Doctrine as data.

DOCTRINE AS DATA

A Dissertation Presented

by

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ABSTRACT

DOCTRINE AS DATA

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Doctrine as Data examines the issues and opportunities around machine acquisition and analysis of legal doctrine. This work sought to treat doctrine as data, as a clump of federal appellate case opinion texts, which could be procured and empirically analyzed with information processing technology. Doctrine is a nimble knowledge structure however, existing as a clump as well as a logic where parameters and understandings in case law are constituted. The subject doctrine for this project, compelling interests of the strict scrutiny balancing test, proved to be a logic where notions of legitimate police power and individual rights are established. That logic is flexible, politically sensitive, and responsive, going beyond opinions from a myriad of cases said manifesting doctrine.

Doctrine as Data examines information systems and their practices of indexing and accessing appellate case opinions to explore whether these systems are significant to sustaining, or challenging, conceptualizations of doctrine in cases. The examination consists of defining, identifying, and collecting appellate case opinions exhibiting the compelling interest doctrine using the preeminent hard bound and computer legal information systems (i.e. West's digests and reporters and Lexis / Nexis respectively). The project also introduces a new tool, the InQuery search engine from the University of Massachusetts' Center for Intelligent Information Retrieval, to analyze that collection for conceptual coherency attributed to doctrine, i.e. to probe doctrine's presence in, and

relationship to, case opinions. It appears however that doctrine exists outside of cases, or rather, is attributed to cases through traditions of legal practice, commentary, and scholarship moreso than in the systems created to manage law's hard data.

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CHAPTER I

DOCTRINE, DATA, AND MACHINES

A. Introduction

Doctrine as Data explores information machines[1] and practices of knowledge management as they help constitute meaning for legal doctrine. Legal doctrine is a knowledge structure, a textual signifier for the contested meanings, and contests of meaning, for judicial decision making and case opinions. Those contests, and their authoritative results, are sustained across diverse practices of law, politics, commentary, and scholarship. Doctrine however is intimately associated with law's hard data, case opinions, and by association with the systems and traditions for managing and providing access to that data. To examine how doctrine is made meaningful through law's information machines, if it is made meaningful, this project treats case opinions as data upon which information machines and analytical processes may toil, and where doctrine is said to take its most common from.

Legal information systems for storing, indexing, and providing access to case opinions are primary tools for legal professionals and scholars. Organization and meaningful manipulation are the key practices helping shape how case opinions are encountered and ultimately utilized or interpreted. This project examines several of these practices and information machines in a constitutive analysis[2] of the compelling state

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[1] A machine, or information system, is not a formal designation, it is a loose signifier, representing any method and/or mechanism devised to order and organize access to a collection of data objects. Alphabetization of a rolodex with index cards for individual entries is a simple example. "An information system is an ordering of any form of data in a way that makes it understandable and retrievable. Think of every information system as having two parts. The first part is the database of information, the second part is the organizing system. No matter what form of information system one approaches, these two principles come into play. The information system model can be used to arrange pure data, or to array objects. It is as complex as an enormous on-line database, or as simple as one's wallet" (Berring, 1994: 50).

[2] John Brigham (Brigham, 1996) outlines constitutive examinations of law and legal phenomena by paying attention to the social practices which make them meaningful, giving life to the forms and

interest doctrine in religious free exercise law.[3] Doctrine as Data explores whether, and the manner in which, these practices manifest, incorporate, sustain, enhance, or alter doctrine in an area of constitutional law. Or, is doctrine less in the bodies of opinions (i.e. as a clump), in the words of the text, and more in the shared understandings (i.e. as a parameter) of those texts by commentators and judges operating with the formal authorities of West digests and reporters or Lexis/Nexis?

This exploration of doctrine and case opinions through legal information systems is part of a constructed story. That story originally was designed to use the InQuery[4] search engine to examine the conceptual content[5] of a collection of cases delimited by the compelling interest doctrine in free exercise law. That doctrine represents a tension, or more accurately is the site for a tension to be legally manifested, between conceptions of legitimate state action and notions of individual freedom; it is the site where a boundary is drawn and re-drawn through the vagaries of case law, statutes, statutory interpretation and implementation, administrative rules and decision making, and ultimately in appellate courts. At such boundaries, legitimacy seems critical to the state's role, and coherency attributed to the relationship between state and individual (i.e. line drawing), is normatively positive. In the American version of the common law tradition, especially within federal appellate courts, coherency is the lifeblood of the relationship suggested between doctrine,

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concepts in law. Brigham suggests that texts can also be examined in this manner, that is, law's texts can be explored through the practices which make them meaningful.

[3] Compelling interests is a standard said residing in individual rights law. It represents one element in a balancing function which weighs an individual's rights against the loosely defined interests of the state. In free exercise law, the doctrinal signifier compelling interests (and its many synonyms) is commonly held to define the standards of practice for evaluating cases where a state law or policy, or conceivably inactivity, was claimed to deny an individual of his/her rights to exercise their religious beliefs.

[4] InQuery search engine is an probabilistic inference information retrieval tool developed by the Center of Intelligent Information Retrieval at the University of Massachusetts. InQuery is the backbone of the InfoSeek WWW search engine, the THOMAS Library of Congress legislative database

[5] Concepts for the purpose of InQuery, and Information Retrieval generally, are considered to be lexically contained in noun-phrases (i.e. single nouns or strings of nouns and connectors). InQuery allows for the examination of occurrence frequencies and associations between noun phrases across a text collection.

precedent, and stare decisis, as it flows through the case disposition process. Coherency is part of many views and ideologies about law, about order, about rule of law; doctrine and precedent are often measured against coherency. It is quite likely however that coherency, as with notions of rationality in judicial reasoning and product, is as much the result of rhetoric and tradition (i.e. of the use of powerful language persuasively in particular contexts), as it is universally valid metrics.

Originally, the goal was to explore, using contemporary information machines, whether doctrine's presence, as a clump of data objects, correlated to any coherency in the text of those cases, i.e. did judges reason and craft opinions in such a way as to imply a pattern of treatment, or at least consistent methods of case disposition, with the compelling interest doctrine in religious freedom? Doctrine however is a knowledge structure of some abstraction, a product of practices and relationships itself, a knowledge structure which is difficult to sustain[6] in formal information machines without the guiding hand of knowledge experts.[7] Thus, Doctrine as Data took a reflexive approach, to examine information systems as they shape understandings of doctrine and cases, while simultaneously using those machines to identify and explore compelling interest doctrine in a collection of cases.

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[6] Sustain here in the sense of its identity or meaning being clear, known, and relatively static and resistant to rapid change.

[7] Knowledge expert is a loose categorization or signifier for a class or sub-group of individuals from domains of social activity who organize, provide access to, and structure information relevant to their institutional pursuits. In law knowledge experts are not simply those who possess the greatest collection or recollection of data (i.e. facts and rules and processes) but are constituted by opinion crafters, select commentators from judicial, political, social, and scholarly ranks.

B. Streams of Thought - Background

1. Asthma, Shakespeare, and Compelling Interests

A collection of doctor's notes on asthma and a dispute over whether Shakespeare was the author of recently uncovered works are not typical places in which to ground sociolegal investigations, but this project is different. A large public health database and a textual analysis system to map the occurrences of phrases and words in the works of Shakespeare provided the spark of inspiration for this project. Each system showed how information not initially evident while looking at individual data objects, or even a sequence of objects, may be uncovered or constructed by investigating relationships and patterns within and between data objects in a large collection of related texts.

The Center for Intelligent Information Retrieval (CIIR) at the University of Massachusetts developed a national database of doctors' notes regarding asthma and breathing related difficulties using the InQuery search engine (Aronow, et. al., 1995: 309-313). The database was designed to assist health maintenance providers develop coverage policies for asthma and breathing problems amongst members in addition to providing a large collection of information for both actuarial and medical research purposes. InQuery databases support natural language processing of users' queries and return all documents that either contain supplied search terms or contain terms or phrases which highly co-occur with supplied search terms.[8]

As part of the testing of this system, and also to define the coverage space of symptoms related to asthma, doctors were asked to query the database with search terms and phrases they thought indicated the representation of an asthma attack, and thus would return appropriate doctors' notes. Doctors came up with terms like, "shortness of breath," "difficulty breathing after exercise," "cold weather," "wheezing," to supply to the search

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[8] Natural language queries are simply information requests composed of everyday language instead of structured query languages grounded in things like Boolean logic.

engine in hopes of returning doctor's notes which indicated an asthma attack. InQuery automatically expanded the doctor's query by adding to the supplied search terms those terms or phrases which occurred with the supplied terms relatively often (i.e. high co-occurrence). What the doctors did not know, and what InQuery was able to expose, was that the phrase "night coughs" also appeared to highly correlate with documents indicating asthma attacks. That is, "night coughs" had a high co-occurrence with some of the doctor supplied search terms, therefore InQuery returned documents with night coughs in them, a large number of them could be described as asthma exacerbation or attack reports according to the reviewing doctors.

InQuery took a knowledge representation and request from the users and derived more information by exploring the textual environment around the supplied search terms in the document collection, by assessing relationships that exist across the corpus, and using those relationships to support the information retrieval task. InQuery uncovered information, a textual correlation between the occurrence of "night coughs" and other indicators of asthma attack. Information becomes knowledge however when it is incorporated in the systems of understanding about asthma and its symptoms, when it becomes an assessment of the data which either makes sense or leads to sensible improvements in understanding and treatment.

In another realm of inquiry and investigation the patterns of words across a related corpus was significant in arguing authorship. During the late 1980's there was a dispute over authenticity of some works thought to be written by Shakespeare (Kolata, 1986:3). A new document, or rather, a newly uncovered document, was considered to be Shakespeare's, but there was doubt and debate in the scholarly community. A software system was employed which derived statistical representations of the patterns of word use in Shakespeare's works, or at least those largely assumed to be his. Researchers compared those patterns with the contested document to make an assessment as to whether it was likely or not Shakespeare had written it.

These efforts showed that it was possible to derive information, and perhaps knowledge, not otherwise possessed by the so-called knowledge experts, by using information systems that identify textual characteristics and relationships across a large collection of related text documents (e.g. doctor's notes or Shakespearean works). Doctrine as Data first asked whether this sort of approach could be applied in sociolegal study, specifically, could a collection of case law, related doctrinally, be explored for textual relationships, patterns, and maybe even coherency using InQuery? Could more be learned about the structuring power of doctrine by looking at a doctrinal collection cases with InQuery? In this project compelling interest doctrine was to be analogous with asthma, and the search then becomes for free exercise law's own night coughs, and making assessments or interpretations of them for a different realm of information expertise.

The compelling interest balancing test in free exercise cases at the federal circuit of appeals and Supreme Court has been the site of political controversy and activity in the 1980's and 1990's. In this form compelling interest doctrine is a logic, setting parameters of understanding and associating meaning to hard objects like cases and law. As such it provides fertile ground for the politics of boundary setting between legitimate state power and individual rights.

The standard for deciding free exercise appeals, cases where an individual claims a state policy or law either directly or indirectly interferes with their right to freely exercise their religious beliefs thus contravening the First Amendment, is the strict scrutiny test. As part of that test the Supreme Court had established the compelling interest standard in the 1960's in this area of constitutional law (Sherbert v. Verner, 374 US. 398, (1963)). The test asked, amongst other things, whether the policy at issue served a compelling state interest, and therefore superseded the religious free exercise claim. That standard had come under some attack in the 1980's as federal and state prisoners used it to file numerous claims against prison administrations, criticism tended to focus most on the difficulty in

assessing what was compelling, and even whether the courts ought to be making that which seemed to be a policy or legislative determination.

The Court changed doctrinal course in 1990 with the Smith, 110 S.Ct. 1595, (1990) decision and justice Scalia's majority opinion regarding religious free exercise and prohibition of peyote use. Justice Scalia criticized the proffered existing strict scrutiny standard and specifically the compelling interest doctrine supporting it while at the same time re-articulating judicial treatment for at least free exercise cases. Rather than subjecting the challenged law or policy to strict scrutiny and attempt to identify and balance relative interests, appellate judges should only determine whether the challenged law or policy is discriminatory, facially or one would suppose, disparately impacts upon an identifiable group. Weighing interests and identifying them as compelling is the realm of policy making bodies like a legislature writes Justice Scalia. And thus by default, if the legislature conducts policy making with all considerations of due process, then whether the interest is compelling or not, does not seem to rise to the level of a constitutional question.

In the wake of Smith Congress moved to pass the Religious Freedom Restoration Act (RFRA - 42 U.S.C. 2000bb to 2000bb-4 (Supp. V 1994)) to re-install the compelling interest doctrine's balancing standard in appellate court review of free exercise cases. The RFRA has subsequently been overturned by the Supreme Court in City of Boerne v. Flores, 117 S.Ct. 2157, (1997) as an unconstitutional usurpation of judicial power by the legislative branch. This political and judicial jockeying brought the doctrine considerable attention, and has shown it to be a robust and ubiquitous knowledge structure, showing up in balancing acts throughout constitutional decision making. Compelling interest doctrine's role as a logic or site where a particular form of political action or tension takes place is further solidified when its ubiquity in constitutional rights law is exposed. Questions arise as to when interests are compelling, generally and in specific contexts like religious free exercise? How an interest became compelling? And, what sort of balancing test procedures

exist for assessing the relative merits of a state interest or conversely of an individual's free exercise interest?

Compelling state interests have never been fully defined, or outlined as a semi-formal institutional practice of appellate courts. Neither had an area of law, like religious free exercise, been empirically investigated with information machines which pay particular attention to word occurrence and co-occurrence patterns. A federal circuit court judge had the insight to probe this area of case law with what was then cutting edge technology, Lexis/Nexis. Judge Noonan[9] was able to show that in a large number of cases where violations of religious free exercise were claimed, that the purveyors of official acts prevailed.[10] In a subset of those cases it is reasonable to expect that a compelling state interest was found to exist, and was a factor in upholding state policies. There is as of yet no standard determination for the existence of such interests, this gap has been commented upon by other appellate judges.[11] Judge Noonan made a contribution to our knowledge of free exercise and compelling interests, and he showed the power and potential for computer assisted legal research into structures like doctrine.

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[9] In Equal Employment Opportunity Commission v. Townley Engineering & Manufacturing Co., 859 F.2d 610, (1988), dissenting Judge Noonan determined that in the wide area of First Amendment cases that very rarely is a challenge to governmental policy sustained. This seems at odds with the words of the compelling government interest in the First Amendment realm, that is, "that the policy is least restrictive and that it serves a compelling government interest." Intuitively this would appear a high hurdle to jump, but yet state and federal policies have enjoyed significant success when challenged, i.e. compelling interests and least restrictive means are apparently easily secured.

[10] Specifically, Judge Noonan had his law clerk perform a Lexis search to find a batch of cases where the term "free exercise" was within 10 words of unconstit! or relig!.

[11] In Waters v. Churchill, 114 S. Ct. 1878 (1994), a free speech case, the Court declared its concern over the doctrine, We have never set forth a general test to determine when a procedural safeguard is required by the First Amendment--just as we have never set forth a general test to determine what constitutes a compelling state interest. This opinion cites Justice O'Connor's opinion in, Michael Boos, J. Michael Waller and Bridget Brooker v. Marion S. Barry, Jr., Mayor of D.C., et. al., 485 U.S. 312, 1988 where she goes through the determination of whether a compelling interest exists in the federal governments limiting access to foreign embassies for the purpose of political protest; there is no apparent model or guideline upon which O'Connor builds her case.

C. The Robust Model

1. Doctrine as Data for Information Machines

This project was designed to treat legal doctrine as data (i.e. as a clump) for empirical analysis, attempting that however showed doctrine to be a flexible knowledge structure constructed and deployed in commentary, education, case disposition, and opinion production. Yet, doctrine's relationship to appellate case opinions is foundational regardless of the particular form doctrine takes. The original goal of the project was to explore the conceptual domain of the compelling state interest doctrine (i.e. as a clump) by subjecting a collection of case opinions tied together by that doctrine (i.e. the logic or knowledge structure) to computer analysis in search of coherency[12] distinct from that attributed to cases by scholars and practitioners.[13] The InQuery search engine presented the opportunity to identify concepts and their occurrence and co-occurrence frequencies across a collection of related documents.[14]

It was hoped that InQuery could be used to ascertain whether doctrine was manifested structurally in case opinions, to investigate whether there were patterns in concept occurrences and associations which correlate to doctrine's supposedly determinative role in two groups of federal appellate free exercise cases, i.e. those where the state's interests prevailed or were in essence compelling, or those where individual

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[12] The coherency of doctrine is rigged to a degree. Authoritative understandings and expert knowledge of doctrine and cases were used to define and construct the corpus (i.e., supreme court and federal circuit courts of appeal, focused around the First Amendment and its protections of religious free exercise, operational in particular period (1963-present)). And, the language of a balancing test will be present throughout. But that is a wide conceptual net, or rigged coherency, InQuery can identify all concepts, if there are patterns or occurrences of interest beyond those used to select the collection we may find them with InQuery.

[13] Clearly the definition of the data set, or collection of cases, relied on expert knowledge, and the application of that knowledge in the determination of what should be in the collection and what should not. That knowledge is part and parcel of a community of individuals, situated in and around legal institutions and the research thereof.

[14] Occurrence frequencies are simple counts of phrase / term occurrences in the texts; co-occurrence frequency signifies the spatial relationship between phrases and terms.

rights claims trumped state interests. The project sought to determine whether collected cases were tied together primarily by expert knowledge brought to bear in legal information management, or instead, was there something in the cases themselves which could be argued suggested a variant of coherency and bound them together beyond some basic textual common denominators?

The project originally sought to augment the study of judicial politics by viewing doctrine, and the cases manifesting it, as part of what has been considered a discourse[15] where conceptual contests (Connolly, 1974) and affirmations of law's coherency take place. Scholars following in the realist tradition take a skeptical or critical view of doctrine, claiming it is indeterminate, used to rationalize and situate those decisions in traditions of interpretation (Gordon, 1984; Kennedy, 1979; Kerruesh, 1991; Barkan, 1987). Coherency or consistency conferring from doctrine is contrived then, hiding the real reasons case decisions are made (e.g. behavioral or political or otherwise sociological). Doctrine however still provides elements of meaning to decisions and case opinions. Compelling state interest, while it may be superficial rigmarole, still appears to matter to judges, lawyers, advocates, disputants, and observers of cases by structuring expectations and relationships and enabling the domains of winners and losers in legal contests between individual faith and public welfare.[16] Compelling interest doctrine in religious freedom jurisprudence also seems to matter significantly to Congress, as it is debating, as late as the Summer of 1999, and moving forth on another attempt to reinvigorate the compelling

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[15] Discourse has become a term used so often as to almost lose its shape, therefore for a brief survey in socio-legal use see (White, 1990; Smith, 1994, Davies, 1996; Smith, 1995)

[16] A constitutive assertion: Law generally, and legal knowledge structures like doctrine specifically, take ultimate shape a wide range of social and political contexts. For more discussion See Brigham, Const. of Interests 1996, which significantly for this project suggests a constitutive approach to understanding law's texts is possible, presenting a way to examine law's authoritative data through the practices which provide for understanding them.

interest standard[17] expressly jettisoned by the Supreme Court in Smith in 1990.[18] Compelling interests in the domain of religious freedom is still being constituted, and likely never will be entirely static, it remains a vibrant logic where policy and cases and social movements and individual rights are made meaningful, it is a structure exemplifying the reflexive relationship between law's authority and its evolving social reality.

2. Law's Words and Phrases in Context

Karl Llewellyn's oft cited Bramble Bush (Llewellyn, 1930) includes a treatise on the flexibility of judges within a framework of legalism and disputes; in disputes, subject to legalism's structuring power, doctrine is most pronounced. Llewellyn, and other realists (e.g. Frank, 1935; 1949) refer to practices like precedent and stare decisis as doctrine, and used rules to describe more specific practices in and around case disposition. It is useful for the distinction to be flattened by stipulating that doctrine, such as compelling state interest, exist in a subset of a general class of legal rules. These rules may include broad notions of practice like precedent or specific constructs like the "strict scrutiny balancing test." Compelling interest's particular class of informal rules are developed incrementally through case disposition, building a precedential momentum, providing either routes of judicial action or rationalizations for routes of action.

Llewellyn details the act of making sense of the language, and practices behind, appellate opinions, and assessing the resulting law (Llewellyn, 1930: 25-69). Llewellyn claimed that in order to grasp a case you must read it knowledgeably (Llewellyn, 1930: 41). To do that you must know the words contextually in addition to an empirically positive knowledge; understanding is grounded in positive definitions of words, and their possible roles given a language's grammar and idiosyncrasies, as well as narrower context

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[17] The Religious Liberty Protection Act - Summer of 1999 (H.R. 1691)

[18] For a more detailed history of compelling interests in Free Exercise, and the subsequent efforts of Congress to contravene the Smith decision, see Chapter 3.

specific relationships. The latter depend on practices of word or phrase use and associations amongst them that develop over time, and the affirmation and replication by subsequent knowledge workers who develop and sustain them, "the life of words is in the using of them, in the wide network of their long associations" (Llewellyn, 1930: 41).

The study of law and language focuses on the manner in which language structures particular legal understandings and contexts, how law is interpreted, and ultimately how it is applied and socially constituted (Brigham, 1978; Conley and O'Barr, 1990; White, 1990; Fish, 1980; Constable, 1998). Brigham's Constitutional Language, an early effort to refocus public law analysis on a specific legal language and domain specific concepts, explored grammars in constitutional discourse. Grammars and associated practices of word use give life to that language and those concepts by delimiting when constitutional utterances are reasonable and unreasonable, when they "make sense" (Brigham, 1978). Perhaps part of that sense making is manifested in relationships between concepts as constituted in word or phrase, and could be explored with tools that identify concepts (i.e. phrases) and their occurrences and associations (e.g. InQuery).

Hanna Pitkin also explored the way legal language and words become meaningful in her writing on Wittgenstein and Justice (Pitkin, 1972). Pitkin, appropriating the work of Paul Ziff (Ziff, 1960), argued that words become meaningful through their repeated and expected use in context, in "cases." Rather than being conceptually fixed signifiers for static meanings, many words are ever evolving, always though dependent upon use, acceptance, and repetition. Phrase or word, "meaning is determined by the word's distribution in language, the linguistic environment in which it occurs" (Pitkin, 1972: 11). Pitkin argued that the meaning depends on the "set of other words that can also normally occur in its position in those expressions," and "the set of expressions in which it occurs normally" (Pitkin, 1972: 11).

The InQuery search engine identifies nounphrases[19] and their occurrence and co-occurrence frequencies in document collections. Scholarship in information retrieval has shown that nounphrases, especially those occurring most often, in a domain specific[20] text collection, often convey significant meaningful content for that collection.[21] Information in the form of occurrence frequency and co-occurrence association statistics has implications for knowledge of a corpus of related texts. Often that knowledge is redundant in that it mimics or signifies a key characteristic for the corpus (e.g. in doctors' notes "asthma" is a highly occurring nounphrase). It is possible though that the knowledge is novel, like that of night coughs being a strong indicator of asthma, hardly redundant, perhaps even financially and medically significant. This project hypothesized that occurrence and co-occurrence frequency statistics for nounphrases across the collection could be utilized to explore compelling interest doctrine. Specifically, this project sought to probe for the correlation of compelling interests doctrine with patterns and distinctions between two groups of opinions, i.e. those religious free exercise cases where the state's interest prevailed and those where such interests were trumped by an individual rights claim.

3. A Robust Machine

At the dawn of the computer era political scientists suggested that electronic data processing presented new opportunities to study law and the decisions judges make (Lovenger, 1963). This project adopts that Jurimetric suggestion at a significantly later date. At its most abstract this project proposed to construct a metaphorical machine comprised of a number of individual information management systems, each system would

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[19] Nounphrases are simply strings of nouns and connectors, typically one word, but often complex expression.

[20] The specificity of the domain in this project is cases representing Free Exercise of religion and exhibiting a balancing test signified by compelling interest doctrine.

[21] See Information Retrieval scholarship: (Justeson and Katz, 1995; Jing and Croft, 1994; Croft, et. al., 1991).

be part of a process of identifying and collecting data objects[22] with distinct attributes[23] to be analyzed as an aggregate by InQuery. InQuery is the last part of that process, and performs textual examination of data objects identified and collected under the compelling interest rubric. This model was considered robust because it was designed so that users could stand well removed from the machine, simply querying it to identify and collect cases meeting a particular characteristic, or characteristics, and then using InQuery to look for textual patterns or coherency in subsets of those cases. For instance, it was designed so that a researcher could ask InQuery to produce occurrence and co-occurrence frequency statistics for all those compelling interest cases where Justice Scalia wrote the opinion and the state's interest prevailed, in hopes of finding patterns to those opinions or other such subsets.

The case collection was originally to be defined in purely textual terms (i.e. using a profile[24] possessing particular terms and phrases in defined patterns), and collected from a full text database (i.e. Lexis / Nexis or Westlaw) by executing automated, hands-off, searches derived from the profile, and then some cursory human examination of those cases was planned to tag data objects for later data set subdivision and InQuery examination. The process of trying to implement the robust model however raised fundamental questions about the target doctrine, and consequently about doctrine as a knowledge structure in law, and how systems for managing law's information help constitute the meaning for doctrine and cases. The attempt at automated, hands off data set

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[22] Data objects are appellate cases for these legal information systems. The machine metaphor corresponds to information management systems like that of the Lawyers Cooperative, West digests and reporters, and other authoritative systems of primary source organization and access. Systems like Lexis / Nexis and Westlaw are in fact electronic computational machines to which users connect via computer networks.

[23] Attributes is a semi-specialized term. In information retrieval an attribute is a characteristic or meaning associated with a particular data object or objects. See work (Sartori, 1970) which suggests that attributes, fact patterns, or other observed characteristics, are authoritative in segregating data collections.

[24] Compelling state interests balancing tests or standards possess several textual signifiers, therefore cases had to be screened for the presence of those terms, phrases, and concepts. As explained later this was attempted both via automated computer searching and screening, as well as interactively with a computer and hardbound digest

definition and acquisition problematized, or at least brought into relief, doctrine's identity, a notion made meaningful through traditions of legal practice, education, and scholarship which define things like a doctrinal space and operate accordingly. Doctrine is a chameleon, yet one that takes on different roles depending upon the setting and the needs of relevant actors. At one instant doctrine is considered a clump of cases, or at least delimiting and defining that clump, describing a particular area of judicial practice and law. At other times, while it is apparent that doctrine is a central product and currency of those intellectual and professional traditions, it is more like a logic or a arena where knowledge about an area of case law or judicial practice is constructed and contested. This duality challenges information management systems, doctrine as a clump may be a knowledge representation that can be articulated in an information management system, cases considered in that clump could simply be tagged with an identifier by the information management system (i.e. field identification and value assignment). But, since doctrine is often more than just that clump, and is likely not fixed in its meaning in any one context, the current information management systems in law may or may not be able to incorporate all knowledge of doctrine from those traditions into indexing structures and practices, and thus may create tensions between what these systems present and the intellectual world that most system users inhabit.

D. The Reflexive Model

1. An Evolution - Challenges of the Robust Machine

The robust formulation was overly ambitious from both a practical (i.e. technological) and substantive (i.e. subject matter) perspective. Early in the process of trying to implement the robust model it was apparent that an information representation of compelling interests within a particular area of constitutional law (i.e. free exercise of religion) and over a defined domain (i.e. Supreme Court and federal circuit courts of appeals) challenged both automated collection with full text search tools and our

understandings of doctrine. Scholarship which tested the efficacy of full text information retrieval systems (Blair and Maron, 1985) suggested that using full-text tools to identify a collection of cases tied together by an abstraction or complex expression such as compelling interest doctrine could be difficult. Yet because compelling interests were considered relatively constant in free exercise cases between 1963 and the present, and were an expressed and seemingly important part of its jurisprudence, it seemed reasonable to attempt automated collection via Lexis / Nexis or Westlaw. Additionally, the robust model included the goal of stepping away from knowledge experts and authority as much as practical (i.e. hands off data set acquisition), to see just how doctrine influenced the case opinions, led to an attempt at automated collection via Lexis / Nexis. This proved largely impossible, as full text searching for cases representing the determinative use of compelling interests in free exercise law produced many false positives (i.e. data objects that satisfied the search query but were not "on point"), and also missed cases which are known to be relevant as determined either from random sampling or scholarship and commentary.

Difficulties with full text tools and data set definition and discovery forced a re-examination of what was being asked of the machines, and the doctrinal profile created as an information representation Lexis / Nexis could search on, as well as the very nature of the doctrine itself This difficulty was only enhanced when held against the effort to control as much as possible for the authoritative understandings of doctrine.[25] To pursue a lexical analysis of a collection of doctrinally related case opinions with InQuery required relying on doctrine being a relatively fixed notion solidly in the minds and practices of law professionals and scholars, and more importantly, as textually present and significant in case opinions. Doctrine's presence is indeed fixed, but beyond that there is fluidity and

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[25] Controlling for authoritative notions of compelling interests in Free Exercise was a half hearted endeavor, the reality was that a searcher had to consult authority, or be educated/ trained in a context where intellectual authority about constitutional law was clearly present, was a default. At best what we sought to do was use authority to structure the parameters of our searches (e.g. between certain dates and including cases from certain substantive areas), after that we searched blind. That is, once establishing the basic parameters of the data set we then looked for data objects within that had some very basic textual characteristics.

debate, indeterminacy and politics, doctrine is in the cases, or at least attributed to them, but parsing doctrine out easily, or even identifying the cases which manifest it, was a difficult proposition.

Attempting to use Lexis / Nexis for data set definition and acquisition showed that authority (i.e. from knowledge experts) is essential to doctrine's presence and influence in the meaning of case opinions and areas of law. It was impossible to gather the doctrinal collection without significant reference to knowledge experts who attribute substance and style to things like doctrine. To know which cases exemplified the determinative use of compelling interests scholarship had to be consulted to assess when and how compelling interests were applied in domain specific decisions. But is that authority around compelling interests sustained in the cases as data? As objects in the various machines of law's information? Do the highly indexed and editorialized machines like West's digests and reporters sustain that authority? Or is that doctrine too inconsequential an abstraction for West's editors to notice? And by association, is the expanding universe of legal information systems destabilizing to abstractions like doctrine? Do we need authority, or is it undermined, in an arena where everyone has the tools the make what they will out of the product of judges?

2. Doctrine and the Practices of Law's Machines

The proposed exploration of doctrine through information machines assumes that doctrine could be treated as data in the form of appellate case opinion texts, and as a logic through which the meaning of those texts, not to mention judicial practice, is articulated. Data is acquired or interpreted from a source phenomena, and made meaningful through practices of information management and presentation, be they of neurons, parchment, or electro-magnetic discs. Data becomes information, becomes meaningful, in the service of knowledge workers and their practices. Machines of legal information depend upon and structure attributes of law's data, this work explores that with respect to compelling interest

doctrine. It explores how different machines are used to present, or make available, opinions tied together by doctrine, or at least the expert knowledge which suggests doctrine is at work within. Machine is used metaphorically here, referring to the technology, practices, and knowledge structures employed in manipulating data objects, making them meaningful information. Decisions about laws hard data, i.e. how cases are organized and indexed, are specifications incorporated in machines. Those decisions directly influence how users experience case law because the machines provide specific interfaces between data and user. Interfaces, and the knowledge representation schemes under girding them, do more than allow unencumbered access to law's hard data, they shape how it is known and applied.

Practices develop for identifying, collecting, and manipulating cases relative to understandings of them. Traditional case management tools like West's digests and reporters were built around editorial practices of data manipulation, subject area categorization, synopsis creation, and key numbering. Newer tools use different practices, for instance the adoption of universal indices in full-text Lexis/Nexis, and the application of concept occurrence and co-occurrence frequencies to aid in document retrieval in InQuery. This project turns its attention to those practices and their influence on notions of doctrine and case opinions.

3. Constitutive Practices and Doctrine

This work ultimately presents a constitutive analysis of doctrine and case opinions. That analysis is conducted through an examination of information practices which shape meaningful attributes for legal doctrine and case opinions through organization, categorization, access, and case opinion retrieval. Such an agenda calls not only for an investigation of machines like Lexis / Nexis and InQuery and their relationship to doctrine, but of epistemic or scholarly communities who construct and use doctrinal formulations. Constitutive socio-legal study (Brigham, 1996; White, 1990) examines how law and its

forms become meaningful through social practices which give them palpable substance (e.g. see Brigham, 1987). Resulting social contexts, and attendant beliefs, attitudes, and actions thus constitute law's forms and structures. Law's meaning is not interpretively fixed in the proclamations of judges, legislators, and policy makers, but rather in ever evolving institutional and social contexts and practices giving shape to those proclamations.

Brigham suggests that constitutional concepts and provisions are constituted, made meaningful, through social and political interests as they organize and act relative to authoritative understandings of those concepts and provisions (Brigham, 1996). As an example, to examine constitutional free speech scholars should look beyond the authoritative formulations and commentary of law's knowledge experts, and pay attention to how free speech is manifested in society, especially in those places where individuals or groups are attempting contest or reaffirm authoritative understandings of free speech for specific ends. Brigham indicated that constitutive analyses of law's texts is also possible by examining the practices which make those texts meaningful (Brigham, 1996: 5) Doctrine as Data extends constitutive analysis to doctrine and case opinions, doctrine attributes meaning to cases, and is itself sustained by practices and traditions of legal knowledge experts (i.e. judges, legal scholars and commentators, lawyers). This project investigates whether legal information systems managing case opinions sustain or alter the meaning of doctrine, and thus of case opinions said doctrinal.

E. Doctrine as Data

1. Clump and Logic

Cases are still central data objects in the study of law and politics. Attention to ideological and political variables in judicial voting and decision making have not displaced attention to case opinions (Segal and Spaeth, 1993). Formalism[26] is a powerful notion in

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[26] Formalism as an explanatory model, and epistemological framework, is said to have been displaced by Realism. Formalist approaches to law and legal scholarship asserted that there was still

practice if not in theory, and as scholars strive to understand law and politics the significance of opinions and doctrine must be considered, to do so attention need be paid to practices which help make them meaningful to specialized communities and the greater social context.

This project began with the intention of treating doctrine as a clump of data, to isolate doctrine and expose it to rigorous empirical analysis using computer databases and information retrieval search engines. At that point doctrine seemed a reasonable object to study in this way, having spent several years working with legal scholars and cutting academic teeth on civil liberties, the Supreme Court, and judicial politics. Doctrine is a large part of those traditions, and to make the statement that one was going to study doctrine via computers seemed plausible if unusual.

> The doctrines of the law are built from findable pieces of hard data that traditionally have been expressed in the form of published judicial decisions. The point of the search is to locate the nugget of authority that is out there and use it in constructing one's argument. (Berring, 1994: 11)

It is evident however that doctrine is never quite as fixed as it might seem, and most certainly cannot be bundled into case opinions as data without explanation. Simply because doctrine is part of everyday law talk, and is one of the first structures we cling to when organizing cases into indexed collections or merely useful bundles, does not mean it can be studied like a biological specimen.

As a logic or parameter doctrine is an abstraction for judicial practices and standards corresponding to categories of case law. For example, doctrine associated with First Amendment cases underwrites and organizes Court treatment of clauses within the Amendment. Establishment clause doctrine might delimit state actions that are immediately suspect, and how such suspicion might be manifested in Court product (i.e. decisions and opinions), and even include a three pronged testing schema for a pseudo-scientific

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explanatory and authoritative power in traditional legal notions such as doctrine and precedent; Realist notions decried such a reliance on structures so inherently interpretive, and proffered instead that individual characteristics and variables ought to be explored for their determinative influence on the law.

determination of discrete results in church and state cases. Free exercise might also have associated doctrine, one currently espousing nominal neutrality toward policies which impact social practices which may be argued are religious in nature, and lower levels of judicial scrutiny rather than accommodation and highest levels of scrutiny of those same policies. Compelling interests represent a knowledge structure in free exercise case law, signifying a standard which describes the balancing of interests by courts. The challenge is to tie doctrine to the written opinions of Supreme Court justices and federal circuit court judges, to tie logic to clump, so that doctrine might be looked at as data.

2. Doctrine Within the Words and Phrases of Case Opinions

Doctrine is said to reside within case opinions, or be associated with them in some determinative way (Levinson, 1994: 1039). Therefore, the first place chosen to look for doctrine is in the texts of opinions.[27] Cases are ordered to fit pre-existing categories or areas of law in systems like West's digest and reporter, doctrine may be part of the knowledge base used to construct those distinctions. There are external forces at work in shaping the terrain of indexed case law. Knowledge experts (e.g. West editors) manage information systems through data object editing, categorization, indexing, and use / access. Each practice is relative to an interpreted or mediated view of the data objects, derived from internal characteristics of those objects no doubt, but also strongly influenced by interpretations of those characteristics.

In this project Supreme Court and federal circuit court opinions were examined for the expressed treatment of a particular doctrine, of compelling interests in constitutional free exercise law. The goal was to see whether the doctrinal signifier was consistent in form and / or presence, or whether that presence is consistent figuratively only, a presence that

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[27] In this context, ascertaining the use of the phrase doctrine in a collection of cases that are tied together by the doctrine of compelling state interests in free exercise of religion law might shed some light on whether the Court considered compelling interests a doctrine, or whether they considered doctrine at all.

was largely interpretive or editorial rather than in the texts themselves.

The most obvious place[28] to explore this was in the batch of cases collected for this project, authoritatively placed within a West digest category of cases under the rubric religious liberty and freedom of conscience and containing a standard, balancing test, or doctrine otherwise known as compelling interests.[29] After collecting the cases, using a database management tool (i.e. Folio-Views) the collection was searched for the occurrence of the phrase "doctrine," the text window[30] surrounding encountered occurrences was scanned. In the collection of 186 case opinions the word doctrine appeared roughly 200 times, 2/3 of those occurrences though represented discussions of so-called "religious doctrine," not legal doctrine. This makes sense since the essential subject area of this collection is religious freedom, and very often claimants argue that state proscribed actions stem from religious doctrine.[31]

The remaining occurrences though referred to legal doctrine in various levels of abstraction. The following is a partial list of types of doctrinal formulations: "standing," "fairness," "Free Exercise," "intra-military immunity," "sovereign immunity," "least restrictive alternative," "separate but equal," "dangerous," "mootness," "collateral consequences," "substantial compliance," "equal footing," "overbreadth," "void for vagueness," "First Amendment," "disallowing a defense of ignorance or mistake of law," "official restraint," "misplaced confidence," "invited informer," "plain view." Nowhere in

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[28] Obvious in the sense that the collection was in possession, and that if these cases were in fact tied together doctrinally, they might well express that openly. Please note that this was not really expected however, in fact it was expected that little overt doctrinal recognition in these cases would occur.

[29] A full accounting of the process of definition and collection, and the snafus along the way, is included in subsequent chapters on West digest and reporters and Lexis / Nexis.

[30] A text window is simply all those words and phrases which are within a certain number of words of a given word or phrase. In this case the window around phrases like doctrine was several paragraphs before and after the occurrence of doctrine.

[31] Subsequently reports of occurrence frequencies for nounphrases in the collection were examined. The phrase doctrine did not occur in great frequency, neither did it appear to change distribution with particular subsets of the total collection (i.e. state policy upheld, individual right claim upheld)

the collection was compelling interests referred to as doctrine, however related structures were labeled or associated with doctrine. For example, "the least restrictive alternative" is compelling interests sister under Court strict scrutiny practices of policy evaluation. Challenged policies under Free Exercise claims must have met both to pass constitutional muster.[32] In the cases for this project collection the "least restrictive means" test is also called doctrine, compelling interest however is only referred to as a test, standard, or synonym thereof.

3. Doctrine From the Outside

In scholarship on Free Exercise, and specifically the doctrinal sea change attributed to Smith , compelling interest is shorthand for a balancing test which is a part of free exercise law (e.g. see Smith, 1994: 529). Considerable conceptual variability exists as compelling interests is also called a balancing formulation, balancing component, and a standard. The existence and characteristics of the signified practices and expressions however are largely agreed upon, even if their normative quality or nomenclature is not. Despite the lack of doctrinal language for compelling interests in the cases themselves there is scholarship which speaks of compelling interests doctrinally.

Sanford Levinson's response (Levinson, 1994) to Smith provides a model for this project's treatment of compelling interests as doctrine. Professor Levinson specifically discusses Justice Scalia's Smith majority opinion and his attention to compelling state interests. While the Smith decision not only repudiated the use of that phrase and any associated practices in claims where a state action was said to incidentally inhibit religious free exercise, Levinson suggested that if the compelling interests test had been applied, a compelling interest for Oregon's prohibition of peyote use could have been found. Levinson argued that the doctrine of compelling interests need not have been exorcised, that in examining social and political data such as newspaper editorials, polls, and legislative

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[32] Of course this is prior to Smith, 110 S.Ct. 1595 (1990).

debate and discussion, judges could have reasonably discovered any existing compelling interest. Nevertheless, Justice Scalia jettisoned compelling interest doctrine, declining to look for interests, instead restructuring expressed judicial treatment of religious free exercise cases. What is significant here is Levinson's use of compelling interests as doctrine, it appears unproblematic and as though his interpretive community would make sense of it.

Other scholars in that community bolster this use of doctrine in work which sought to explain legal change in the Supreme Court through a doctrinal lens. To measure change political scientists Epstein and Koblyka (Epstein and Koblyka, 1992) operationalized factors considered independent variables in doctrinal shifts (i.e. dependent variables) in the realm of abortion and the death penalty. Epstein and Koblyka used doctrine as an abstraction for the particular practices and traditions in evaluating and deciding cases in these two realms. There are three things of note in this work which pertains to this project: first, they unproblematically use doctrine to identify an area of case law, and the cases in those areas are then data in the analysis of said doctrine; second, they position their work between formal and sociological / behavioral efforts and their respective treatments of forms of law, and third, they suggest a socio-political significance for constitutional doctrine beyond judicial activity.

> This approach emphasizes the importance of processes and constitutional doctrine in setting the parameters of subsequent political and policy choices. . . Our approach does not deny the utility of other, more sociological frameworks; they tell us much about important linkages between law and society. Rather, for purposes of analytical clarity and depth, and because we think that law as articulated by the Supreme Court sets the general legal and political context for the resolution of any given contentious issue, we confine our study to an assessment of three factors that work to promote or retard doctrinal shifts in the decisions of the Supreme Court: The Court itself, the political environment, and the organized pressure groups lobbying the Court. (Epstein and Kobylka, 1992: 5)

Doctrine as Data strives to refer to doctrine similarly, to signify the expressed practices of the Court otherwise known as the compelling interest balancing test or standard. From that foundation, cases are collected which contain references to the practice as being at least

partially determinative. It is these case opinions which must manifest doctrine if it is to exist at all outside of the knowledge experts of law.

F. Process - Method

The robust model provides the basic parameters of the method for this exploration of practices around information machines helping constitute doctrine and cases. The robust model called for the definition, discovery, acquisition, and analysis of a collection of cases related by the compelling interest doctrine in free exercise law. These steps are the vehicle to study the ways doctrine is shaped through practices of information management. The process now is more than an instrumental application of information machines in an analysis of law's texts, it became a reflexive study of doctrine and the machines and information practices which sustain law's knowledge base and are primary tools of law's knowledge experts.

Doctrine typically comes to these machines in the minds of system designers and users, it may be incorporated in the ways cases are organized and made retrievable, but more likely doctrine remains an intersubjective phenomena attributed to cases, part and parcel of other knowledge bases in and around law. Traditional case management tools like West's digest and reporters were built around editorial practices of data object normalization, subject area categorization, synopsis creation, and key numbering. New tools employ different practices, for instance the universal full text indexing and Boolean querying of Lexis / Nexis, and concept occurrence frequency and co-occurrence mapping in the association thesaurus[33] of InQuery. Each system and their associated practices are examined for the way they make doctrine and cases meaningful for a specific task, the collection and textual analysis of a doctrinal clump of case opinions.

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[33] InQuery utilizes an association thesaurus, or a table of co-occurring terms and phrases, to enhance document retrieval effectiveness (Jing and Croft, 1994).

Doctrine is known in a variety of ways and contexts, Doctrine as Data chooses a narrow domain for examination. How is compelling interest doctrine in free exercise law manifested in the two preeminent machines (i.e. Lexis / Nexis, West digest and reporters) used by legal professionals and scholars? And, how does a new machine (i.e. InQuery) shed light on doctrine's coherency in cases provided by those mainstay machines? West and Lexis / Nexis are queried to, "identify and provide access to those federal appellate cases where the compelling state interest doctrine in free exercise law was part of the expressed decisional mix since 1963." The cases ultimately collected are divided into two categories, corresponding to the supposed influence of compelling interest doctrine, those where state interests prevailed and those where individual rights trumped those interests. The cases are provided to InQuery to further explore doctrine's presence and influence on the retrieved cases relative to that basic breakdown.

Definition represents the creation of search profiles to execute on full text (i.e. Lexis / Nexis) and hard bound (i.e. West digest and reporter) systems. Profiles were designed as information representations which, it was hoped, manifested the determinative application of the compelling interest doctrine in free exercise cases. Compelling interests show up in many areas of constitutional rights law, thus definition would be challenged to gather only those data objects from the desired area of law, i.e. religious freedom. It could be argued that if compelling interest doctrine is the subject of investigation then all cases which use it should be included. However, it seemed that if meaningful patterns or coherency were to be exposed in this fashion, that they were more likely to be observable in a narrower subject area domain, with less textual chatter to confuse examination and analysis.

Discovery is the execution of those searches and preliminary examination of results to determine if in fact the returned data objects represent the doctrine as desired. Discovery is an expert knowledge laden step, notions of "on point" cases with respect to doctrine and subject area depend heavily on interpretations and traditions of understanding cases and

law. Acquisition represents the collection of cases and the creation of a tagged data set for ultimate InQuery text analysis. And InQuery analysis is the processing of the data set to produce statistics which identify the most important concepts (i.e. the most highly occurring) and their interrelationships, thus opening a new manner in which to examine, and ultimately manage, law's hard data.

The following chapters roughly follow those steps (i.e. definition, discovery, acquisition, and analysis). Prefacing these data set and machine specific endeavors, first this work investigates doctrine as a construct in law, and specifically as a vehicle for the compelling interest standard in religious free exercise law. The work ought to be taken as a whole however, each chapter telling a tale about the ways doctrine as knowledge structure is made meaningful through law's informational gates and gatekeepers.

CHAPTER II

DOCTRINE AS LOGIC

A. Introduction

This project explores how legal information machines which organize and provide access to appellate case opinions partially constitute legal doctrine in those opinions. Doctrine is a knowledge structure corresponding to understandings and parameters of practices in law, it functions as a logic through which legal events and objects take shape and meaning. This chapter presents a survey of doctrine's place in jurisprudence by examining its relatively unproblematic existence in the western legal tradition. To do so it briefly addresses the foundations of doctrine by looking at Roman law and the early European legal scientists' resurrection of that law. Bacon and Blackstone's search for legal maxims and their codifying commentaries provide a bridge to the modern period. Finally, theories of formalism and realism of 19th and 20th century America are examined to show distinct positions on doctrine, at once revered and reviled.

This survey crosses traditional lines of inquiry drawn between civil and common law systems. It is done so as part of an analytical perspective which reduces doctrine, facilitated by particular practices (e.g. judicial, scholarly, and editorial) and associated understandings, to a knowledge structure present in many institutional settings and legal traditions. While undoubtedly the substantive understandings of unique doctrine are distinct between settings and traditions (e.g. civil and common), the thing doctrine, the functional abstraction, has a clarity of identity over the boundaries of law's traditions.

B. The Power of Principles - Social Legacy of Political Language

Language presents the power to create worlds. Debates about the contours and authority of these worlds have marked linguistic history. Within western institutions of

politics, war, religion, and law the power of language is expressed through practices of knowledge experts. Doctrine is a knowledge structure specific to such institutions, providing coherence to the meaning of their utterances. The elevation of words and phrases to doctrine is an act of power, words and phrases take on greater significance when associated with official policy, reciprocally, policies are often attributed with rationality or at least authority, when they become doctrinal.

In American politics, presidents have stamped domestic and foreign policies with doctrine, President Monroe set the stage for a century of indigenous cultural and physical displacement from central and western North America, while President Nixon committed our national resources to eliminate foreign interference in South Vietnam and Laos. To those ends doctrines of war and politics were created and employed, events like Wounded Knee and Mylai, rightly or wrongly, come to be associated with them. It is a difficult proposition to suggest that these tragic events were caused by doctrines of war and politics, but certainly the association between them in public and political consciousness after the fact has socially constitutive power. Doctrine is but a sign, a string of words, however words used politically to justify or contest authoritative actions are potent tools for structuring perceptions and perhaps subsequent events. It is in law, where the edifice of knowledge structures and traditions of understanding are highly defined and valued, that this characteristic of doctrine is most pronounced. In law doctrine exhibits a regular palpable presence.

Doctrine is defined as a principle or body of principles presented for acceptance or belief. In legal discourse, it is described as a, rule or principle of law, especially when established by precedent. Its archaic use was as something taught; a teaching in middle English, from the old French and Latin "doctrina," a progeny of doctor, or teacher, and docere, to teach. The root "Dek," to take or accept is causative, the construct facilitates agency. It is a term of authority, doctrines come from on high, are designed to fill listeners

with understanding, and serve to drive behavior, or at the very least, explain how a particular behavior or authoritative action makes sense.

In law, precedent's relationship to doctrine is reflexive. Precedent is itself a doctrine, simultaneously it is a practice central to all other effective legal doctrine. The specialized legal term closely mimics its more general meaning, "a convention or custom arising from long practice" (American Heritage, 1992). Black's Law Dictionary condenses precedent to a key phrase, "as furnishing an example or authority for an identical or similar case afterwards arising or a similar question of law." All doctrine rely on precedent to stretch them across time and space, to expand their influence over a range of official and unofficial actions, and to get into the consciousness of practitioners and subjects alike. The two are products of complex and interdependent practices within law.[1]

Rules, principles, and maxims are other constructs closely associated with doctrine. In jurisprudence they are used repeatedly and often interchangeably. Early European legal science for example, treating Justinian legal texts[2] as data, sought to distill the essence of Roman law, its fundamental principles which fall out with the application of scholastic analysis. Those principles may have represented a hybrid of natural and positive law, maxims of both nature and man. Jurisprudence has dealt with doctrine somewhat unproblematically if tangentially, by focusing on sources, forms, and the politics of law scholars have explored whether rules or principles reign, whether there is anything beyond positive forms and politics, and what, if any, the normative quality of law is. Throughout, doctrine plays an important role as a knowledge structure for making sense of law.

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[1] "It means that a principle of law actually presented to a court of authority for consideration and determination has, after due consideration , been declared to serve as a rule for future guidance in the same or analogous cases, but matters which merely lurk in the record and are not directly advanced or expressly decided are not precedents." (Empire Square Reality Co. v. Chase National Bank of City of New York, 43 N.Y.S. 2d 470, 483)

[2] 6th Century A.D. codification of Roman law.

C. Maxims and Principles of Legal Science

Rome presents an early recording of an ordered system of law, with its institutions, roles, and practices providing impetus for later European models.[3] The Justinian codification was the first notable effort to encapsulate and make orderly the codes, rulings, opinions of the then waning Empire. Roman law and order ideology, attributed to the codification, was a powerful contributor to the development of western social and political institutions and practices (Ullman, 1975: 53). European legal science was fueled by an examination of those ideological concepts within the minutia of the Justinian texts.

> The Roman law in the shape it received in Justinian's codification . . . embodied a great many governmental ideas and principles as they came to be evolved in late republican and especially in imperial times. . . what matters is not so much the intrinsic quality of this law, which certainly was very high, but the influence which it exercised on the evolution of governmental practice and theory. (Ullman, 1975: 53)

> These features [missionaries, Gaul, superiority to local, latin - Bible] together with the high degree of jurisitc expertise, elan and elegance that characterized Roman law, make understandable why it exercised an irresistible influence in early medieval Europe. At least in ideological respects a great deal of Europe was shaped by the Roman law in its Justinian codification. (Ullman, 1975: 54)

Government and legal institutions in western Europe were less dependent on the particularities of Roman codes and legal customs, but rather relied on interpretations of the "jurisprudential axioms and principles enshrined in it" (Ullman, 1975: 53). Axioms and principles were derived from legal texts written in Latin, the language of the Church, the language of authority. In some ways this early specialization instituted the elite and exclusive nature of knowledge experts in law. Experts were ideological, and their axioms

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[3] Roman law is the model for later European continental or civil law. It is Roman civil law where most energy was applied by jurists and commentators of the day, with common law being just that, the law of the everyday, the mundane interactions between individuals of lower political and social status. The positive enactment's of Roman political institutions however attracted significant intellectual attention, while the common did not. However, in their modern manifestations axioms and principles, originally products of scholarship around Roman Civil Law, would transcend the divisions between civil and common law traditions. See Blackstone's argument (Blackstone, 1809: 19) with the premise that sustained the secondary status of common law to the learned men of his time.

conveyed law and order ideology above all others. Concerns for justice and fair procedure, and about the relationships amongst citizens and between citizen and state, were also operative within that general ideological framework.[4]

The treatment of doctrine as data is traced to early European legal science and its purpose to "give structure and coherence to the accumulating mass of legal norms, thus helping to carve new legal systems out of the older legal orders which previously had been almost wholly diffused in social custom and in political and religious institutions" (Berman, 1983: 120). Early European jurists, studying at universities in Bologna and Paris in the 11th Century, scholastically examined the Justinian texts, i.e. the books of Roman Codes, Novels, Institutes, and Digests. They did this despite the fact that most law at that time existed in social and religious practices quite distinct from the edicts of some long dead Romans.

> The law that was first taught and studied systematically in the West was not the prevailing law; it was the law contained in an ancient manuscript which had come to light in an Italian library toward the end of the eleventh century. (Berman, 1983: 122)

The Digest stands out as the most important manifestation of the axioms of Roman law. The Digest, "was a collection made up of fragments, snippets and excerpts of varying length from the statements of the jurists" (Ullman, 1975: 55). While much of this material was quite specific, dealing with questions of private law, the day to day interactions and transactions between individuals, there were portions concerning criminal law, constitutional law, and "other branches of law governing the Roman citizen" (Berman, 1983: 128). What was most important to the legal scientists were the general portions of the Digest. These sections covered, "general principles, such as the definition of the law, its divisions and sub-divisions, the law creative power of public organs . . .

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[4] Of course this is a simplified model. The Romans were detail oriented, and the general axioms and attendant ideologies tended to reach fairly low levels of abstraction.

and the enforcement of the law, procedural maxims, responsibility, and so on" (Ullman, 1975: 56).

Interestingly the Romans spent considerable effort on specifics, Berman called them "problem solvers;" articulating an organized treatise of legal principles and practice seemed left to the end of empire. Yet they were concerned with consistent law practice and record keeping, "they worked case by case, with patience and acumen and profound respect for inherited tradition." The Digest in that sense was an anomaly, where synthesis of maxims and principles was attempted after centuries of imperial and republican legal practices (Berman, 1983: 129). The knowledge structures of principles and axioms set the parameters for these traditions, establishing a role which doctrine would soon partake filling.

European legal science had its data, and rigorous scholarship was applied to determine the truth, the "embodiment of reason" within, "they took Justinians law not primarily as the law applicable in Byzantium in 534 A.D., but as the law applicable at all times and in all places" (Berman, 1983: 122). It was the legal scientist however who gave voice to the Roman principles, performing the scholastic interpretation constrained by life in an 11th century university

> . .. it was they [European jurists] who first drew the conceptual implications - who made a theory of contract law out of particular types of Roman contracts, who defined the right of possession, who elaborated doctrines of justification for the use of force, and who, in general, systematized the older texts on the basis of broad principles and concepts. (Berman, 1983: 129)

Their efforts to uncover Roman law's ideological edifice had profound effects on the shape of European institutions and thought to follow, as many of these jurists and their students went on to occupy places of importance in developing western law and government.

Legal science at Bologna and Paris, and in other European universities, marked a coming out for law and legal study. The influences of interpreted Roman law would be felt throughout western Europe as legal scholars and practitioners were socially and politically

ascendant. Maitland labeled the twelfth century as "the most legal, and that, in no other age, since the classical days of Roman law, has so large a part of the sum total of intellectual endeavor been devoted to jurisprudence" (Pollock and Maitland, 1899: 111). "Through the process of dialectical analysis the medieval lawyers were able systematize legal thinking, to state the basic ideas with clarity, to develop the logical consequences of legal principles, to reconcile apparent contradictions, to define, classify, distinguish, to make interconnections manifest and to eliminate irrelevancies - in short, to subject legal thinking to perhaps the most intensive logical analysis it has ever known" (Cairns, 1949: 164).

Doctrine, in this analysis, is the product of the early legal scientists, they considered it a discovery, either interpretively gleaned from the specific aspects of the Justinian texts or from the expressed principles and axioms. Given their proclivity for sticking to individual cases, specific statutes or codes, and singular issues, the Romans left the theorizing and lexical structuring to those that followed. Perhaps due to the need to persuade in the scholarship of Bolgna and Paris legal science made doctrine an authoritative thing unto itself, given title and name, given status in the politics of interpretation. The Roman scholars and jurists, likely convinced of the ideological concepts undergirding their world, may not have needed doctrine to be so self consciously proffered. Nevertheless, whether axiom or doctrine, they are knowledge structures for conceptualizing law and shaping its practices.

D. Bacon and Blackstone

The efforts in European universities were the beginning of a resurgence and further development of scientific inquiry in the West.[5] Yet it would be several hundred years before this work would take on its modern manifestation, in the work of rational legal

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[5] The Moors are widely held to have continued the tradition of the Greeks, and Romans to a degree, with respect to Math, Geometry, Algebra, and their applied pursuits such as Architecture.

scholars,[6] perhaps most notably Bacon. Reason, rationality and logic are central elements in this scholarship, flowing out the Enlightenment's propositions that by applying structured empirical analysis and induction Man could conceive of the world accurately, free of superstition of the preceding era, yet tied together by totalizing notions of scientific method and inquiry. Doctrinal legal science is an extension of the Enlightenment project.

Rational inquiry and scholarly practices were foremost in legal science of the 17th, 18th, and 19th centuries, "and no fundamental distinction was drawn between the exposition of basic principles of positive law, and the study of natural reason and justice" (Simmonds, 1984: 19). Maxims and principles were the backbone of law in this model, doctrine functioned as both a synonym for them as well as a subset of them. Maxims and principles roughly correspond to the normative or ideological foundations upon which the specifics of common and statutory law systems[7] relied. For example, justice was considered a key principle, as a doctrine embodied in the mass of case law however it would be very difficult to find a specific referent or textual source. In this sense doctrine is a normative abstraction. In its other role, doctrine was also more specifically rules of practice for lawyers and judges which help structure particular actions and interpretations. A contemporary of Bacon organized these two levels of doctrine under the rubric of primary and secondary principles, perhaps foreshadowing contemporary discussions of primary and secondary rules in jurisprudence (Hart, 1961; Dworkin, 1985). John Dodderidge, another legal scholar and commentator, "distinguished between 'primary principles' which he identified with maxims, and 'secondary principles,' which he identified with rules" (Coquillette, 1992). Primary rules embody the ideology of a legal system, whether that be fairness or justice or equity, secondary rules manifest those primary principles in specific dictates, or so the theory suggests.

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[6] See discussion and the works cited in by Simmonds (Simmonds, 1984) as prototypical of rational legal science.

[7] The two systems and their histories is a project unto itself, for purposes here it is suggested that the knowledge structure doctrine plays a similar role in each, though to different degrees undoubtedly.

Thus doctrinal legal science reduced law to a dual system. In the background, but certainly not insignificant, were the fundamental principles and/or maxims of western law, growing out of social norms and customs, Christian morality, and Roman law and order ideology. In the foreground existed the accumulated mass of cases and codes, and the rules and/or doctrines that help make them meaningful. Doctrine, essentially codified by the legal scientists, join the two parts deductively. With the advent of legal positivism in the 19th century this proposition became more difficult, since the existence of principles and maxims became predicated on their objective expression (i.e. positing), not their logical deduction. However, doctrine did not seem to wither along with legal science, it remained as a signifier for a set of practices that judges and lawyers applied in the disposition and organizing of cases, whether inspired by constitutional, common law, or statutory forces.

Nearly two centuries later Blackstone's Commentaries (Blackstone, 1809) would have a profound impact on the then developing legal consciousness and practices in colonial America, serving the role of the Justinian texts for the early American legal scholars and jurists. Blackstone's Commentaries, the "codification" of English common law in the 18th century, attempted to "reduce to short and rational form the complex legal institutions of an entire society" (Boorstin, 1941: 3). Such an effort needed constructs to make sense of the multitude of practices and forms comprising the English legal system. Arising out of the development of rational science and its adherence to notions of right reason, Blackstone attached considerable importance to the maxims and principles of the common law he was attempting to sort out. In Blackstone's work doctrine took on its modern form as a specific knowledge structure corresponding to an implicit rule or practice in the disposition of legal cases. Principles were of greater abstraction and significance to Blackstone, but maxims provided a connection between principles and more specific rules, essentially maxims linked reason and doctrine.

> Since he was interested in the "elements and first principles" which were the components of a general map of the law, he could provide merely a general discussion of the nicety of creating a contingent remainder; then the student "will in

> some measure see the general reasons, upon which this nicety is founded. It were endless to attempt to enter upon the particular subtleties and refinements, into which this doctrine, by the variety of cases which have occurred in the course of many centuries, has been spun out and subdivided: neither are they consonant to the design of these elementary disquisitions." (Boorstin, 1941: 21)

It appears that Blackstone was objectively staying away from specific rules and/or doctrines and their applications in lieu of the greater project of theorizing about the common law and its "first principles." However the need to connect principles with practice forced him to discuss maxims, operating at a somewhat lower level of abstraction, yet generally above the day to day acts of judges and lawyers.

Blackstone's use of maxim is distinct from, yet dependent on, higher level first principles. Maxims, "summed up the proverbial wisdom of the past, and commended it to the future" (Boorstin, 1941: 114). Maxims were generally bridges between rules and principles, though at times maxims were conflated with rules, symbolizing the "broad guidelines which could be considered to underlie and direct loosely individual decisions" (Cotterrell, 1989: 24). Doctrine comes into play here, while Blackstone does not appear to have expressly dealt with it analytically, he uses maxims and rules in a manner that is very similar to contemporary uses of doctrine, as word phrases describing rules or practices. This conflation was not problematic for Blackstone, "the identification of maxim and law did not prevent Blackstone form giving a maxim as the reason for a legal rule" (Boorstin, 1941: 115). Rules were given Latin names, e.g. "autrefoits acquit (formal acquittal)," and were associated with universal maxims, e.g. "that no man is to be brought into jeopardy of his life more than once for the same offence" (Boorstin, 1941: 115). This might today be known as the double jeopardy doctrine, covering both rule and the maxim, functioning as a knowledge structure for legal practice by exposing a history of corresponding decisions and legal concepts. Boorstin essentially posited as much, suggesting that Blackstone often used maxims as a restatement of a rule of law, but "in a form which made it more easily remembered or which endowed it with a solemn Latinity" (Boorstin: 117). However, this transition of rule to maxim was not a mere translation from one form to another, it was a

transmogrification implying greater significance for the associated practices, making them more authoritative, more significant.

E. Doctrine in Modern Jurisprudence

1. Common Law

The common law tradition dominates the American legal system.[8] While both federal and state constitutions made specific provisions for law making and judiciaries, much of the practice of law was, and still is, defined by the long standing practices and concepts of common law. Correspondingly, much legal activity in the first century of the American experiment was private, i.e. pertaining to individuals and their interactions and transactions, while public law, that concerning the structure of state, and the relationship between state and individual, was of smaller scope. This orientation, and scholarly attention to it, would change considerably in Americas second century, the following discussion will attempt to survey jurisprudential thought around doctrine during this period of flux. Specifically, it will be a treatment of legal philosophy's major focus, the clarification or analysis of, the "ideas or structures of reasoning implicated in, presupposed by or developed through legal doctrine, or which constitute the environment of thought and belief in terms of which the legal processes are justified and explained" (Cotterrell, 1989: 2).

Historical jurisprudence is the study of common law systems. Liberalism and positivism shook common law's grip somewhat with notions such as the separation of public and private, with the neutral state and attendant legal apparati overseeing an otherwise unencumbered marketplace, and that judicial determination of legal realities through the application of rules and reason should be rational and interest free (Horowitz, 1977:7-12). In contrast, the common law implied a direct connection between the

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[8] That system is a conglomeration of state and federal systems, the prior was most significant in the first American century, it was not until after the Civil War that federal roles increased considerably.

community (i.e. the Volk) and the law, and judges' application of reason was an effort to be true to the established legal principles, maxims, and rules of that community (Savigny, 1831). Positivism in many areas of scientific and social inquiry was becoming the dominant epistemology. Positivism required that all law be posited from some legitimate authority distinct from social or moral interests, and that there were no abstract principles laying beyond, or behind, these positive constructions.

Where Blackstone's exposition of the common law treated the proliferation of statutory law as complimentary, yet peripheral, to the centrally important common law, Savigny, the Prussian jurist of the 19th century, integrated the two. As positivism might have dismissed Blackstone for his search for first principles of law, Savigny in a sense saved common law from the positivist ax. For Savigny, statutory or legislative law complemented that which resides in the doctrines and practices of common law, "its [legislative] task. . .is that of putting settled law into systematic form and clarifying law in transitional phases where new legal principles reflecting the developing common consciousness are emerging but not yet crystallized" (Savigny, 1831: 152-3). Savigny's incorporation of legislation into a model of the common law corresponded with the efforts of codification in America.

> Savigny's writings had considerable influence on legal scholarship in Britain and America in the nineteenth century, especially since the specter of codification - the symbol of rational legislative lawmaking dominating over judicial law finding - arose to challenge common law thought in both countries. Because he offers a more explicit theory of cultural development than did the common lawyers, he supplies a conception of legal development largely lacking in common law thought. (Cotterrell, 1989: 41)

Early in the 19th century most authoritative texts of law were relatively small and unstructured collections of cases and opinions, and handbooks explaining very specific common law forms of action (Horowitz, 1977: 12-13). The generally ambitious and overarching treatises modeled by Blackstone would have to wait until these were replaced by formalisms' conceptual categorizations and digests. Doctrine in this tradition tied

together these conceptualizations by shaping how cases were presented, interpreted and perhaps ultimately decided.

Criticisms of the common law method focused on the un-principled manner in which material was organized, and that there was "no scientific basis" in the collection or organization then offered in treatises (Horowitz, 1977: 12). Formalism was the movement to provide a scientific basis, and its conceptualizations were constructions "from which one could logically deduce virtually all legal rules and doctrines" (Horowitz, 1977: 129). Positivism in legal thought runs concurrently with the development of formalism. Flowing from the work Bentham and Austin law was considered exclusively the domain of the sovereign, or his agent judges, and to know law one need only observe the posited proclamations of sovereign institutions (i.e. executive, legislature, and courts).

Formalist conceptualizations were inherently tied to judges and a positivist law / society dichotomy, positing an autonomous realm of phenomena and behavior for the lawyer and jurist, separate from social forces such as politics.[9] Formalism in the late 19th century brought about comprehensive treatises and textbooks, as well as sowing the seeds for the intellectual tradition of modern professional law schools (Dane, 1823-29; Hilliard, 1859; Story,1805). Formalism has also been referred to as the doctrinal study of law, "or in cognate terms, black letter law," or as legal positivism taking, "legal rules and reports of cases as the universe" (Fitzpatrick, 1992: 3). Legal professionals were assigned the task of applying doctrine and rules in a dance of practices around unique fact sequences, producing a coherent, well reasoned law.

Doctrine played a similar role throughout, defining, or at least signifying, practices and rules in particular areas of law, regardless whether those areas originated, or were described, in a common or civil law tradition. Two nineteenth century English legal

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[9] Late 19th century legal formalism represented the crystallization of a legalistic mindset that had emerged in the 17th and 18th century English constitutional thought and was further elaborated in liberal political theory and post revolutionary American legal thought. It was marked by a series of basic dichotomies: between means and ends, procedure and substance, processes and consequences. In a world of conflicting ends, it aspired to create a system of processes and principles that could be shared even in the absence of agreed upon ends. (Horowitz, 1977: 16)

scholars place doctrine in both the common and formalist camps, signifying doctrine's versatility:

> A glance at the statute book is sufficient to show that, from the days of Edward I onwards, the stream of statutes has been continuous, and that very many of these statutes have had permanent effects on the development of legal doctrine. (Broom, 1875: 61)

> The doctrines of our law are enunciated in decided cases - now published in an authentic form - and in the treatises of learned writers . . . Cases which have been judicially recognized and thus have become precedents, must be conformed to, though sometimes, after the lapse of years, they are found to have been erroneously adjudged. (Holdsworth, 1925: 4-5)

Doctrine's most significant presence in contemporary legal practice is in those areas where statutes are indeterminate,[10] where constitutional provisions and clauses are being tested, and of course, in the common law.

2. Formalism and Positivism

Formalism, holding to liberal notions of a neutral state and autonomous law, suggested that law was distinct from social whims and fancies, and was better served by the functional formalization of doctrine and practice. Reasoning was a major pillar in this proposition, it was the means by which rules and facts were combined and perhaps produced. Judges' reasoning was not open ended nor decontextualized, but rather their domain of actions was constrained within a range of acceptability or legitimacy:

> The late-nineteenth-century effort to integrate legal doctrine was accompanied by an equally important attempt to create a self-contained system of legal reasoning that would be immune to the charge that it was simply political. . . It aspired to import into the processes of legal reasoning the qualities of certainty and logical inexorability. Deduction from general principles and analogies among cases and doctrines were often undertaken with a self confidence that later generations. . . could only mistakenly regard as willful and duplicitous. (Horowitz, 1977: 16)

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[10] Interpretations of statutes may be a completely indeterminate act, but consensus suggests that there are contexts and traditions of interpretation that constrain that indeterminacy, perhaps constructing a legitimate domain of interpretation , beyond which jurists risk irrelevancy.

Doctrine in the formalist case method was produced and reinforced by the relationships between the legal academy and profession, and was used to structure how legal practitioners know and express law. It was perhaps the preeminent structure for the formalist edifice, "the Formalist hero is the judge or treatise-writer who best clarifies doctrinal categories" (Gordon, 1984: 67). These categories and subsequent procedures and rules made up the formal legal world, a world changing due to the increasing role of legislation, and the belief that law and society, or at least policy[11] were more closely intertwined than formalism held.

The formalist / positivist project, while reaching its nadir in the late nineteenth century, would find a prominent twentieth century proponent in H.L.A. Hart and his theory of analytical jurisprudence. Generally following Austin's path, Hart suggested a more sociologically sensitive version of positivism, where law's creation was not merely by a singular sovereign, albeit with numerous agents, distinct from social influences. For Hart, law still came from authoritative sources associated with the sovereign institutions of state, but that social forces acted through those institutions to enact contextually sensitive law. However, with the ascendance of realism, positivists of this school would be far outnumbered. Paradoxically positive formalism has continued to survive in American legal education, especially in the sense of knowing what law is by legal students and professionals. Juxtaposed with this belief is a realist understanding that the application of that law, however dependent on formalism, is a realist endeavor, highly dependent on sociological and behavioral factors.

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[11] Early Progressives, in law and other realms, began to view policy as the sovereign arm which took social needs into account and articulated them officially, if transmogrified. This was at odds with formal distinctions between law - state- society, and the all powerful rule / value dichotomy so powerful in liberalism.

3. Realism

Realist or progressive scholars and jurists began to question some of the concepts undergirding the formalist effort, notably the proposition that law and society were distinct, and that doctrine was the epitome of reason and rationality within the traditions of law. Realists suggested that to know what law really was one needed to observe and map its real functions, not its proffered conceptualizations, rules, or doctrines. In fact it was these very constructs that obfuscated a clear view of laws social identify and qualities. Specifically, the roles of legal professionals, and the politics and ideologies which shape their development and subsequent behavior, was decidedly non neutral, tied to social interests and forces, denying neat and clean dichotomies. O.W. Holmes, writing before the realist coming out, suggested their future, "for the rational study of the law the black-letter man may be the man of the present, but the man of the future is the man of statistics and the master of economics" (Holmes, 1897: 187). For Holmes social scientific tools would be the wares of law's investigators, no longer would rhetoricians and logicians hold sway.

In Holmes' Path of Law his famous "bad man" passage suggested that if we really want to know law, we should not be looking to the rarefied words of elite practitioners who attempt to sum up the principles and maxims of legal life. Rather, we should observe, utilizing the methods of social science then proliferating, the actions of our bad man, to determine what connection exists between his actions and his conception of law, for it is the bad man who tests the edges of legitimacy and law. The bad man lives in the real world, exhibits real behavior, and makes real determinations as to his course of action. Only by observing that man, a man tempted to breach the law, can scholars and jurists know the law, principles and doctrine matter little to the bad man, only expected results played out in laws social world. Realism denied the very existence of such transcendental formalisms and looked to mere men to understand law.

Felix Cohen's Transcendental Nonsense (Cohen, 1935) has been suggested as one of the most significant early statements of the realist project, though he referred to the anti-formalist effort as functionalism. Cohen used the term functionalism literally, rather than exploring law's alleged, or proposed, or expected, phenomena and characteristics, he suggested that scholars reduce that which they study into terms of actual experience, into the functions of individuals and institutions. At its most basic Cohen posited that, "functionalism represents an assault upon all dogmas and devices that cannot be translated into terms of actual experience" (Coleman, 1994: 822). Law is full of such devices, "concepts that cannot be defined in terms of experience, and from which all sorts of empirical decisions are supposed to flow." Doctrine is likely preeminent amongst those concepts. Cohen, in a death knell for formalism, speaks more of "legal concepts" and "principles" than doctrine, but considering doctrine's obvious presence and importance in the formalist model it is unlikely he intended to leave it out. In fact, the more he wrote of what functionalism was replacing, the more obvious doctrine becomes.

> The age of classical jurists is over, I think. . . There will of course be imitators and followers of the classical jurists. .. But I think that the really creative legal thinkers of the future will not devote themselves. . . to the taxonomy of legal concepts and to the systematic explication of principles of justice and reason, buttressed by correct cases. (Coleman, 1994: 221)

Doctrine is implicated fully, the taxonomy of concepts and principles can mean little without doctrine, it is the primary structuring device, providing for the application of reason and the production of correct cases.

Realism, cognizant of doctrine's place within the formalist model, claimed it to be "one component of a general, if not always well coordinated, policymaking enterprise" (Gordon, 1984: 67). Horowitz summed the realist take:

> From the beginning of the twentieth century, Classical Legal Thought found itself confronted by an increasingly powerful critique of its basic premises. In one legal field after another, Progressive thinkers challenged both the political and moral

> assumptions of the old order and the structures of legal doctrine and legal reasoning that were designed to represent those assumptions as neutral, natural, and necessary. (Horowitz, 1977: 169)

Doctrine was still clearly significant, but could no longer be the scientific and objectively reasoned product of formalism, it became fluid, shaped by judges subject to social and individual forces. Legal behavior, and the structures used to describe or authorize that behavior, was no longer considered that of objective professional practices like doctrinal reasoning. Doctrine is used in realist scholarship that explores terms like "rule," "dispute," and "precept" in case disposition, it is within these discussions that doctrine's fluid identity is exposed.

Karl Llewellyn's Bramble Bush is recognized as one of realism's sacred texts, if that is possible in a pursuit that denied the very notion of sacredness, and perhaps texts as well. The place of doctrine in Llewellyn's work must be largely interpreted since he uses it as a referent for something else that he is interested in, not as an object of his analytical attention itself. The most open discussion of doctrine uncovered was in Llewellyn's response to Pound's criticisms of realism. In it Llewellyn suggested some essential realist positions, most notably the, "distrust of traditional legal rules and concepts insofar as they purport to describe what either courts or people are actually doing," and distrust of the idea that rules as expressed in the form of legal doctrine, "are the heavily operative factors in producing court decisions" (Llewellyn, 1931: 55-7). This may be the ultimate position of the realists on doctrine, especially as it was construed by formalism, however we must dig a little deeper as Llewellyn, and the other realists, tended not to address doctrine so openly.

Terms like "rule" and "dispute" coexist with "doctrine" in Llewellyn's discussion of the art of understanding cases. This begins with Llewellyn's exposition on "What lies behind the case," and specifically the place of doctrine in the constitution of a case in the appellate system. For Llewellyn the opinion is the case, "it is the justification, prepared by one judge whose name it bears, and concurred in by the court, for the courts deciding the case as they have done" (Llewellyn, 1930: 37). Opinions and the decisions they support

are abstracted, in the formalist tradition especially, to a set of applicable rules and relevant facts which frame the dispute before the court. In the Bramble Bush, dispute seems to have two related meanings, first representing the basic disagreement between social actors, and second, the legal case presenting a profile of facts, rules, and doctrine:

> Everything, everything, everything, big or small, a judge may say in an opinion, is to be read with primary reference to the particular dispute, the particular question before him. (Llewellyn, 1930: 43)

Defining disputes is a central practice for appellate judges, rules and facts consume that process. Setting facts aside, admitting they are clearly dependent on doctrines of inclusion or exclusion, I suggest that rules are the site of law's most significant doctrinal activity. Rules, according to Llewellyn include black letter law, as well as the more interpretively dependent rules of practice to categorize and process cases, to frame disputes so they can be decided against the backdrop of established or developing rules and doctrines. Do rules indicate the meaning of a case though muses Llewellyn? In formalist models yes, they situate the case and enable its disposition. In realist models this is short sighted, meaning for cases, and ultimately rules brought to bear therein, is determined "only as we observed what difference these rules and these decisions made to people" (Llewellyn, 1930: 39). True to the developing realist ideology if you wanted to understand cases, and by association law, one needed to go out into the real world and measure impact, chart behavior, and ascertain beliefs toward the legal system and its phenomena.

For other scholars of this evolving effort (e.g. Frank 1949; Levi 1949) rules were crucial for understanding the distinction between formalism's legal orthodoxy and the effort they embodied. Rules encompassed a wide range of constructs for Frank, he considered rules to be the product of both legislation and judging, the prior objectively created by willful action, the latter either already present in our Anglo-American common law tradition or produced by the transformation of an already existing rule. Formalism might have suggested that heretofore unenunciated rules merely needed discovery by rational judges,

realists like Frank were quite skeptical of such a proposition, and were interested in how new rules were developed and applied in the day to day operations of courts.[12] It is at this edge of rule development where Frank's critical energy persists today.

For Levi, rules and facts are more intertwined than Llewellyn or Frank suggested in their assessments of legal practice. Rules are quite adaptable for Levi, in his work on legal reasoning he suggested that rules are molded and changed to suit variable fact patterns and social contexts. While the nomenclature of rules may remain constant, the actions signified by the same words is subject to fairly constant re-articulation.[13]

Dean Roscoe Pound's sociological jurisprudence[14] perhaps tackled doctrine most forthrightly. In Pound's "broad view," law is more than a system of rules, "but a doctrinal system in movement" (Cotterrell,1989: 153). Pound used the term precepts to expand on the idea of positive rules, "precepts attaching a definite detailed legal consequence to a definite detailed state of facts or situation of fact" (Pound, 1941: 256). Precepts were inclusive of principles, "the authoritative starting points for legal reasoning," as well as conceptions, "authoritatively defined categories," and standards, "defined measures of conduct, to be applied according to the circumstances of each case" (Pound, 1941: 256-7). Contrasting his work most notably with that of Hart's analytical jurisprudence (Cotterrell, 1989: 156) Pound put forth an organicist, or sociological, view of law:

> (1) that law contains within itself the doctrinal resources for its own development in the form of values and principles capable of giving content and shape to evolving law; (ii) law has a natural momentum for change, an inbuilt tendency to develop;

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[12] It should be noted the Frank is known as a fact skeptic. This is taken to mean that he is critical of doctrines and practices which are used to construct, extract, situate the relevant facts for a legal dispute.

[13] See Levi's discussion of the so-called inherently dangerous rule in product liability law. In it he shows the development of a rule which begins quite closely aligned with the Latin expression caveat emptor, or the buyer beware, with nearly total absolving of a retailers liability. Gradually this has changed to increase a retailers responsibility for damages incurred after the purchase of a particular product

[14] Pound claimed not to be a realist, largely I think because of he still felt that doctrine and other authoritative forms were of value to the legal enterprise, and not necessarily bankrupt by their association with social and political forces under the guise of objectivity and neutrality. Nonetheless, legal scholarship has included Dean Pound amongst that catch all called realism.

> (iii) legal development is a matter of orderly adjustment within the legal system to the changing patterns of human demands being registered within it; and (iv) the task of the jurist is to keep these orderly processes of legal development working freely. (Cotterrell, 1989: 156)

This view also suggested that the reason doctrine has come under such fire, by realists especially, is that, "the essence of the common law method has not been followed" (Cotterrell, 1989: 158). The formalist tradition, also associated with the term mechanical jurisprudence, required that legal concepts like doctrine stand alone, on their merits and logical structures to manage court practices. Doctrine was cut adrift from social interests and context in the pursuit of mechanical application. Interestingly, it was not doctrine per se that sociological jurisprudence was railing against, but rather the context free nature of doctrine's use.

Rules of practice, categorization, and ultimately reasoning then are the working tools of judges, calling some of these rules doctrines is not a great stretch, and in fact they do. Llewellyn and Frank used doctrine to refer to practices like precedent and stare decisis, and used rules to describe specific doctrines as this project suggests. The distinction can be flattened by stipulating that doctrines like compelling state interest exist as a subset of a general class of legal rules and practices. These rules may include broad notions like "precedent" or specific constructs like the "strict scrutiny balancing test." In this project, claims of religious free exercise violations represent the dispute, some might call this a doctrinal space, it is constituted by rules and doctrines which further shape judges', and other relevant legal actors, range of motion.[15] Compelling state interest is one of those doctrines, it represents an accumulated knowledge from previous cases and their facts, related constitutional clauses and realms, and suggests actions which judges may take to help them make sense, and ultimately decide disputes before them.

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[15] Rules make the game space, define how the game is to be played, and provide for completion and resolution.

4. Life After Realism

While realism is generally considered a retired movement in legal scholarship, that may have more to do with the fact that its prognosticators are largely gone, than the obliteration of their ideas. Realist inspired efforts have been incorporated in a range of scholarly pursuits, all with the common theme of investigating the interface and relationship between law and society, denying the positivist or formal dichotomy between them. In addition to neo-realist work, there has been scholarship which incorporates the realist critique of rule bound jurisprudence, but rather than attempting to understand law only through a sociological or behavioral lens, rearticulates common law-like concerns for communal principles beyond positive rules. And, to fill the space between these pursuits, there is renewed attention to the institutions and their practices shaping law, and hybrid constitutive work suggesting that forms of law become meaningful, become real or palpable, through social practice. The social reality of law itself is related to the behavior of judges, lawyers, and citizens as well as the legal forms and structures most associated with traditional orthodox approaches to law, like constitutional texts, and perhaps even appellate court doctrine.

The following does not purport to exhaustively track all of these, rather it attempts to build a bridge between the realist attack on doctrine and formalism and contemporary examinations of doctrine as it structures judicial actions. In this vein, it explores the work of Ronald Dworkin (Dworkin, 1977; 1982), and specifically his theory of principles, especially as it contrasts with formalism and positivism of the modern variety described by H.L.A. Hart. Dworkin's work represents an effort to come to terms with what he considers their major failing, specifically that judges exercising discretion are acting as legislators in the creation of positive law. Dworkin counters with his exposition of discretion as part of law, not legislating, and it is a valid notion in law because it stems from the essential principles that undergird legal rules and procedures. This is followed

with a concluding discussion of the post realist critical effort in legal scholarship, its basic activity brings doctrine front and center.

Formalism rested on the idea that law is a collection of rules posited by legitimate political authority, whether that be the executive, legislature, or courts. Where rules were found lacking, that is, an appropriate rule could not be made to fit the dispute before a court, then judges would solve these "hard cases" by exercising discretion. Their discretion was considered a legitimate positing of law, derived from whatever sovereign sources that judge or court found appropriate. Dworkin disagrees, but his position differs from the dominant realist inspired view that discretion, as well as literally all decision making, is the result of non legal[16] forces, such as political ideology and interests. Both agree however that decision making was not exclusively a rule bound activity as the orthodox positivists said, but Dworkin parted with the Realists on just what was driving decision making. Much like the common law tradition and scholarship that formalism railed against, Dworkin argued that beyond the specific practices and rules of law were principles of law that structured how and when rules were invoked, and more importantly, provided a normative backbone within law.

> Dworkin's strategy is, therefore, to show that principles, which cannot be reduced to legal rules, are treated in practice by courts as legal authorities which cannot be ignored; that they are essential (not optional or discretionary) element in reaching decisions in hard cases. Indeed, Dworkin seeks to argue that in all cases a structure of legal principles stands behind and informs the applicable rules. (Cotterrell, 1989: 169)

Rules and principles are distinct in Dworkin's model. Rules are specific codes of conduct, both procedural[17] and substantive, which satisfy some theory of recognition (e.g. Hart's) that positivism put forth to define the domain of rules. Principles are not so tight, and I suggest despite Dworkin's use of the term doctrine to refer to broad practices such as the

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[16] Meaning extra legal, from outside the realm of a legal apparatus, deriving from interests and/or psychological factors.

[17] Procedural rules which structure court function, for processing and resolving disputes.

doctrine of "judicial discretion" (Coleman, 1994: 400), or the doctrine of "political responsibility" (Coleman, 1994: 420) that principles and doctrine have some crossover. Perhaps doctrine could fit between rules and principles, providing Dworkin with a knowledge structure to transform principles into operative frameworks within which rules can be created, applied, and eventually altered or discarded.

Principles are standards to be observed, "not because it will advance or secure an economic, political, or social situation deemed desirable, but because it is a requirement of justice or fairness or some other dimension of morality" (Dworkin in Coleman, 1989: 389). Dworkin writes that principles have a dimension that rules do not, namely that of weight or importance. Whereas rules are fixed in their applicability and accountability, principles have sliding valuations depending upon the proposed application. Rules by definition cannot conflict, lest one rule be proven unusable or plain wrong, but principles, because of this weighting and sliding characteristic, can overlap and conflict (Coleman, 1989: 393). Doctrine has characteristics of both conditions, in free exercise cases selected for this project, principles and doctrines abound. Principles of religious liberty and neutrality toward conceptions of the "good life" are the conceptually abstract propositions behind judicial processing of such cases. While doctrines, or tests, or perhaps even implicit rules, exist to facilitate that processing. The compelling interests doctrine is one, others include the test as to whether a legitimate religious practice even exists, whether it was interfered with, and whether the allegedly interfering state policy represents the least restrictive means for achieving its necessarily legitimate end.[18] While these tests are not codified in any statute enabling judicial behavior, they are employed by judges as legitimate practices in deciding free exercise cases.

Principles are simply less "positive" for Dworkin, they "emerge, flourish and decline gradually through their recognition, elaboration and perhaps eventual discarding

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[18] The jurisprudence and practices of religious free exercise cases to be explored in succeeding chapter.

over time in the ongoing history of the legal system" (Cotterrell, 1989: 170). They undergird the legal system, whether that be private or Constitutional, and ground the rules that positivism recognizes, or those that realism either ignores as archaic referents for legal action or criticizes for their instrumental qualities. The interrelationship between rule and principle (and doctrine?) is powerful (Dworkin, 1982), and perhaps this has undermined the principle/ rule dichotomy one finds in Dworkin's earlier work (i.e. The Model of Rules). Resting on the assertion that all law is a matter of interpretation, principles for Dworkin, and by association doctrine, have to be present for rules to make sense.

While Dworkin may be instrumental to the study of law's forms and phenomena and their connection to constitutive social contexts, the Realist backdrop in scholarship is still dominant. For this reason, and the fact that neo-realist attention to doctrine is obvious, I conclude this survey with a critical approaches to doctrine.

Critical legal scholarship, or Critical Legal Studies (CLS), tackles doctrine most forthrightly, problemitizing its indeterminacy and interpretive fluidity, and therefore by association, attacking the liberal edifice housing it (Barkan, 1987). Inspired by realism's rule skepticism and attention to the law and society nexus, and Marxism's claims of legal instrumentality and false consciousness (i.e. legal ideologies), critical scholars continued to explode the legal orthodoxy of liberalism. Critical scholarship though separated itself from each in important ways. While the underlying critique of liberalism and its legal forms ties CLS and realism indelibly, CLS moves to another level of relativity. CLS appropriated the intellectually popular notions of post-structural or post-modern social theory, which rest on deontological views of law and society. Society and its institutions are contingent, not natural, Realism stopped well short of this, claiming instead that a particular version of social institutions and practices was not "right" and needed to be improved through progressive law. This of course conflicted significantly with the judicial conservatism of the early 20th century. CLS differs from Marxism similarly, but appropriates from neo-

Marxism the idea of law's relative autonomy[19] which moved CLS further still from traditional realism.

Lest becoming too confusing, CLS essential characteristic is its opposition stance to liberalism and legal orthodoxy, its denial of the separation of law and society, and later its suspicion of the idea of law's complete instrumentality at the hands of the purveyors of legal ideology and power:

> For CLS, critique must begin an proceed with the operation of law as ideology. This is not to trivialize the coercive functioning of much law, but to supplement and strengthen the radical critique. For CLS, the Rule of Law is a mask that lends to existing social structures the appearance of legitimacy and inevitability; it transforms the contingency of social history into a fixed set of structural arrangements and ideological commitments. . . By laying bare the rhetorical status of law, it becomes possible to subvert laws philosophical and political authority. In a world in which law plays such an important role and in which it is almost impossible to appreciate social life without utilizing, often implicitly, the framework of legal relations, the need to understand the historicity and ideology of the lawyer's way of thinking about and acting in the world is extremely important. (Hutchinson, 1989: 3)

CLS addresses doctrine through its associated attack on reason and reasoning. Reason is liberalism's key to applying law fairly, and Roberto Unger's treatise on liberal political thought captures its importance to the critical effort. In Liberalism reason provides a "technique of rule application" that is supposed to guarantee that "laws are applied uniformly" (Unger in Hutchinson, 1989: 20). Unger suggests that the technique of reason is in fact a "machine," one which provides for the analysis and categorization of specific data and contexts. Reason represents "the capacity to deduce conclusions from premises and the ability to choose efficient means to accepted ends" (Unger in Hutchinson, 1989: 21). I suggest that doctrine is data, constructed data to be sure, in the technical process of reasoning, it structures what reason can conceive of, and provides practices / options to conclude the disposition of cases. The distinction between law and society is maintained

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[19] See work (Hay, 1975; Thompson, 1975, Collins, 1982) which explores law defying strict instrumentality.

by asserting that reason is an intellectual process, a professional process, a technical process, one disconnected from the surrounding maelstrom of politics and interests.

CLS attacks reason, and therefore doctrine, by going after the separation and neutrality metaphors of liberalism. It was untenable to critical scholars that reason in law could be so neatly apolitical. Therefore they sought to expose the political or ideological elements within the practices and constructs that support the technique, doctrine is one of the most important of those. Ultimately CLS set about to show:

> Beneath the patina of legalistic jargon, law and judicial decision making are neither spirit nor separable from disputes about the kind of world we want to live in. Legal reasoning consists of an endless and contradictory process of making, refining, reworking, collapsing, and rejecting doctrinal categories and distinctions. Doctrinal patterns can never be objectively justified and consist of a haphazard cluster of ad hoc and fragile compromises. (Hutchinson, 1989: 4)

Critical scholars started to unpack reason in law, especially in those cases at the appellate level where the most significant questions of law are addressed.

Reason is an abstraction, doctrine however is the body being taken apart for signs of some internal logic, some transcendental order to structure reason. CLS said there was no preordained method of reasoning that could be replicated as in a physical experiment. All that mattered was how various doctrinal applications and interpretations were strung together in the present case, such that the reasoned product made enough sense to those that listen.[20] CLS pursued not merely the different interpretations, i.e. through so-called thick doctrinal analysis (e.g. Klare in Hutchinson, 1989) of doctrine, but sought explanation in the political contexts which gave rise to competing interpretations (Cotterrell, 1989: 211). This has not rendered doctrinal study obsolete in the same way that perhaps Realism, and certainly later judicial behavioral models in political science, might suggest. Doctrinal analysis and critique is significant not only for uncovering reason's indeterminacy but as a

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[20] This raises the issue of legitimacy of judicial reasoning and case opinions embodying it. Certainly judges are concerned about what other judges, especially at lower courts, will do in light of present decision. But, there is another level of legitimacy that scholars of more sociological studies of law are concerned with, (e.g. Scheppele, 1988), namely the constitutive and resonative power of doctrine in individuals and groups outside of jurists.

structure that has some wider social significance, that perhaps constitutes social relationships and actions around law.

> Doctrine and its development is taken very seriously [by CLS], but the motor of doctrinal development is not considered to lie in legal logic , or overarching values or traditions of the legal system (Pound, Dworkin), or mere judicial discretion as proposed by positivist analytical jurisprudence. The impetus for change in doctrine comes from outside the professional legal domain, especially in political struggle and the economic conditions, changes or crises of capitalist society. . . Part of CLS' objective is to reveal 'hidden motives that the judges themselves would treat as illegitimate if forced to confront them'; it 'requires the analysis of the coherence of judicial explanations of outcomes. . . But the goal is neither an alternative rationale nor a criticism of the outcome.' Instead it is to show how a judge's formal rationale of the decision (which presents itself as mere legal reasoning) obscures the real political significance of what is being decided. (Cotterrel, 1989: 212)

F. Conclusion

Doctrine has served a remarkably similar role through nearly a thousand years of western law, as a logic, as a site where contests of meaning can take place, and where judicial practices can rest reasoning and argument if need be. It is a nimble structure though, whether aligned with maxim or principle, or seemingly discarded at the base of the realist heap by critical scholars and jurists, it continues to breath life into what judges do and say, and in the ways law is made socially real. This chapter has tried to show that regardless the context and period, that the basic shape of that logic has been consistent, despite the vagaries of its output or product.

CHAPTER III

COMPELLING INTERESTS AND RELIGIOUS LIBERTY

A. Introduction

The following surveys religious free exercise jurisprudence to explore the development, presence, and application of compelling interest doctrine. In the tradition of constitutional doctrinal scholarship, the focus here is on the Supreme Court's treatment of religious free exercise claims. The legal and political thought which gave rise to our particular variant of a liberal treatment of religion provides theoretical context for the Court's subsequent constitutional discussion. The concept of compelling state interest is manifested in a judicial test balancing between the constitutional rights of individuals and state interests in the performance of its activities (e.g. public welfare, police powers). A city, state, or federal law claimed to interfere, either directly or incidentally, with certain fundamental rights may be judicially tested to determine whether its compelling interest prevails over those rights.

In the post Carolene judicial world,[1] compelling state interests extend to procreative behavior, where a state may intervene in women's prenatal choices, and define a range of options and actions available to those women (e.g. Roe v. Wade, 410 U.S. 113 (1973); Akron v. Center. for Reproductive. Health, 462 U.S. 416 (1983); Webster v. Reproductive Health Services, 492 U.S. 490) Federal and state governments have been compelled to prohibit trade in, and production of, child pornography, asserting its interests in protecting victims (e.g. New York v. Ferber, 458 U.S. 747 (1982)). When fundamental rights to liberty and equality[2] are abridged by government actions courts have

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[1] See U.S. v. Carolene Products Co., 304 U.S. 144 (1938) as the watershed opinion in the development judicial activity in areas of civil liberties and later in individual rights.

[2] In the post Carolene world of double standards (Brigham, 1984) appellate courts have paid special attention to rights considered fundamental to constitutional democratic America. Of course, this

held policies up to strict scrutiny, establishing whether the action's means were least restrictive of the rights and its ends represented a state, or social, compelling interest. Compelling interests have subsequently shown up in free press cases (e.g. Simon and Schuster, Inc. v. Members of NY State Crime Victims Board, 502 U.S. 105 (1991)), in reapportionment / reverse discrimination cases (e.g. Shaw v. Reno, 509 U.S. --- (1993)), in residency requirement / equal protection cases (e.g. Shapiro v. Thompson, San Antonio v. Rodriguez, 394 U.S. 618 (1969)) and most importantly speech rights cases[3] (e.g. West Virginia Board of Ed. v. Barnette, 319 U.S. 624 (1943)). Finally, compelling interests have an important role in free exercise law, displacing earlier formalist distinctions between beliefs and actions.

This chapter presents a historical survey of free exercise law within the American tradition of religious liberty, and specifically the evolution of the compelling interests doctrine therein. That history became more active in the middle of the 20th century, after the Carolene era shift in judicial focus.[4] Maybe bowing to realist criticisms of formal rule / fact constructs, judges began to interpret and incorporate interests more aggressively in keeping with then dominant balancing tests. This heightened explicit political considerations by judges as they constructed and weighed those interests over ever shifting doctrinal grounds. Reciprocally this may have enhanced political concern with judges, altering legal consciousness in and out of the legal profession.[5] Compelling interest

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may be another doctrinal area which ebbs and flows with the contingencies of the era.

[3] The preferred position of 1st Amendment rights began with free speech and political speech conflicts, where notions of strict scrutiny judicial analysis were employed. Such doctrines were gradually adopted for the treatment of other 1st Amendment areas like free exercise.

[4] An era is a label attached after the fact, it is used in practices of scholarship and story telling as a knowledge structure that helps the reader or recipient make sense of that story. Undoubtedly eras are simplifications and details are lost, traditionally the era that began around Carolene labels a period where the Supreme Court, and other federal appellate courts, were considered to have elevated their involvement with cases of civil and individual rights.

[5] The claim being made is that federal appellate courts (both Supreme and Circuit) have been much more in the political lens of American society since Carolene.

doctrine in its modern form emerged from this period.[6] It is interesting to note that the Court's effort to remove itself from one realm of politics, i.e. legislative involvement with economy and property, seems thwarted by its embrace of another political realm, that of civil and individual rights.

Coincident with the enhanced status of civil and individual rights in American jurisprudence was the rise of interest group and social issue politics.[7] Religion played a significant role in both, giving authority to rights assertions in the face of majoritarian policy and shaping the mobilization of a broad spectrum of interests around those sorts of assertions.[8] Religion has been elevated to new levels of influence in politics, whether that means the President embraces a conservative Christian-styled opposition to abortion or the local school committee requires the judicially permitted equal time for theories of Creation. The politics of law and religion bring more attention and energy to bear on courts and judges, despite their nominal neutrality and institutionally constrained relationships with politics. Notwithstanding such attention and political significance, the jurisprudence of religion may be undergoing another moment of change, moving from the era of rights (i.e. accomodationist) to one of deference (supposed value neutrality).[9] Compelling interests

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[6] Perhaps re-emergence is more accurate. Compelling interests have existed throughout American legal history, the particular variant discussed within however can be traced to Lockean ideas about the separation of law and religion and the weighing of competing interests in either realm.

[7] See work (Karst, 1993) which examines how interests become articulated and expressed politically.

[8] The supporting interests of the Religious Freedom Restoration Act were quite diverse, all coming together in the wake of the Supreme Courts treatment of compelling interests and religious practice in Smith ,110 S.Ct. 1595, (1990).

[9] As of this writing the compelling interest standard had been suspended by the Supreme Court . Originally, in the peyote case (i.e. Smith) the Supreme Court struck down the test as it has been established in (Sherbert v. Verner ,374 US. 398 (1963)). The succeeding Religious Freedom Restoration Act, Congress accomodationist effort to restore the compelling interest test, was struck down 1997 in City of Boerne v. Flores ,117 S.Ct. 2157, (1997).

have been an obvious target in that move, it is an endangered notion representing political values and judicial practice.[10]

B. Free Exercise History

1. Locke and Rousseau

The European invasion of what is now the Americas was spurred by the dynamic tensions of religion, politics, and economics in 17th, 18th, and 19th century Europe. North American colonization was in part the result of the European religious conflicts of the first half of that period, with English Protestants of one sect or another making the largest contribution. They fled direct persecution as well as the more indirect dimensions of prejudice and discrimination, they sought to not only freely practice their religions but to establish them as newly dominant. Colonial charters and later state constitutions facilitated these desires, representing a patchwork of religious toleration in colonial America.

Such a diversity of legal treatment of religion presented a challenge to federalist efforts to establish a national identity and charter.[11] Taking their theoretical leads from writers such as Locke and Rousseau, the federalists expressed an institutional desire for a tolerant neutral state separated from the factionalism of religion, yet dependent on the social organizing and interest channeling powers of religious institutions.

Locke's Second Treatise and Rousseau's The Social Contract presented Founders Madison and Jefferson with models for the relationship between state and religion. The state was to be tolerant of religion by separating religion from the public sphere. Locke may have been more insistent on this separation, perhaps most fearful of the influence religion had during the English Revolution. Privatization of religion was the solution, a

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[10] See (Aleinikoff, 1987) for a discussion of the political and judicial contexts in which the practice of balancing interests developed.

[11] Prominent Founders Madison and Jefferson represent those with most influence over the treatment of religion in the Constitutions Bill of Rights.

nominal removal of it entirely from the realm of state institutions and public life. Rights to religious freedom became the vehicle for this, encapsulating the privately held stock in religious practices, distinct from state dictates, but only to a degree. Practice has proven that dichotomies of public and private have been difficult to sustain, just as those of neutral and political.

Rousseu's civic republicanism seems to seek a less separate place for religion, or at least not being so confident about separation. Religion's social significance was such that it should have access to the processes of state as other interests or groups. Rousseau sought the "de institutionalization"[12] of religion at the same time as the creation of a civil religion, hence creating a substitute for religion in the public sphere. Both Locke and Rousseau recognized however that personal liberties like that of religious exercise must be limited, either by social contract or others interests in safety and property.[13]

Locke's A Letter Concerning Toleration (Locke, 1955: 17-23) was an explicit effort to set out principles in support of the tolerant liberal state and religion. Scholars have made direct connections between the Founding and these principles, specifically between Jefferson's Bill for Religious Freedom, and Madison's Memorial and Remonstrance as well as his later efforts on the Constitution. The overlap has been summarized in the following principles:

> 1) True belief is inspired by reason, not force; 2) Civil magistrates are not competent to judge matters of religious truth; 3) The domains of church and state are separate, and, therefore, a citizen's (religious) opinions should have no effect on his civil capacities; 4) Civil governments may punish sedition and other similar activities which represent the movement from opinion to overt activity against peace and good order. (Sandler, 1960: 110-116)

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[12] An early form of non-establishment, the removal of official political roles for religious organizations.

[13] For Rousseau the social contract implied a sacrifice of liberty for the security of the group and its protection from an anarchical domestic and international world. For Locke liberty is only legitimately constrained when the well being of others, or society generally, are damaged sufficiently. Of course these boundaries imply politics in the tests of balancing interests.

The final principle may represent an early articulation of the compelling interest principle, later to be a doctrine in free exercise cases. It certainly is consistent with both Locke and Rousseau's notions of legitimate restrictions, or abdications, of personal religious liberty. The liberal state requires such concessions in the maintenance of law and order. In the subsequent American experience much would be made of the distinction between belief and action, the prior utterly unassailed by the whims of Lockean Magistrates but the latter measured as all other social or political actions. Maintaining the distinction though proved difficult.

Locke speaks most directly to this issue. Specifically, where does toleration end in the liberal state? Michael Malbin's Religion and Politics (Malbin, 1978) historical examination of the First Amendment and Locke's Letter Concerning Toleration purports to show that the state brokered no exceptions for opinion or behavior which are contrary to legitimate interests of civil society, i.e. "had an adverse effect on the proper concerns of civil society" (Malbin, 1978: 32). Malbin summarized Locke's letter to mean that Magistrates, or the state, "must have discretion in determining what (e.g. either opinion or action) might have this kind of an adverse effect" (Malbin, 1978: 32). Given this, those that transgress civil society's law because of religious motivations must face state discipline, but it is up to the Creator to meet ultimate judgment. There are matters that lie beyond man and state, and mistakes may be made, but neither of these assertions alter the magistrate's supremacy in earthly matters of public policy.

2. Jefferson and Madison

The experiences of American states between the Articles of Confederation and the Constitution were formative of the federal apparati for religious freedom and toleration. Jefferson and Madison's efforts in the Virginia legislature and in the drafting of the federal Bill of Rights are examined here. This examination is against a backdrop of diverse legal conditions for religious exercise and establishment. There were states which guaranteed

free exercise, (e.g. New York Constitution of 1777, Article XXXVIII; North Carolina Constitution, 1776, Article XIX; Virginia Constitution of 1776, Section 16; Massachusetts Constitution of 1780, Part I, Article II; New Jersey Constitution of 1776, Article XVIII) yet some of those (e.g. Massachusetts') provided for the aid of an established church. In other states free exercise was limited to those who believed in God. Some states had religious oaths of office and religious tests for office holders (Schultz, 1994: 240). Virginia however is considered the state producing the seeds for later federal constitutional clauses on the relationship between church and state.

The Virginia constitution of 1776 was the product of George Mason and James Madison's words. Mason proposed the "fullest toleration" of religious expression, or "the duty which we owe to our Creator, and the manner discharging it," was driven by an individual's reason and opinion, not the dictates of state (Hunt in Malbin, 1978: 21). And, that "all men should enjoy the fullest toleration in the exercise of religion. . .unpunished and unrestrained by the magistrate, unless under the color of religion any man disturb the peace, happiness, or safety of society" (Malbin, 1978: 21). Madison apparently felt Mason's language of toleration and exceptions to religious free exercise unacceptable, and he proposed instead to ensure the "full and free exercise of religion" (Hunt quoting Madison in Malbin, 1978: 21). Madison proposed that rights to free exercise preexisted the state's prerogative to extend toleration, and the associated task of identifying legitimate religions and beliefs. And secondly, and most important to the future of compelling interest doctrine, that protection for religious belief be extended to related actions which may disturb legitimate social interests. Only those actions which "manifestly endangered" society presented exceptions to free exercise and could then be precluded said Madison. Malbin suggests that this was an early example of the clear and present danger test later seen in political speech cases, I suggest it also provided a foundation for compelling interests, certainly setting up the belief / action debate to follow. Nevertheless, the Virginia

convention adopted a compromise position, indicating their unease with Madison's level of free exercise.[14]

Between the ratification of the Virginia constitution and the addition of the Bill of Rights to the Federal Constitution in 1791 there were two other significant legislative actions that further refined the status of church / state relations. In 1784 the General Assessment Bill was proffered to provide for state support of the Episcopal church, establishing it as Virginias official church. Madison's opposition to that bill, his famous Memorial and Remonstrance of 1785,[15] espoused the unalienable nature of free exercise rights vis-a-vis the state. Perhaps cognizant of the Virginia legislature's lack of comfort with his high standard for exceptions to free exercise rights Madison sought to put forth a less aggressive standard. Madison formulated a distinction between opinions and actions, henceforth the belief / action distinction, and the right to hold opinions or beliefs freely was a natural right beyond the positive law of state. Actions however were protected only to the degree that they were associated with religious worship. There were still interpretive difficulties with this standard, but it was an obvious attempt to lessen the stringency with which states had to afford latitude to actions claimed to be religious (Malbin, 1978: 26).

Jefferson stepped to the fore in this debate as well, providing an alternative to the General Assessment Bill when Madison's Memorial and Remonstrance carried the day. Jefferson's Bill for the Establishment of Religious Freedom was passed in 1785 culminating the discussion opened by the General Assessment Bill the year before. Reiterating the notions of freedom of religious opinion present in previous documents Jefferson weighed in on the exception to free exercise troubling Mason and Madison, and the Virginia legislature to be sure. Distinct from Madison, who explicitly sought protection

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[14] That religion, or the duty we owe to our Creator, and the manner of discharging it, can be directed only by reason and conviction, not by force or violence, and therefore all men are equally entitled to the free exercise of religion, according to the dictates of conscience; and that it is the mutual duty of all to practice Christian forbearance, love, and charity toward each other (Hunt, 1784:167).

[15] For text of the address see James Madison, Writings, Hunt, ed., Notes of Speech Against Assessments For Support of Religioun, vol. 2 (Nov. 1784).

for actions construed as worship, in addition to the absolute protection for opinions, Jefferson concluded that all actions, even those of religious symbolism, were subject to the police powers of the state (Malbin, 1978: 28). The result was a sharp division between the protections for opinions and actions, a distinction present in free exercise jurisprudence until the 1960's, where it perhaps bowed to the elevation of protections for symbolic speech (i.e. actions) and the lack of confidence in dichotomies in law.

3. Reynolds to Braunfield: Beliefs, Actions, and Human Sacrifice

The First Amendment's religion clauses are generally considered to be the product of events and actors in Virginia between 1776 and 1791, as well as the philosophy and writings of Locke and Rousseau. The religious clause included the term "exercise," not opinion nor action, and if one had sought the intent of Mason, Madison, and Jefferson, there seems no unified answer would result. This indeterminacy would propel judicial treatment of beliefs and actions into the late 20th century. It should be noted that the First Amendment originally extended protection only from federal actions, this fact is largely responsible for the relative inactivity in free exercise law until Reynolds v. U.S., 98 U.S. 145 (1878). Most states though adopted constitutional and/or legislative provisions in line with the 1st Amendment of the Constitution. Scholarship on the Supreme Court[16] suggests that Court business was focused elsewhere, and that federal law and policy makers were unlikely to pass many statutes or regulations governing day to day life of the citizenry, that was still largely the states' domain, and would take the Civil War to alter significantly.

Reynolds is the first of the religious free exercise cases paid much attention in doctrinal scholarship. The case is noted for establishing the Jeffersonian model of belief / action distinction. The decision upheld a federal law prohibiting polygamy, the discussion

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[16] See scholarship (i.e. McCloskey, 1960) for general analysis and argument that the Court and the circuits were more concerned with the formation of the nation and its institutions and the federal / state relationship for the first 100 years of the American experience. After those issues had been settled (at least for that moment) issues regarding the place of industrialism in American society and politics and the role of civil and individual rights would be addressed

of the exceptions to the free exercise right is significant. Chief Justice Waite contended the First Amendment removed all opinion from Congressional reach, but that it "was left free to reach actions which were in violation of social duties or subversive of good order" (Reynolds, 1878: 164). Waite trotted out the human sacrifice example,[17] first in a parade of terribles that would result if free exercise really reached actions in the name of religion. This could not be, secular policy had to supersede minority religious claims where that policy was a valid means toward social cohesion and safety. Chief Justice Waite included a passage that is especially enlightening to this project. Waite writes that "to permit this (i.e. religious based exceptions for valid secular prohibitions of actions) would be to make the professed doctrines of religious belief superior to the law of the land, and in effect to permit every citizen to become a law unto himself" (Reynolds, 1878: 166-7). It captures an essential quality about this study as well as this area of law. Waite is describing a war of doctrines, one religious, i.e. Mormon polygamy, the other civil, i.e. public welfare through personal practice regulation. Compelling state interest doctrine, paradoxically, is the site of that war, providing rules of conduct and a playing field where the attendant politics may be expressed.

This doctrinal analysis depends on scholarly authorities in legal scholarship and political science to shape its basic form. Before heading down this path further it may be useful to question the nature of that form. The belief / action distinction is centrally present throughout this scholarship, however there is work that displaces the formalist doctrine of distinguishing between belief / action, or opinion / practice. In that work,[18] politics, moreso than doctrine, is most determinative or significant in understanding the free exercise

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[17] Human sacrifice is the classic example of the most terrible consequence of an absolute right to free exercise. It shows up in future free exercise cases as a rationale for limiting the exercise of behavior described otherwise as religious..

[18] See Epstien and Walker (1992: 79) quoting Brigham (1984: 77) who suggests that it was political, and or moral, considerations moreso than doctrine which explains the Courts decision. This project incorporates this, and posits that while indeed politics is determinative, that doctrinal forms in opinions play a role is in those politics. First we try to determine what is there in the forms.

litany. For example, Epstien and Walker chose to include a discussion of Pierce v. Society of Sisters, 268 U.S. 510 (1925) in their civil liberty case book directly following that of Reynolds. Pierce was also a free exercise case, where the Court struck down a mandatory public education standard in Oregon, one which effectively outlawed parochial or other non-secular schools. Not that this case is uninteresting or unimportant, but its profile in free exercise doctrinal scholarship is subdued, perhaps because it "virtually ignored the Reynolds belief / action distinction; instead, it rested its ruling on the view that the society, i.e. as opposed to the Mormons, engaged in a 'useful and meritorious' undertaking" (Epstien and Walker, 1992: 80). So, as this project embraces doctrine in the explanation of judicial events in a particular manner, I am ever cognizant that politics are behind these cases, as well as likely within doctrine itself.

The period between Reynolds and Sherbert in 1963 has several cases which are doctrinally significant.[19] Constitutional law scholarship also claims that a major shift occurred in this period, reorienting the Supreme Court and federal circuit courts and their activity domains. The Carolene footnote is considered the nexus,[20] with Justice Stone articulating the terms of that shift. Specifically, the Court was going to defer to political directives with respect to economy and property, while at the same time closely scrutinize those cases where civil or political rights were at risk.[21] This period is the subject of much scholarly attention, and an exhaustive overview of the fight over unenumerated liberties, like that of contract in Lochner. v. New York, 198 U.S. 45 (1905) and its doctrinal

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[19] After the preceding paragraph this has several meanings. Doctrinally instructive in both the way the cases unfolded and how that is portrayed in scholarship and opinions.

[20] That nexis is merely the swing point, with considerable attention paid to the first 35 years of the 20th century's law and politics. Likewise there is much attention to the 35 years, or more, after Carolene and its so-called active judiciary. See scholarship which discusses this in light of a perceived double standard in Supreme Court practices. See Brigham (1984) and Abraham (1982).

[21] The so-called double standard, see sources above, specifically Brigham.

companions,[22] is not proffered here.[23] It is important to recognize that a climate of deference to state interests was ascendant, despite Carolene's reorientation of the potential for judicial activism on civil rights.

> The Court recognized in 1938 that it would have to be less deferential in cases raising claims based on clear textual rights, abuse of the democratic system, and certain minority rights. To practice judicial activism in those areas, the Court could not allow protected rights to give way to any assertion of legislative powers. The Court's solution was to subject the means and purposes of legislative or administrative action to careful scrutiny: a legislative or administrative enactment impinging on the critical rights defined in Carolene Products could be sustained only where a compelling governmental purpose was furthered by the least restrictive available means. (Gottlieb, 1988: 11)

Given the new condition espoused after Carolene, deference to state interests in the regulatory / administrative scheme became the default condition, the growing area of civil rights law, and the later development of privacy (the classic modern unenumerated liberty) notwithstanding. Civil rights of speech, assembly, and voting were the first influenced by the post Carolene judicial paradigm which paid attention to textually fortified rights and raised political interests to new heights. The protections afforded civil rights took form in judicial opinions and practices corresponding to doctrines like strict scrutiny and compelling interests. The deferential default however seemed to weigh against them in those doctrinal decision matrices. So, while compelling interest was transformed from political speech cases to free exercise cases, the likelihood of superseding state interests remained low.

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[22] See Carter v. Carter Coal Co., 298 U.S. 238, 297 (1936) (invalidating the Bituminous Coal Conservation Act of 1935); A.L.A. Schechter Poultry Corp. v. United States, 295 U.S. 495, 550 (1935) (striking the National Industrial Recovery Act); Hammer v. Dagenhart, 247 U.S. 251, 276 (1918) (striking federal child labor laws); Chicago, Milwaukee & St. Paul Ry. Co. v. Minnesota, 134 U.S.418, 456-57 (1890) (requiring judicial inquiry into reasonableness of state railroad regulation). Allgeyer v. Louisiana, 165 U.S. 578, 589 (1897) (striking statute that regulated insurance agreements as violation of right to contract).

[23] For a more detailed discussion see: (Horowitz, 1977; Sunstein, 1987).

Cantwell v. Connecticut, 310 U.S. 296, (1940), the first of a series of cases involving free exercise claims by Jehovah Witnesses, incorporated the free exercise clause and reaffirmed the belief / action distinction.[24] Justice Roberts opened the doctrinal door a bit however in a Madisonian direction by suggesting that conduct was not entirely beyond the protective free exercise umbrella. Justice Roberts states that free exercise "embraces two concepts, freedom to believe and freedom to act." Though Justice Roberts goes on to say the first is absolute yet the second cannot be in lieu of the protection of society. The freedom to act must have appropriate definition to preserve the enforcement of that protection, thus leaving the interpretive door open a bit. Nevertheless, Roberts is credited with having moved free exercise away from a so-called strong belief / action distinction.

Cantwell was followed closely by Minersville School District v. Gobitis, 310 U.S. 586 (1940) and West Virginia Board of Education v. Barnette, 319 U.S. 624 (1943), as well as Prince v. Massachusetts, 321 U.S. 296 (1940), all of which further defined the appropriate standards for free exercise rights. In Gobitis, another Jehovah's Witness case, Justice Frankfurter wrote for the Court as it upheld a flag salute law, discharging the free exercise claim by asserting that the state interests in the policy were of such patriotic and political significance that they were clearly valid and triumphed. Justice Frankfurther explicitly adopted the language of interest balancing rather an belief / action. Barnette overturned Gobitis, though Justice Jackson's opinion rested on freedom of expression rather than free exercise in Barnette. Nevertheless Jackson's words are instructive for the other clauses of the First Amendment. Jackson wrote that First Amendment rights "are susceptible of restriction only to prevent grave and immediate danger to interests which the State may lawfully protect." And since abstaining from a flag salute was clearly an action, not simply opinion, the Court was moving further still from the belief / action distinction,

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[24] Cantwell is traditionally conceived of evaluating the nature of the policy at issue, and whether it was a valid secular policy, notwithstanding whether it produced an indirect burden on free exercise. The case is understood to have turned on Connecticut's attempt to identify religion for licensing, thus while the ends of the policy may have a legitimate public welfare rationale, the means to achieve them were unacceptable in its potentially disequitous treatment of religious belief.

incorporating both balancing and a sliding scale of protections for actions claimed religious. Finally Prince articulated the difficulty the Court was having in this area. While upholding the prohibition of distributing Jehovah religious materials by minors, Justice Rutledge's opinion indicated that free exercise claims were not beyond consideration, and perhaps had some merit. Such consideration notwithstanding the opinion described a balancing of interests, whereby those of the public regarding child welfare superseded that of Prince's free exercise (Frankel, 1994: 71). Justice Murphy's dissent is instructive for what was to come, he said that "convincing proof" was necessary to show that the child's religious actions were harmful, and necessarily concerned a public welfare rationale. Such convincing proof may be compelling interests in another discussion; that discussion was about to begin.

Braunfeld, 366 U.S. 599 (1961) has an interesting position in doctrinal scholarship, it is one of those cases that has added significance because it represents the "one before" an important lineage began. Such cases may be credited as providing a doctrinal springboard, or moving doctrine within one step of re-articulation. Braunfeld is unique however in that the professed reasoning and operative doctrinal logic is essentially that which presently comprises free exercise jurisprudence. Rather than focusing on beliefs distinguished from actions as the Court had been doing, Chief Justice Warren declared that an otherwise secular public policy could not be superseded by religious rights if that policy exacted only an indirect burden on religious practice. Essentially Braunfeld represented the proposition that free exercise was an antidiscrimination clause, therefore de facto disparate impact had little bearing in an arena where only de jure discrimination was scrutinized strictly. The dissent of Justice Brennan gives voice to the doctrinal era about to open, relying on the free speech strict scrutiny model he pondered, if not downright criticized, the nature of the compelling state interest which overwhelmed, if incidentally, the Orthodox Jewish interest in working on Sunday instead of the Saturday Sabbath.

4. Modern Free Exercise: Compelling Interests Weigh Heavily

In the period between Sherbert v. Verner, 374 U.S. 398 (1963) and Employment Division, Department of Human Resources of Oregon v. Smith, 494 U.S. 872 (1990) compelling interest doctrine was copied from free speech jurisprudence to free exercise, riding the strict scrutiny standard. While it had always been accepted law that explicitly targeting religion through policy was severely constrained,[25] the post Sherbert free exercise cases largely focused on when, and whether, a policy whose incidental effects interfered with the free exercise of one's religion could be prohibited. If free exercise was significantly burdened by a state policy, as was claimed in Sherbert, then a tougher standard of review of that burden was justified by the Court.

Justice Brennan's Sherbert opinion inquired as to whether the interests of state or society were "compelling," and whether the means employed to satisfy that interest were the "least restrictive" of religious exercise. In Sherbert the incidental impact of a state unemployment benefits law upon the decision of a Seventh Day Adventist to refuse Saturday work was not sustained by the state's interests in a functioning unemployment benefits system. Free exercise appeared as a pseudo-entitlement in Sherbert, and this seems sensible when viewed against the backdrop of developing welfare state judicial activities. No longer would a policy's claimed secular validity be enough to sustain it, nor would the belief / action distinction be determinative, instead interests would have to be explicitly identified and balanced against claimed rights. Much balancing would be accomplished before Smith and the Court's subsequent abandonment of compelling interest doctrine, but very little detailed or analytical identification of those interests accompanied that balancing.[26]

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[25] Explicit targeting of a practice which may be constitutive of a religion can be sustained for secular purposes, but the hurdle is raised very high, at least in theory.

[26] See Gottlieb (1988) for a detailed examination of the compelling interest doctrine as a foil for claims of fundamental rights. In it Gotlieb argues that the major criticisms of finding fundamental rights from constitutional inferences should also apply to compelling interests, essentially they are each sides of the same coin and should both be subject to similar analysis and argument. Gotlieb finds that this is not

It has been noted (McConnel, 1992: 127; Sullivan, 1992: 215) that the Supreme Court was conservative[27] in its application of the compelling interest doctrine, or at least in accepting its application, in free exercise cases. In the 27 years of the doctrine's presence in free exercise cases, the Court found that free exercise claims triumphed in but one case outside of unemployment benefits law, the area opened by Sherbert. That case is the famous Wisconsin v. Yoder, 406 U.S. 205 (1972), with its protection of an Amish individual from criminal prosecution for pulling his children from schooling at a young age. The court rejected other types of free exercise claims by stating that compelling interests were present or by reasoning that the levels of scrutiny represented by compelling interest doctrine should be supplanted by a less stringent rational basis test (Sullivan, 1992: 215). The second condition has two manifestations, first where state administrative interests in secure institutions (e.g. military, prisons) effectively lower the required standard for accommodating alleged religious practices. Second, culminating in Smith, that otherwise valid secular policy need not be examined under strict scrutiny so long as it was not on its face discriminatory, and that any burden on religious practices was incidental and did not coerce actions contradictory to religious belief.

Compelling interest doctrine remained determinative in unemployment benefits cases in the period between Sherbert and Smith. Specifically in Thomas v. Review Board of the Indiana Employment Division, 450 U.S. 707, (1981), and Hobbie v. Unemployment Appeals Commission, 480 U.S. 136 (1987), the Court struck state laws which were found to burden religious free exercise without the necessary compelling interests. Thomas affirmed an entitlement to unemployment benefits when an individual refused work because of religious objections, i.e. the production of tank turrets. The state's interests in providing unemployment compensation effectively and fairly, and only

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the case, that in fact the deferential posture of the judiciary to state interests is quite out of line with the often articulated critique of its activism in the area of civil and individual rights. See also Levinson (1994) for a search for compelling interests in the politics and state institutions of Oregon prior to Smith.

[27] This is meant to imply that the Supreme Court chose not to be expansive, some might say they were apologetically backpedaling in giving life to compelling interests in free exercise.

to those who lost their jobs "legitimately," did not outweigh the fact that the means to those ends not only burdened Thomas's religion, but coerced him to violate a tenet thereof.

Hobbie extended this reasoning, and doctrines perhaps, to a Florida case. A Seventh Day Adventist sought unemployment benefits pursuant to termination over refusal to work on Saturday. Again the state's interests burdened free exercise by forcing a choice between a particular livelihood and Hobbie's religious tenets. The controlling compelling interest doctrine had a distinctive domain where those interests seemed insufficient, unemployment benefits cases where the policy would force a choice between job and religion.

The exemptions from policy as in Sherbert were closed off to other areas, yet the compelling interest doctrine would be incorporated in that process, hence maintaining doctrinal authority in other areas of free exercise law. In Gillette v. U.S., 401 U.S. 437 (1971) the Court weighed the interests of the U.S. military against those of both prospective servicemen and active servicemen.[28] For both however, while their religious exercise was certainly burdened by membership in the armed forces, or by being subject to conscription, the interests of the military and state were significant and brokered no exemption as in unemployment benefits policy. Perhaps we can view Sherbert and Gillette as poles on a spectrum of interests, the Court had staked out the ends, the task then becomes finding the boundaries between them.

What about state interests in social security and internal revenue? Would they provide the boundary sought? The case of U.S. v. Lee, 455 U.S. 252 (1982) moved that boundary closer to Sherbert by upholding state interests in the social security system that would have required Amish employers to deduct and then submit to the IRS social security taxes. Similarly, in Hernandez v. Commissioner, IRS, 490 U.S. 680 (1989) compelling state interests in a functioning tax system overwhelmed Church of Scientology members

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[28] This was a consolidation of cases.

attempts to deduct from their taxes payments made to that church for the practice of "auditing."[29] The Court, while skeptical of the religious nature of auditing in this context, based its decision of the compelling interest doctrine, choosing not to investigate the nature or essence of Scientology's claim to religious status. So in each of these instances, as recently as 1989 in Hernandez, the compelling interest doctrine was active, though where it was superseded by an individual's free exercise claim was stuck on unemployment benefits, and the ever lonely Yoder.

The end of compelling interest doctrine in free exercise law with Smith, other than in the dormant area of explicitly discriminatory policy, seems sudden in light of Hernandez the year before. Using Karl Llywelyn's ideas, one could say that justices, and judges generally, could easily argue that significant fact pattern differences distinguished Smith's doctrinal treatment. But, as is evident, Justice Scalia in Smith went out of his way to show why the compelling interest doctrine did not belong. The Court's Smith decision is at the end of a counter-current litany of cases within the Sherbert to Smith period. That is, in doctrinal constitutional law scholarship there is an established practice of looking back from these watershed cases to determine where they come from, scholars basically deny the possibility that a doctrinal shift can occur suddenly, without build up of some sort. The following build up shows how a deferential judicial posture was crafted by first distinguishing the legitimate institutional spaces for making a compelling interests determination, and second, by eliminating the test altogether along with strict scrutiny of otherwise valid non-discriminatory secular policies.[30]

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[29] Auditing is an initiation rite, consummated with payment by aspirant members to the Church.

[30] The old de jure / de facto distinction of equal protection lore. So long as the policy did not facially discriminate against religion, or as it would later determine in Church of the Lukumi Babalu Aye v. City of Mont Hialeah, 113 S.Ct. 2217 (1993), did not in effect target a specific insular religion or its practices, and it served a legitimate end, then it need not be tested against free exercise claims.

5. The Beginning of the End for Compelling Interest Doctrine

The definition of legitimate institutional spaces for the application of compelling interest doctrine seemed settled, or at least accepted, until Goldman v. Weinberger, 475 U.S. 506 (1986) and O'Lone v. Shabazz,482 U.S. 342 (1987). The doctrine had been determinative in areas as diverse as military conscription and internal revenue administration. With these two cases, the institutional spaces of the military and prisons became significant as to whether the doctrine could be invoked or not. In Goldman and O'Lone the doctrine was objectively jettisoned due to the controlling effect of a particular fact: the state institution proffering interests. Free exercise claims in the military and prison would henceforth be held up to a less than strict scrutiny "legitimacy" standard, the challenged policy need only be a legitimate means to an administrative end, one viewed deferentially by the judiciary.

The final phase in the pre Smith period is written by the Court's attention to notions like "valid secular" policies and "incidental burdens." Bowen v. Roy, 476 U.S. 693 (1988) tested the efforts of parents to deny acquisition of a social security number.[31] The forced enumeration of citizens was a valid policy representing a legitimate government interest, as if it mattered anymore, and that the manifestation of those interests occasionally incidentally burdened the free exercise of religion. The case of Lyng v. Northwest Indian Cemetery Protective Association, 485 U.S. 439 (1988) completed the sweep by upholding the construction of a Forest Service road through public land considered sacred to Native Americans. Moving beyond the balancing of interests, the Court maintained that not only was the road policy neutral in that it targeted no particular religion or religious practices, but that any "incidental burdens" were subsumed by the validity of that neutrality. Lyng established that unlike in unemployment cases, where a policy forced a choice between

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[31] The social security number was considered a soul robbing practice, going well beyond the claim of stigmatization.

religious exercise and penalty (i.e. denial of unemployment benefits), the policy here had no such implications, the burdens were incidental and forced no such dilemma.

Smith presented the Court with another unemployment benefit case, and would seem to have fit under compelling interest doctrine as practiced through Hobbie. Members of the Native American church in Oregon were terminated from their jobs, paradoxically, as counselors at a private drug and alcohol abuse clinic, for using peyote. Oregon law at the time prohibited the use and possession of peyote, and more importantly, state unemployment benefits were contingent on the cause, or context, of one's unemployment. In Oregon, one fired for misconduct could not receive unemployment compensation, and certainly actions contravening state felony statutes could be construed as such. Smith, and co-petitioner Black, claimed that their free exercise rights were unconstitutionally constrained by the coerced choice between their jobs (and by association their unemployment benefits) and their religious practice of ingesting peyote. They put forth a case profile, an image, suggesting this case was little different from Sherbert, Thomas, and Hobbie, where individuals were compelled to either contravene religion or state law. Compelling interest doctrine was a central element of that profile, and the Court could have been reasonably expected to continue its tradition. Justice Scalia, cognizant of the "valid secular" and "incidental burden" influences in cases like Lyng and Roy, and consistently pining for deference to state legislatures, took strict scrutiny and its compelling interest doctrine on.

Justice Scalia's opinion denied the application of the compelling interest doctrine as the Sherbert tradition intimated. Smith established that free exercise challenges to generally applicable, religion neutral laws should not be evaluated with strict scrutiny, but rather a variant of a rational basis test. Simply, if the law banning peyote was rational,[32] and of

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[32] There was little discussion of what constituted rationality, perhaps all that is needed is the fact that a deliberative / representative body passed the law. Probably more accurately the test for rationality is a religious neutrality test, little attention to policy means is required

course not on its face discriminatory, then there was no cause for a constitutional issue to be raised. If exemptions to otherwise rational neutral laws were to be developed it should be done legislatively.[33]

Justice Scalia made two significant points about compelling interest doctrine. First, the Sherbert standard or practice was invoked where a choice between a job, and subsequent unemployment entitlements, and religious exercise existed, not between committing a crime and religious exercise as Smith did. In keeping with Llewelyn's notion of narrowing the relevant fact domain so as to shape precedential choices, Justice Scalia claimed Smith was really about something quite different. Second, he took on the doctrine itself, noting a "parade of terribles" that would have resulted if it had not been for the Court's selective, and pro state, application of compelling interest doctrine. It is the selective nature of the application that seems to trouble Justice Scalia, such selection is problematic, and should be left to political bodies to decide.[34]

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[33] As a matter of fact this occurred in Oregon, passing a law in the wake of Smith that established an exemption from the peyote prohibition laws for religious practices, outside of prisons of course.

[34] See Smith, (1990), If the compelling interests test is to be applied at all, then, it must be applied across the board, to all actions thought to be religiously commanded. Moreover, if compelling interest really means what it says (and watering it down here would subvert its rigor in the other fields where it is applied, many laws will not meet the test. Any society adopting such a system would be courting anarchy, but that danger increases in direct proportion to the society's diversity of religious beliefs, and its determination to coerce or suppress none of them. Precisely because we are a cosmopolitan nation made up of people of almost every conceivable religious preference, Braunfeld v. Brown, and precisely because we value and protect that religious divergence, we cannot afford the luxury of deeming presumptively invalid, as applied to the religious objector, every regulation of conduct that does not protect an interest of the highest order. The rule respondents favor would open the prospect of constitutionally required religious exemptions from civic obligations of almost every conceivable kind -- ranging from compulsory military service, see, e.g., Gillette v. U.S., 401 U.S. 437 (1971), to the payment of taxes, see, e.g.., U.S. v. Lee; to health and safety regulation such as manslaughter and child neglect laws, see, e.g., Funkhouser v. State, 763 P.2d 695 (Okla. Crim. App. 1988), compulsory vaccination laws, see, e.g.., Cude v. State, 237 Ark. 927, 377 S. W. 2d 816 (1964), drug laws, see, e.g., Olsen v. DEA, 279 U.S. App. D.C. 1, 878 F.2d 1458 (1989), and traffic laws, see Cox v. New Hampshire, 312 U.S. 569 (1941); to social welfare legislation such as minimum wage laws, see Tony and Susan Alamo Foundation v. Secretary of Labor, 471 U.S. 290 (1985), child labor laws, See Prince v. Massachusetts, 321 U.S. 158 (1944), animal cruelty laws, see, e.g., Church of the Lukumi Bably Aye Inc. v. City of Hialeah, 723 F.Supp. 1467 (1989). . . environmental protection laws, see U.S. v. Little, 638 F.Supp. 337 (1986), and laws providing for equality of opportunity for the races, e.g. Bob Jones University v. U.S., 461 U.S. 574 (1983) .

As a final note on Smith Justice O'Connor's concurrence of judgment should be mentioned, if for no other reason than it is generally considered to be the textual and intellectual inspiration for the Religious Freedom Restoration Act (42 U.S.C. 2000bb to 2000bb-4 (Supp. V 1994)). Justice O'Connor suggested this was as good a place as any to apply compelling interests doctrine, and one where its application would have been relatively unproblematic, as there certainly are compelling social and state interests in the prohibition of drugs. She, the author of Lyng, distinguished this case on the nature of the religious interest burdened, and the manner in which it was burdened. In Lyng, the burden, while real, was incidental to a legitimate state function, and importantly did not force the wholesale abdication of a centrally important religious practice as in Smith.

6. The Aftermath: Religious Freedom Restoration Act and Beyond

The reaction to Smith was politically active. The Religious Freedom Restoration Act, proposed in 1990, was finally passed in November of 1993, providing a doctrinal endpoint to this chapter's survey. RFRA was an explicit attempt to legislatively salvage compelling interest doctrine. It is unusual for a doctrine to be so obviously discarded as in Smith and then resurrected by direct congressional and presidential action. It is much more common for a case like Smith to inspire legislative bodies to create individual exceptions to laws which had been constitutionally contestable. To re-articulate a judicial, and in this case a constitutional, standard was nothing if not a controversial congressional action. In the Spring of 1997, the Court struck RFRA in City of Boerne v. Flores, 117 S.Ct. 2157 (1997) as an unconstitutional expansion of Congress' 14th Amendment enforcement powers.

RFRA was "an effort to enact the theory that the free exercise of religion is a substantive civil liberty . . . an attempt to create a statutory right to the free exercise of religion" (Laycock, 1994: 896). Congress actions are an extension of its enforcement powers under Section 5 of the Fourteenth Amendment, much the same as applied in the

Voting Rights Act. Political interests, often of very divergent nature, were allied to support RFRA, and particularly its reinstatement of the compelling interests doctrine to free exercise law. Groups like the National Association of Evangelicals, the Mormons, the ACLU, and People for the American Way lined up in behind RFRA (Steinfels, 1993: A18). Opposition from Catholic Bishops, due to the potential abortion implications, as well as from prison administrators, who feared overaggressive interference with prison administration slowed RFRA's enactment. Several senators stalled the bill's passage until an amendment was proposed to exempt prison administrators. That amendment ultimately failed, and the prison issue became the most rhetorically, and judicially, contentious of RFRA's subsequent application.[35]

Provisions of RFRA addressed the intent of the Constitutional framers, attributing to them the expressed desire of protecting the unalienable right to religious free exercise. (42 U.S.C. 2000bb (a)(1)) Specifically, where "governments. . .substantially burdened

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[35] See Hamilton (1994:48) for discussion of prisoner challenges: See Merritt-Bey v. Delo, No. 93-2194, 1994 U.S. App.8th Cir. June 17, 1994) (determining that the court need not reach the effect of RFRA where plaintiffs failed to make a threshold showing that their exercise of religion was substantially burdened by the correctional center); Smith v. Elkins, No. 93-15185, 1994 U.S. App.(9th Cir. Mar. 2, 1994) (remanding for determination of RFRA's effect on a prison rule prohibiting inmates to communicate in a foreign language where plaintiff had alleged that prison discipline for praying aloud in Arabic violated his constitutional rights to free exercise of religion); Canedy v. Boardman, 16 F.3d 183 (7th Cir. 1994) (noting that had prisoner's assertion in his brief, that a strip search by female officers particularly burdened him because he was a Muslim, been amended to the complaint, though likely doomed under Smith, such a claim may succeed under RFRA); Prins v. Coughlin, No. 94 Civ. 2053, 1994 U.S. Dist. S.D.N.Y. Aug. 3, 1994) (denying injunctive relief to prevent a prison transfer where plaintiff failed to show that transfer imposed a substantial burden on the exercise of his religion as required under RFRA); Boone v. Commissioner of Prisons, No. 93-5074, 1994 U.S. Dist. (E.D. Pa. July 21, 1994) (finding that plaintiff prisoner failed to make the threshold showing under RFRA that confiscation of certain religious documents and a fifteen-day cell restriction was a substantial burden that either pressured him to commit an act forbidden by his religion or prevented him from having a religious experience which his faith mandates); Messina v. Mazzeo, 854 F. Supp. 116 (E.D.N.Y. 1994) (noting that RFRA raised the government's burden to demonstrate a compelling, rather than legitimate, interest, but further determining that government need not make such showing where plaintiff prisoner failed to establish that he was denied the right to practice his religion); Campos v. Coughlin, 854 F. Supp. 194 (S.D.N.Y. 1994) (determining that because prison directive which prevented Santerian inmate from wearing religious beads did not have a rational relation to even the government's legitimate interest, it was unnecessary to apply RFRA's higher standard); Allah v. Menei, 844 F. Supp. 1056 (E.D. Pa. 1994) (concluding that RFRA provides the standard of review in controversies involving prison rules that substantially burden prisoner's religious practices); Lawson v. Dugger, 844 F. Supp. 1538 (S.D. Fla. 1994) (determining that RFRA's standard required the Department of Corrections to use the least restrictive means to further its compelling interest, which it failed to do);

religious exercise without compelling justification," RFRA was intended to provide recourse. (H.R. Rep. No. 88, 103 Cong.(1993) and cite 42 U.S.C. 2000bb (b)(1)) RFRA provided:

(a) Findings
The Congress finds that -
(5) the compelling interest test as set forth in prior Federal court rulings is a workable test for striking sensible balances between religious liberty and competing prior governmental interests.
(b) Purposes
The purposes of this Chapter are -
(1) to restore the compelling interest test as set forth in Sherbert v. Verner, 374 U.S. 398 (1963) and Wisconsin v. Yoder, 406 U.S. 205 (1972) and to guarantee its application in all cases where free exercise of religion is substantially burdened. 42 U.S.C. 2000bb.

Explicitly taking on Smith, RFRA provides that "government shall not substantially burden a person's exercise of religion even if the burden results from a rule of general applicability, except as provided in subsection (b) of this section," i.e. except where the compelling governmental interest and least restrictive means tests are met.

RFRA applies to all governmental burdens on religious conduct, including every "branch, department, agency, instrumentality, and official (or other person acting under color of law) of the United States, a State, or a subdivision of a State." Reacting to Smith's perceived dismantling of compelling interest doctrine Congress perhaps pushed its Section 5 powers under the 14th Amendment. That constitutional provision has been interpreted as a remedial power to take national legislative action against laws and policies that restricted or interfered with due process rights (e.g. voting). Challenges to RFRA focused on this power push, while the rhetorical war was waged on RFRA's use by prisoners to file so-called frivolous challenges. RFRA would collapse due to the prior but would earn dubious distinction from the latter.

Flores represents the death of RFRA, falling upon its explicit expansion of Congress' enforcement powers under Section 5. The opinion of the Court by Justice Kennedy, comparing RFRA to the Voting Rights Act, showed how Congress' power was remedial, not pro-active; and most importantly, not pro-active in the sense that it sought to

alter a Constitutional right, something the Court considers fixed in the Constitution. The Court establishes authoritative interpretations of constitutional rights, Congress may enact laws to protect those rights, but traditionally only after a law or policy negatively influences those rights. Congress heard what the Court had to say in Smith, did not agree, and passed legislation overtly contradicting the result of Smith, and explicitly articulated what the appropriate doctrinal standards of constitutional free exercise rights were. Justice Kennedy's opinion found this unacceptable. For that moment, and likely for some time, compelling interest doctrine was effectively eliminated from free exercise law with Flores.

C. Conclusion

The preceding analysis of compelling interest doctrine was a self conscious attempt to explore an area of constitutional rights law in the tradition of scholarship around such rights. Compelling interest doctrine can be seen as a part of a larger history engulfing the Court and American politics generally. In time of formalist old, before the age of incorporation, when facts and law were thought clearly distinct, and where neutrality and tolerance were ideological pillars of doctrines like belief / action dichotomies, interests were of political significance only, they had no standing yet in law. With the watershed events of early 20th century constitutional law, destroying protections for economic liberty and substantive rights of economic liberty, and replacing them with a deference to legislative policy making and heightened scrutiny of policies which interfere with political rights, the role of interests became enhanced. The strict scrutiny appropriation of compelling interest doctrine accommodates both of these tendencies. Strict scrutiny is symbolic of the federal judiciary's self proclaimed intention of being more active in the area of political, and ultimately individual, rights. At the same time, compelling interest doctrine provided a ready made construct for incorporating the state into discussions of those rights. In such a way that they could quite effectively trump those same rights, and in the area of free exercise examined here that was more than often the case.

CHAPTER IV

LEGAL INFORMATION MACHINES

A. Introduction

Tools do not make a craftsman's finished product, his labor and skill are his own, but that product is intimately connected with the devices and methods employed in his craft. Tools allow the individual to create in a particular fashion that which may not be possible without them. Some tools are instrumental to a trade or craft, such that the objects created would not exist without the advent of those tools, or at a minimum, they would not be as finely finished or useful. Tools help create parameters of the possible, they provide spaces or potential for creativity to take hold and make something, to add meaning and value to the human endeavor. Those parameters however are limiting as well, they freeze the range in which creative energies may be applied. It is at the point of frustration and recognition of limits that individuals push at those parameters, either adapting existing tools or building new ones, to move beyond the status quo of a productive domain that is no longer satisfying to the users of those tools, or to the consumers of the goods produced.

Tools for managing information present many of the same issues, except that in social arenas like law, the product of legal actors and their tools of information management have impact upon the lives of a multitude of social actors beyond the immediate circle of tool users. Tools of law's information management are both enabling and constraining, Doctrine as Data attempts to explore how some of these tools, and practices associated with them, help shape the meaning of doctrine, an abstraction of law manifested in federal appellate case opinions. It has been suggested that the manner of law's information presentation is nearly as significant as the information itself, certainly it is central to the

meaningful content of that information, and thus the actions and beliefs that flow from conceptualizations of that information.[1]

The need for managing legal information is linked to the development of legal traditions and institutions dependent upon specific knowledge bases and experts to interpret and act on that knowledge. Record keeping in a tangible medium is not required, pre-literate cultures had law, or at least a stock of behavioral norms and attendant traditions of observation and enforcement, organized in the minds of experts and subjects alike. This project though is grounded in Anglo-American law, a tradition now fully dependent on writing (i.e. the ability to record data meaningfully on a portable durable medium) and structured sensemaking around law's written hard data.

In Anglo-American law information management has been called upon to provide meaningful access to the texts of case opinions. Information systems, or machines, are created to record, index, and catalogue case texts. As the body of texts has increased, and the needs of legal professionals become more complex, information systems' categorization and organization practices have been stressed, and meaningful access become more challenging. Two hundred years ago a lawyer might need to keep track of relatively few cases[2] of precedential value to his substantive and jurisdictional area of practice. Today, in the wake of over one hundred years of comprehensive and universal case reporting by the likes of West Publishing, and the adherence, at least in practice if not theory, to notions of stare decisis, precedent, and analogical reasoning, the scope and complexity of a practicing lawyer's information needs has increased significantly.[3]

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[1] See discussion of West's structuring power for the knowledge base of indexed case law (Berring, 1987: 25)

[2] There are a variety of information systems employed in and around law, certain systems more significant for this project. Those which allow for access to appellate cases of the federal courts are most useful to professionals and scholars probing such notions as precedent. Rather than paying attention to systems which allow local police to monitor sex offenders or the local district court to record and make available case and trial reports, the project pays attention to appellate cases of the federal variety, those heard in the Supreme Court or Circuit Courts of Appeal.

[3] Adherence to practices like stare decisis require that data objects be categorized and normalized to fit particular meanings. With the incredible increases in the rate of case opinion publication it becomes

B. Yearbooks, Nominative Reporters, and the Wild West

The common law took form in relation to techniques for managing authoritative information, techniques of presentation, reasoning and argument, rule application and ultimately decision rendering and reporting. Writing and print has had an important role to play in the story of law's information machines. In the 12th century, the expansion of the English royal courts and the beginning of record keeping by those courts in plea rolls linked the future of common law with texts and understanding them.[4]

Early English common law information systems were dependent upon individual efforts and talents. Legal practitioners were the repositories of legal knowledge, but even in the long formative period of the common law (roughly between the 12th and 16th century) there were written records and interpretations of court actions. Until the late 19th and early 20th century the power of intellect and traditions of interpretation was still the core of law's inherent (or contrived?) coherency, as recorded authority was still supplementary. The first recorded, and so-called authoritative, legal information system was the Yearbook.[5]

The Yearbooks were recorded elements of court proceedings as well as authors' notes of the significance or implications of those proceedings.[6] Despite the authoritative power of the Yearbook it was an informal system of record keeping. Yearbooks were

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difficult for precedential trails to be maintained, simply, a studious and rigorous researcher can potentially find all form of cases to back up a variety of argument positions. Such variability defies the old structures of stare decisis and analogical reasoning as exhibited in traditional legal education and practice models. Information systems which attempt to continue the structuring of those models while simultaneously publishing copious numbers of cases are inherently stressed, or are stressing upon things like stare decisis.

[4] See work which surveys legal information systems (Grossman, 1994).

[5] For a more thorough discussion of the Yearbooks see Hicks (1923: 94-102).

[6] Elements of court proceedings and authors' notes might be a difficult distinction to sustain upon close examination, generally though the prior refers to points of law and decisions, perhaps factual patterns as well, those things considered relatively unproblematic in case reporting. The latter might then be understood as an extension of the 'elements of court proceedings,' or interpretations of those proceedings by the author.

voluntarily created for a community of lawyers and judges. Interestingly until the 15th century authorship was anonymous, perhaps signifying a desire for perceptions of legal objectivity, or more likely the fact that many individuals were responsible for their creation (Grossman, 1994: 8). Yearbook coverage was quite limited, extending to cases which were fortunate enough to be recorded by individual efforts.

Nominative reports succeeded the Yearbooks,[7] and represented a more formal version of edited interpretations of court cases. Reports included written pleadings, which had largely replaced oral pleadings, a statement of the issue of law at hand, and a report of the opinion, essentially creating the model for modern reports.[8] The doctrine of precedent spurred their development as lawyers sought authority, and a competitive edge, for their use of case histories and arguments of points of law. Like the Yearbooks the Nominative reports were largely informal, an information system that developed because of a market need,[9] one which further solidified the common law's preeminent characteristics (e.g. case based and precedent organized). Nominative reports were also voluntary creations, but authors were responding to the desires of their contemporaries and the interests in law's proffered coherency and authority.

Nominative reports proliferated somewhat in America in response to the perceived need of establishing an American variant of common law,[10] yet one which was still very

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[7] See Hicks above and his discussion of the first nominative reports (circa 1571). Interestingly the language of legal information was French at this time, English translations would not appear until the mid 1700s. This condition is itself worthy of examination, the power of reporters was tightly bound with its language, since a relative minority would be conversant in Law French, knowledge of law's principles and tenets, not to mention the cases giving life to them, would be tightly held and managed.

[8] See general discussion of Nominative Reports and the influence they had on the forms of modern case opinions (Grossman, 1994).

[9] Did the reporter fill the need or did the creator of the reporter then stimulate a way of practice, a way of acquiring and manipulating authoritative information? This is a challenge that contemporary Marketing Ph.Ds are considering in different contexts. In my line of analysis though I stick to constitutive guns and suggest that causality is multidirectional.

[10] See excellent treatment of different legal information techniques in relation to common law Berring (1987: 32).

much connected to its English heritage. Nominative reports were alone in the reporting and organizing of American case law for only a short period, by the early 1800's courts themselves had begun to integrate case reporting into their institutional mix.[11] Judges, lawyers, and legislators recognized the significance of an information system to court function and legitimacy by assigning reporting duties to court employees, or subcontractors in some instances. Nevertheless, the law, conceived as the principles and tenets inherent in the mass of cases, was still largely unrecorded. Written reports, whether nominative or court sponsored, were few when compared to the case law from which they emerged.[12] Lawyers and judges were still forced to organize and manage the information necessary for their respective practices, the reports, while increasing in importance and depth of coverage, as well as providing a model of what was possible, could not completely comprise an individual's information system.

The combination of nominative and court reports was subsumed by the organizing and universalizing power of the regional reporters privately provided by the likes of West publishing.[13] In the mid to late 1800's courts were creating an increased supply of reported opinions, and at the same time the task of organizing them became more than individuals, either private or court officers, could feasibly manage.[14] Dilemmas of scope and breadth, as well as structured knowledge representation and organization, made the previous methods difficult. The West Publishing company appeared to normalize the knowledge

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[11] See general discussion of early reporters and their significance to then developing Court institutional practices (Joyce, 1985).

[12] Berring cites Hicks, in 1848 there were 800 volumes of law reports (Berring, 1987).

[13] West by no means was alone in its efforts, and of course it still has competition (e.g. Lawyers Edition Reporters, Lexis / Nexis, and a raft of Internet facilitated archives and indices)

[14] "In substance our law is excellent, full of justice and good sense, but in form it is chaotic. It has no systematic arrangement which is generally recognized and used, a fact which greatly increases the labors of lawyers and causes unnecessary litigation" Terry (1920: 61).

representation scheme, cover all jurisdictions, and provide a low cost product to the market of American lawyers.

C. Law and Information Machines

1. Information Systems

The social reality of law has consistently been the product of conceptualizations of, and actions relative to, legal forms and information; whether those are conceptualizations or actions of individuals faced with contemporary legal institutions, actors, and practices or with pre-modern oral cultures and justice traditions.[15] Law helps structure understandings of authoritative, individual, and collective actions, those understandings are grounded in direct experience and second hand knowledge, acquired from authoritative and informal sources.[16] Informal sources can be as abstract as intersubjective knowledge bases (i.e. cultural values and predispositions grounded in empiricism and hearsay) which maintain cynicism and distrust of law and law enforcement in minority communities of urban America (Meares and Kahan, 1998). Formal, or authoritative, sources of legal knowledge include legal education, and most importantly for Doctrine as Data, systems developed to manage law's hard data, i.e. federal appellate case opinions.[17]

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[15] See discussion (Berman, 1978: 563) for a of the power of words to the function of a legal system, belief in the power of certain words, put certain ways to bring about certain effects denominated as legal. This kind of magic is necessary if law is to work. Also, Ethan Katsh (Katsh, 1989: 8-9) contains a general discussion of law's informational quality. Law does not simply consume or produce information; law structures, organizes, and regulates information. The effectiveness and operation of law depends on controlling access to some information and highlighting or directing attention to other information.

[16] See Wilson (1983) for a thorough discussion of how individuals gather knowledge of their social worlds. Wilson suggests that for the most part individuals gather knowledge through second hand accounts, that it is simply impossible to experience enough of the world to gather enough intellectual fodder for a full social life. Therefore, assessments of what and who to believe when confronted with second hand knowledge, or accounts, becomes critical to individual and social life. Determinations of authority is key to that endeavor, and such determinations are often grounded on political, personal, or even fashionable criteria

[17] Berring suggests (Berring, 1994: 7) that legal education was constructed on, a foundation of abstract legal thought and that thought was given structure and meaning by the information system that produced legal education. Berring attributes the Langdellian case method and its relation to the law library as the key factor in the developing educational system.

Legal authority in Anglo-American law is found in cases and practices of making sense of them. Blackstone's attempted codification of Anglo common law principles in an organized treatise set the stage for a market which sought synthesis and structure in an expanding domain of legal material. While Blackstone's work has been criticized for bias and oversimplification of disparate case material,[18] he nevertheless established expectations that common law principles could be ascertained by scholars and judges from case opinions. That act would make use of knowledge structures or abstractions to order and organize data into meaningful categories or narratives (e.g. intellectual traditions). Doctrine is in a class of knowledge structures like that of principles and tenets, an abstraction which is meaningful to understanding cases. Common law principles, tenets, and doctrines could all be distilled from appellate cases manifesting law's structure and parameters.

> The doctrines of the law are built from findable pieces of hard data that traditionally have been expressed in the form of published judicial decisions. The point of the search is to locate the nugget of authority that is out there and use it in constructing one's argument. (Berring, 1994: 44)

Written judicial opinions are the bedrock of American legal education and practice.[19] Dean Langdell's case method and the Harvard Law school library set a standard, building a framework for American legal life and its authoritative materials which has remained vibrant and contemporary through its association with law's preeminent information system, the West digest and reporter.

Information systems are mechanisms or practices to store and provide access to data objects (i.e. a database and organizing / access techniques). Data objects are discrete

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[18] See Duncan Kennedy's analysis (Kennedy, 1979)of Blackstone's work .

[19] As a driving force behind the legal system, the concept of abstract legal principles as extruded from the opinions of appellate judges has survived the succeeding waves of jurisprudential theory crashing on the beaches of American law. Legal realism, critical legal studies, critical race theory, and each other variant on the traditional theme laid siege to the old grand theory of the common law. But the system of legal research, of finding primary sources and interpreting them as if they are [*16] nuggets of absolute authority and truth, survives and flourishes. (Berring, 1994: 49)

entities which constitute the base units of an information system, they are the stuff upon which these systems are built. Data objects can be of all variety and type, index cards with names, phone numbers, and addresses are simple data objects in a rolodex information system. Alphabetization of the rolodex is one possible organizational structure,[20] thus users know how to look for desired data objects and addition of new data objects to the system is regularized.

Information systems help make data objects understandable though their organization and retrieval mechanisms. Not that the data objects are meaningless unless encapsulated in such systems, but reliance upon their form, location, and access routines is significant to the information seeker, especially when there are many data objects and the structure of the system corresponds to prevailing categories or knowledge bases about those data objects.[21] Information systems structure elements of meaning for data objects. This is especially so for systems indexed or organized on subject areas assigned by human hands (i.e. editors). Systems which index exclusively on the textual content of data objects may also impute significant meaning to those data objects, but that is likely more tied to the querying / searching activities of users, and the pre-existing knowledge bases they bring to bear, rather than the editorial actions of system designers and managers. If anything, the latter systems (e.g. full text Lexis / Nexis, Westlaw, or probabilistic inference InQuery), challenge or at least problematize some of the abstractions and knowledge structures associated with cases by law's knowledge experts.

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[20] While most such indexes are alphabetically ordered there are other ways of arranging the cards, by frequency of contact, by numerical address, by relative fondness for the referenced individual. The organizational scheme is only limited by the different characteristics which can be derived from the data objects and the desire of the indexer to structure the database so as to implement those desires.

[21] See following discussion of the West digest and reporter system and its correlation to prevailing notions of law's categorization into subject areas and classifications of data objects (i.e. cases).

2. Law's Information Machines

Information systems and their associated practices of organization and management transform data to information for users of those systems. In law these systems manage an increasing array of data, from enormous civil litigation document collections to Supreme Court briefs and opinions. Doctrine as Data primarily focuses on systems managing federal appellate case opinions. Presently, the judges opinion is considered the most authoritative data object for these systems; while systems like Lexis / Nexis also include statutes, administrative rules, and a wide range of so-called secondary sources, the primary data object for legal authority is still the case opinion. This was not always the case, as lawyer's arguments were at one time considered part of the authoritative opinion, and included in the data object. The implication is that these information systems reflect understandings and assumptions at moments of system creation and maintenance. Such reflection does not significantly alter the data object's physical presence in a medium, but from that fixed point of information on paper, or electro-magnetic disc, the conceptual content is subject to mediation and interpretation by system designers and users.

Systems which manage law's authoritative materials are more than just automated document handlers, they also tend to structure or alter meanings attributed to that material. The objects incorporated in, and then transmitted between machine and user, is information rather than simply data any longer. Machines organize data in particular ways and allow access to that data through structured queries and interface protocols. Objects flowing from machine to user have identifiable, if complex or contested, meanings. Meaning here is the result of a function of practices, one which takes into account the words or symbols representing that data object, a so called empiricist notion,[22] as well as the context, expert knowledge, and associated interpretations of those objects in and out of their specific

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[22] See discussion (Brigham, 1978: 17) of positivist or empiricist theories of language and meaning of Wittgenstein and Harrison.

information machines. While meaning is often in dispute because of the fuzziness of such things, this project attempts to pry at some structures and practices around these machines which help make case opinions and doctrine meaningful.

Case opinions can represent different things, for instance a doctrinal sea change or affirmation, a statement of the law in a particular constitutional area, or a travesty of justice. Work, and law, at least partially facilitated by these machines carry with them concepts attributed to such informational objects:

> These devices function like DNA; they enable the current system to replicate itself endlessly, easily, and painlessly. Their categories mirror precedent and existing law; they both facilitate traditional legal thought and constrain novel approaches to the law. . . A scholar who works within one or more of these systems finds the task of legal research greatly simplified. Beginning with one idea, such systems quickly bring to light closely related ideas, cases, and statutes. The indexes are like a workshop full of well-oiled tools, making work easier. Relying on them exclusively, however, renders innovation more difficult; innovative jurisprudence may require entirely new tools, tools often left undeveloped or unnoticed because our attention is absorbed with manipulating old ones. (Delgado and Stefancic, 1989: 208)

It is very difficult to completely separate legal scholarship or practice, and therefore law's social reality, from the structuring power of these information machines and the knowledge bases upon which they are drawn.

3. Machines and Abstractions

Data is of course information, it is a representation of some observable phenomenon, representation is by default a conceptual transformation, with meaningful attributes being attached or attributed to that data. Any attempt to distinguish data from information is problematic, but what can be stipulated is that highly categorized legal information systems attach more interpretive authority to data objects. Systems which treat case opinions as merely related collections of phrases and terms as Lexis / Nexis or InQuery does implies a lower level of abstraction than that of West's digests and reporters. Abstraction is a mediating power of information machines, and it is considerably more

difficult to sustain highly abstracted concepts in machines which do not categorize on interpretive notions like area of law (i.e. as in the West digest), but are much more likely to note the presence, occurrence frequency, and distribution of concepts (i.e. as in InQuery) within a related collection of objects.

Data as Doctrine was designed to step away as far as possible from abstractions inherent in indexed information systems, to minimize the impact of expert knowledge on searches and subsequent analysis. But as will be discussed more in subsequent chapters, the core identity or profile of the data collection is defined by an abstraction, free exercise compelling interest doctrine. Researchers can try to treat cases as merely data objects containing particular terms and phrases which identify those cases as doctrinal, but if the goal is to collect cases which exhibit an abstraction like doctrine (i.e. at least compelling interest doctrine in free exercise law), one with as many synonyms as compelling interests, you should be prepared to consult an abstracted index or other knowledge base.[23]

Rather than stepping away from abstraction, it became the focus of attention, the practices of information machines which either attribute or alter the meaning of the abstraction doctrine became the object of this project's investigation. By attempting to stay away from abstractions it became all the more apparent that they are central to an existing knowledge base about law, and that different information systems have distinct influences upon, and are influenced by, that dominant knowledge.

4. Machines, Practices, and Meaning

Mechanisms for managing case opinions, the hard data of law, attempt to satisfy the desires of evolving information markets. Since the turn of the century West Publishing has reigned supreme in satisfying these needs with its universal coverage, unique indexing

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[23] See work (e.g., Blair and Maron, 1985; Berring, 1986; Dabney, 1986) which show that legal full text retrieval may miss a number of on point cases when searching for a complex expression or knowledge structure represented in a variety of ways and applied across a number of contexts.

scheme, and status as the reference backbone of law libraries. West's indexing and market dominance has placed a distinct stamp on law and legal education, defining ways of knowing, and shaping our understandings of the source materials of American law.[24] It is this stamp which incubates new desires and markets, inspiring scholars and information professionals to explore new ways of knowing and accessing those same materials.

On-line legal databases like Lexis / Nexis and Westlaw, compact disc legal document libraries, and Artificial Intelligence software systems to assist legal professionals are law's newest information machines, perhaps satisfying developing market needs. These tools reside within two basic camps for computer assisted legal research: information retrieval and expert systems.[25] Information retrieval and expert systems are designed to assist users by modeling and ultimately automating certain law practice tasks.[26] Expert systems, which often also contain information lookup and retrieval functions, tend to utilize a top down structure, asserting the existence of a relatively fixed and quantifiable legal expert knowledge base, one crucial for organizing and interpreting data, and that such expertise and its application to discrete tasks can be modeled in software algorithms and databases.

Expert systems attempt to mimic legal reasoning through rule structures (i.e. if / then statements) which produce discrete answers or outputs. The major challenge with expert systems is that capturing legal reasoning and expert knowledge in discrete functions is quite rigid, it represents a snapshot of legal knowledge and practice, and presupposes that the snapshot will be valid for some time, or at least will change only incrementally and thus can be altered with new if / then rules. Perhaps in some areas of legal practice this is

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[24] For discussion of the power of West Digest and Reporters in the creation of law's "universe of thinkable thoughts" see Berring (1994: 15-16).

[25] See work (Zeleznicow and Hunter, 1994) For a more thorough treatment of these two models.

[26] The paradigmatic task is: first, the presentation of an information need (e.g. perform a search of cases for precedent or construction of an argument for a given fact/law pattern); second, the development of an information representation for that need; and finally looking-up and reporting the findings in a meaningful way.

appropriate, where "hard cases" of categorization or interpretation are minimized, and discrete answers are legitimate. However it seems unlikely that this is the norm, that in fact, most areas of law practice require fuzziness and interpretation for the analogical reasoning and argument said dominant in that practice, and fuzziness is difficult, if not impossible, to model in structured if / then rules.

Information retrieval applications, like Lexis / Nexis, Westlaw, and InQuery, shy from the aggressive stance of expert systems. Adopting a bottom up approach, information retrieval applications utilize elements of the data objects themselves to structure organization and access. Information retrieval systems put the power in the hands of system users rather than designers and associated knowledge experts. Such systems can be considered wide open tools, allowing the parameters of practice available to knowledge workers to be as undefined as they wish, really only being constrained by the limits of their search strategies and the language and structure of opinions as they are created by judges.[27] Systems like InQuery for retrieving and examining legal texts may also allow for the derivation of knowledge from within collections of related documents, knowledge that may not be obvious to legal knowledge experts, and that only shows up over the stretch of a related document collection.[28] For this project InQuery was appropriated to seek knowledge about a collection of documents (i.e. case opinions) held together by a distinct abstraction, the compelling interest doctrine within Free Exercise case law. InQuery, and other cutting edge information retrieval systems, improve document retrieval relevancy

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[27] This is no small constraint. Search techniques in the age of Boolean searching (more on this in subsequent chapters) are restrained by lack of experience and exposure of users (and Boolean logic is not easy once you pass the basic AND / OR operators). New interfaces (i.e. Natural Language searching) reduces the skill level necessary of a searcher, these systems rely on technology like that of InQuery, which seeks to map relationships between data objects based on the presence of terms and phrases, as well as the creation of synonym look up tables (i.e. association thesauri) which expand searches greatly by including synonyms to terms in the original search profile.

[28] In this work (Aronow, et. al.: 1995) InQuery was used to manage a national database of doctors notes regarding asthma and breathing related disorders. InQuery exposed knowledge about asthma attacks that doctors were not authoritatively aware of, but when a large collection of doctors notes was examined for textual relationships it was found that night coughs had a high correlation to incidences of asthma exacerbation, thus adding to the stock of knowledge about asthma

through more nuanced "understanding" of both the expressed information need (i.e. database query) and the informational representation of documents in the collection (Jing and Croft, 1995). Rather than importing all knowledge from experts to design document collection handling, InQuery and other information retrieval systems employ a limited amount of expert knowledge while looking to the documents and relationships inherent in them to derive further knowledge.

All of these systems utilize defined practices for manipulation and organization. Meaning for cases is tied to those practices. In systems such as a Yearbook knowledge experts (i.e. lawyers) were the key players, they defined not only what the data object should look like, or contain, but they also chose which cases were of import to their relevant community of lawyers and judges. The Yearbook recording lawyer was responding to the needs of variable markets, they were neither universal (i.e. representative of all data object types) nor comprehensive (i.e. covering all jurisdictions and courts), it was an idiosyncratic endeavor. Meaning for data objects was inherently tied to each market and the community of lawyers populating it, to their needs and wants, and how those desires were translated into the activities of the recording lawyer.

West's digest and reporters on the other hand were universal and comprehensive, normalizing the data objects to an extreme, at polar opposites from the idiosyncratic approach of the Yearbook authors. Particularities and nuances of the data objects were undoubtedly lost in West's editorial and organizational efforts, where as they were emphasized and brought forth in Yearbooks. More significantly, West adopted a subject categorization scheme and editorial practices which assigned headnotes and places for cases within that scheme, further attributing and altering the meaning of cases. Such schemes also lock up or take a snapshot of the existing knowledge base of law in those categories, notwithstanding their incremental strategies for growing beyond that static representation.

Computer systems like full text Lexis / Nexis and InQuery treat the cases as relatively unstructured data objects, with very little editorial organizing as with West's

hardbound production. Full text replaced editorial mediation with the power to find data objects based on textual content. InQuery expands that power by identifying associations between words and phrases in the collection, thus increasing the reach and scope of queries, and potentially enhancing the stock of knowledge about such collections. These systems are entering a world of legal education, research, and practice which has been intimately tied to West and the law library. Subject area classification and categorization are not part of these computer tools, all that matters is the content of the documents and the conceptual relationships and patterns within collections. Since West has been the default for over 100 years there is predefined meanings associated with cases in that system, and with collections of cases corresponding to particular subject areas of a digest. Computer tools often problematize that structure by bringing into question what really ties groups of cases together beside West editors and long standing epistemological traditions in legal practice and education.

CHAPTER V

DEFINITION AND DISCOVERY - LEXIS / NEXIS

A. Introduction

The following is an examination of the use of Lexis / Nexis to collect a data set in the form of federal appellate case opinions. The data set is content and domain specific: a compelling interest balancing test within free exercise of religion cases at Supreme Court or Federal Circuit Courts of Appeal. That data set is then processed by the InQuery information management system in order to analyze occurrence frequencies and co-occurrences of key concepts across that collection.

Data resides in information machines, and is shaped and made knowledgeable by practices for indexing and providing access to that data. This project sought to use the doctrine of compelling state interests in free exercise law as a search profile for the subject collection. However, it becomes apparent that an abstraction like compelling interest doctrine challenge the automated full text search and collection capabilities of tools like Lexis / Nexis. In fact, attempting this task problematized doctrine's form and presence in case opinions, and brought to light the significance of information machines and practices to sustaining, or challenging, existing knowledge bases. To explore the data set as a representation of doctrine in constitutional law the role of machines in manifesting doctrine through that data is addressed.

B. Full Text

1. Background

Computers and databases present new opportunities for legal information machines. These machines emerge from several intellectual streams: out of computer systems

engineering and the creation of operating systems configured to manipulate documents,[1] and also from developments in Artificial Intelligence computer science which try to mimic human intelligence, or at least some intelligent human tasks, and finally the desires of new and old legal information market entrants to facilitate computer assisted legal research. Artificial Intelligence efforts in law are divided into two basic camps, information retrieval and expert systems. The following introduces information retrieval technology of full text databases, systems well entrenched in the markets of legal practice and scholarship, and representing the most accepted and commercially successful of computerized legal information systems. This market has been largely dominated by Lexis / Nexis and Westlaw and their on line legal databases, yet with the proliferation of compact disc technology and vast computer networks there is an increasing array of systems and products providing access to law's data.

Full text systems like Lexis / Nexis are document retrieval machines. They are designed to manage document collections by organizing and storing data objects in a database, creating indices to those objects, and providing a query language to manipulate the index and gather relevant documents.[2] Law has traditionally been at the forefront of document retrieval and information management, however it required the burgeoning aerospace and applied science technologies of the 1960's to spur markets for full text indexing (Krevitt Eres, 1980: 134). The associated explosion of technical documents and information objects drove the development of "finding aids," computer systems for making masses of information meaningfully available to users (Krevitt Eres, 1980: 134). Indexing techniques evolved with the processing power of computers, allowing for the brute force and universal coverage of full text, where every term in a document collection is indexed.[3]

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[1] The dominant computer operating system, aside from the ubiquitous Microsoft entrants in the PC market, has been UNIX (Kaare, 1983).

[2] For a more formal model of information retrieval see (Dabney, 1986: 7) .

[3] The three major developments leading to full text: first, Uniterm, an early 1940s multi term indexing system developed by Mortimer Taube; second, Uniterm was supported by coordinate indexing

There is no need for expert knowledge or editorial control over this form of indexing, it is derived solely from a term's presence in the text. Also, since each index entry for every term includes pointers to all term occurrences in the collection it is possible to incorporate proximity and occurrence frequency in the query and retrieval process.

The development of full text indexing was not missed by those with an interest in law. At the University of Pittsburgh in 1960s John Horty developed a database system to manage health related statutes, and in 1965 had begun to incorporate court decisions into the mix (Rose, 1994: 106-7). In Ohio, a group of lawyers took note of Horty's work, and suggested a model for a legal information system based on the same technology (Harrington, 1985: 543 - 556). The group (OBAR - Ohio Bar Automated Research) contacted a private firm, Data Corporation, and solicited the creation of a full text legal information retrieval system that would be accessible via dedicated dial in phone lines, would allow individuals to structure and execute Boolean searches, and would deliver the requested documents to the users. In 1969, perhaps sensing the burgeoning information marketplace in law, Mead Data Corporation purchased Data Corporation and Lexis / Nexis was born four years later. West entered the digital market in 1975 with its own computer assisted system, yet it was only bibliographic database (i.e. not full text, only with abstracts and references to West's hardbound versions). This decision (i.e. bibliographic nature of indexing) was rectified in 1978 when Westlaw was launched, essentially duplicating Lexis / Nexis's full text capabilities, and supplementing them with West's headnotes and references to page numbers in the hardbound system.

Improved computer processing power and memory capacity were only part of the story of full text's development in law. One under examined element of the story is the implicit attack on the status quo of law's information management. Lexis / Nexis represented a major challenge to West, by both providing a competitive service, but by

which uses sets and Venn diagrams to compare query concepts to those in the index (i.e. Boolean query). Finally, an automated indexing scheme was developed in the late 1950s by Hans Peter Luhn which recorded, and indexed on, the occurrence of every term in the document collection (Krevitt Eres, 1983:134).

adding value to the data object (i.e. the original case opinion[4]) by enabling searchers to structure their own research desires, without explicit look up in the West system. West developed Westlaw as a direct response to Lexis / Nexis, at present West is still struggling to catch up in the expanding on-line market.

2. Organization and Indexing

Theoretically subject categorizations and their editorial interpretations of cases are made less significant by full text machines like Lexis / Nexis. These machines do not organize cases interpretively, they use brute force to manage document collections. Rather than relying on the subjectivity and elegance of an editorial scheme which categorizes cases or their parts for indexing, each case opinion is considered a text document comprised of terms and phrases. Case texts are organized into fields corresponding to elements of the opinion (e.g. name, date, body of opinion, opinion writing judge, dissent, dissent writing judge). Cases are primarily indexed on the terms and phrases which constitute them, therefore retrieval of cases depends on the presence and patterns of those terms and phrases. Fields provide another level of indexing by breaking cases into sections which correspond to structural areas of significance to writers and readers. Short of creating fields in documents that correspond to subject categorizations machines like Lexis / Nexis will not present law's mandarin materials in the traditional way.

An inverted list index is used to manage these documents. Each unique term and phrase encountered is entered into a master term/phrase list for the collection. Each occurrence of a term or phrase (i.e. its location) is recorded in the inverted list, creating references from list entries for each term and phrase to the documents containing them. Searches are term or phrase based, users query these machines to return cases with terms

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[4] There is another story to be told regarding proprietary claims to case opinions by Westlaw and Lexis / Nexis. Essentially Lexis / Nexis is foreclosed from using any West reporter text or citations without licensing from West (who is not inclined to do so). Therefore Lexis / Nexis has had to procure access to case opinions incrementally, via official reporters and by soliciting individual judges.

and phrases they consider significant to their research needs.[5] Such machines put researchers and practitioners in direct contact with their data, without the need of mediation by editors, other scholars, and subject categorization. However, as this project explores in the following section, such an emancipation is not necessarily met with unabated acceptance or appreciation.

3. Strengths and Weaknesses

The strengths of full text are best seen in contrast to proffered weaknesses of the edited indexing and complex layering of pre-existing hard bound systems like West.[6] In those systems which depend on human editing there is the possibility of variance from the editing schema which will result in erroneous referencing, or worse, loss of data object altogether. The power to access many cases quickly and through multiple channels of querying far exceeds what an individual can do manually, depth and detail can be attained quickly, without much query preparation or background research. At base though, the major distinction, and some would say improvement, is the direct connection between researcher and data. The normalization of West subject categorizing and other editing enforced a systemic status quo, full text challenges that most directly by not incorporating categories. The data is wide open, available to all those who know how to ask questions most easily represented in the provided query language, and those most aware of how the system organizes its documents.

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[5] Boolean logic is the standard query language for these databases. Enhancements to both Lexis / Nexis and Westlaw have added inferential and probabilistic retrieval techniques interfaced by Natural Language query ing. Natural Language querying is not structured in any particular way, users need only type a sentence or collection of terms/ phrases which he/she thinks is significant or captures his/her informational need. With this form of information retrieval the presence or absence of particular search terms or phrases is not solely determinative, it is possible for a documents relevancy to be relatively high because it contains synonyms or associated terms and phrases to those supplied in the query. The information representation of the query is expanded from the query's constituent terms and phrases by the use of such tools as association thesauri (based on things like co-occurring or synonymous phrases)

[6] See nice discussion of full text (Berring, 1986: 41-43).

This can be a weakness as well as a strength. Full text machines allow researchers to query databases of law's mandarin materials without explicitly incorporating a subject categorization like those of traditional digests and reporters. But legal reality is a result of many years of legal practice and politics grounded on, and expressed in, knowledge tied to existing information machines and their practices of indexing and access. By default, legal research endeavors originate from an intellectual tradition which is predicated on particular ways of knowing law. Therefore, when questions are asked of a legal information machine they assume, and reaffirm, that the terms of those questions mean something relative to a specific historical authoritative interpretation. When questions are about subjects not typically indexed, e.g. black women and employment discrimination,[7] we may be left wanting. Maybe there is no agreed upon unity of knowledge pursuant to certain subjects in traditional machines like the digest and reporters, but there are analogs and closely related areas of law upon which to draw reasonable assessments. The analogies and relations are created relative to expert knowledge bases and information practices sustaining them. So, when questions are asked of Lexis / Nexis or Westlaw, it is more than likely that those questions are the product of knowledge practices of the edited world of digests and doctrine. The structuring power of default conditions is significant.

4. Other Challenges with Full Text

Full text information retrieval depends entirely upon the words in the data objects to be stored and accessed. In subject indexed systems humans have to interpret words, and distill sense from not only the physical presence and stream of words, but the associated contextual and conceptual understandings of those data objects. In law this is pronounced, part of the meaningfulness of cases has long been associated with an interpretation and

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[7] See Richard Delgado's discussion of West Digest categorization scheme and his sample search for cases on Black women and employment discrimination (Delgado and Stefancic, 1989). In it Delgado notes that since there is not a subject categorization as such it becomes difficult to find the relevant case law, and thus it becomes more difficult to articulate claims of black women regarding workplace discrimination.

placement of those cases in knowledge bases and practices. Full text as an organizational technique ignores such meaning, this is both advantageous for its liberating quality, but also disadvantageous because contextually sensitive interpretations are default in law.

Full text presents three basic problems associated with dependence on words as organization base units: synonymous words, ambiguous words, and complex expressions (Dabney, 1986: 18-19). These problems focus on a particular characteristic of the forms of case opinions, and their place in interpretation and statements of the status of law. Legal writing, particularly case opinions, relies on a group of practicing actors who are similarly schooled and situated vis-a-vis social and political phenomena. Legal writing is dependent on many practices, implicit and explicit, which give levels of meaning to the words and phrases comprising such things as cases.

Information retrieval has as its stated task the effective processing of user queries to identify relevant data objects to that user and then returning those documents for their perusal. Measures of recall and precision tend to provide benchmarks for assessing retrieval efficacy. Recall measures how well all relevant documents were retrieved (i.e. percentage of total relevant documents returned), while precision measures the percentage of relevant documents in of all those returned.[8] The study of Blair and Maron (Blair and Maron, 1982) is the most noted examination of full text systems for their efficacy at document retrieval.

5. Blair and Maron Study

Blair and Maron tested IBM's Storage and Information Retrieval (STAIRS) full text system for recall and precision. The STAIRS system had been specifically configured as

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[8] See Berring's discussion of recall (Berring, 1986: footnote 51): "Recall is the ratio of the relevant documents retrieved by the search to the total number of relevant documents in the database. For example, if a database consisted of 1000 documents, 100 of which were relevant, then a search that retrieved 50 of the relevant documents would have 50% Recall. Precision is the ratio of relevant documents retrieved to total documents retrieved. For example, if a search retrieved a total of 75 documents, 50 of which were relevant, then the Precision would be 50 / 75 or 66%."

an expert assistant (yet information retrieval system) for litigation in a corporate law suit. The database consisted of roughly 40,000 documents and nearly 350,000 pages of text. STAIRS allowed for Boolean (e.g. coordinate indexing) querying of the database, as well as facilitated field level searching within data objects. STAIRS also employed a domain specific thesaurus[9] to find synonyms and related terms and phrases to query terms and phrase, thus expanding the possibilities for the particular information representation of that query.

Researchers were presented with 51 information requests by litigating attorneys, each request was transformed to a STAIRS query, executed, and the returned documents were screened by researchers and attorneys, if the attorneys estimated the recall to be less than 75% then the query was reformulated. Recall assessments are curious. To assert that recall was less than 75% attorneys would have to know of specific materials not returned, or know of an area not dealt with in the returned materials, or simply act on a hunch that something was missing. This would prove to be the most problematic of the two measures.

Precision was derived after the last iteration of queries for each of the original 51 information request by the attorneys. Precision values were pretty high, on average about 79%, however, the recall, estimated to be at least 75% by the attorneys on the fly, was determined to be only about 20%. Blair and Maron suggest that their attorneys randomly sampled the materials in the database to determine that there were in fact many desirable documents yet to be found by the search engine, thus low recall. There seem to be problems with this method of analysis however.

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[9] A domain specific thesaurus is a look-up table, they can be automatically or manually constructed for particular knowledge domains (e.g. specific thesaurus for contexts of corporate liability law or asthma diagnostics in medical research). Queries are expanded by adding thesaurus entries for a given query's terms and phrases. Thesauri depend on particular relationships or associations, most are grounded on synonyms. The InQuery search engine utilizes an automatically constructed thesaurus, an InFinder, to expand user queries. InQuery uses an association thesaurus, that is, rather than cross-referencing based on similar meaning as with a traditional thesaurus, InFinder cross-references on co-occurrences between terms and phrases.

The attorneys structured their evaluation of returned and non-returned materials on characteristics both linked to and independent of particular term or phrase occurrences in the data objects. The concept of an "on point" case is wedded to existing information systems and knowledge practices, subject categorization is an example of a knowledge practice that has some significance here. This being the case there will be a built in recall drag or gap, simply, if the evaluating lawyers are bringing with them notions of on point, then a full text system is going to never reach lofty recall heights. Random sampling and extrapolation of tendencies found is a sound approach, but the evaluators are part of the variance produced, they structure the recall gap. A random sample of attorneys would improve this, spreading the decisional weight around a bit. Nevertheless, Blair and Maron make a strong case that the recall assessment process is valuable and is accurate given the context of this particular information retrieval experiment.

Why? is the next question.[10] The indeterminacy of words and the complex concept laden environment of legal information is the likely culprit. Words have synonyms, and depending on the context the domain of synonyms can change considerably. Thesaurus construction for domains of data, and use in conjunction with search engines can alleviate this problems somewhat. Words are also ambiguous, subject to competing interpretations. There is little that can be done to make computers distinguish between competing meanings of similar words and phrases, other than developing association or use profiles which indicate particular word / meaning combinations likely in textual contexts that are subject to fuzzy categorizations. Certain meanings for given words can be ascertained by paying attention to those words and phrases most closely associated with them. This is a harder stretch than a simple synonym or association thesaurus. Complex expressions represent perhaps the greatest challenge to full text.

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[10] For good discussion see work by Berring and Dabney (Berring, 1986; Dabney, 1986).

Law involves ideas, sometimes neatly correlated to narrow textual expression, often though much less so (Childress, 1984). For those concepts which are articulated in text but not necessarily linked to a tight domain of words and phrases full text is not terribly useful. This begs the question, what ties these concepts together, or more to the point, what ties the cases together said to give life to these concepts.

For this project doctrine, and a particular knowledge representation of one, is the collating concept. Nevertheless, the doctrinal choice (i.e. compelling interests), albeit a complex knowledge expression, is fairly common and distinct, with little apparent ambiguity, but with many synonyms. The complexity does give way in a sense to textual regularity, or at least it is suspected to. With Blair and Maron in mind Doctrine as Data set forth to use full text Lexis / Nexis to define, delimit, and acquire a collection that reasonably articulates the compelling interest balancing test in the realm of free exercise law. That endeavor however tends to support Berring, Dabney, and Blair and Maron's contentions about the constraints of full-test systems when querying based on a complex expression.

C. The Process - Lexis / Nexis and Doctrine

1. Definition and Discovery

The case collection was to be defined in purely textual terms (i.e. possessing particular terms and phrases in defined patterns), querying and collecting from a database of cases was to be largely automated, and then some cursory human examination of those cases was planned to tag the data objects to manifest some basic distinctions, essentially creating subsets of data. The primary distinctions were whether the claim to religious free exercise violation were sustained or not.[11] Finally, each virtual subset, and some

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[11] Other tagging includes cases that involved prisoners. Prison cases represent distinct treatment of free exercise claims after O'lone v. Estate of Shabazz, 482 U.S. 342 (1987). Prior to these cases the compelling interests doctrine was part of the evaluative mix, or balancing of interests. There fore cases prior to these should legitimately be in the data set, after however the balancing test was dropped in favor of

combinations thereof, were to be analyzed for concept occurrences and co-occurrence associations using the InQuery probabilistic information retrieval system. The point of the InQuery exploration was to determine what the most significant occurring concepts in each subset were, and then determine what other phrases are most highly associated with them. It was hypothesized that this analysis might be useful for understanding what the doctrine compelling interests imputes in the decisional mix of these cases, and whether there is consistency or coherency represented in occurrence frequencies and co-occurrence frequency associations which may be correlated to doctrine's presence.

The following describes the attempt to satisfy the first element of the constructed story, to define and collect the cases considered relevant to the compelling interest doctrine in free exercise law. That attempt however exemplified the fluid nature of doctrine, and its attachment to knowledge bases and traditions which, while they may be articulated in some information machines, are not readily present in full text systems like Lexis / Nexis. Doctrine is already meaningful, largely defined and understood by knowledge workers like this researcher. However, attempting to capture it in a textual form as described herein shows the intersubjective nature of doctrine more fully, and perhaps problematizes any centrality or coherency that may be attributed to cases said manifesting it by the knowledge experts who teach in law schools, who write constitutional commentary, who reside on federal appellate benches, and who order and structure access to law's hard data.

At its simplest, this phase represents the acquisition of federal appellate opinions manifesting compelling state interest doctrine, and the division of those opinions by disposition, producing several files to be processed by InQuery. While reviewing legal research reference texts the following passage seemed significant to this phase, as well as to the larger questions of the project:

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a administrative purpose rationality test. That is, if the challenged policies were administratively rational, then it was not an issue for the courts to intervene in.

> The modern law library is a collection of old and new publishing technologies, books and computers, working together. Neither Westlaw nor Lexis / Nexis is the panacea for all of your research needs. For some types of research, the old ways are still the best. For example, searching for broad concepts, such as negligence or proximate causation, is most effectively begun with treatises or digests. For other types of research, the speed, ease, and accuracy of computerized legal research should make Westlaw your starting point . (Wren and Wren, 1993: 4-5)

Why was it better to use computer databases of law for narrow searches, like for a fact pattern or judge, or for a citation or particular utterance, but not effective for broad concepts? Were not so-called broad concepts the compilation of smaller legal linguistic units? The passage indicates that there is something about broad concepts, perhaps doctrine for instance, which is hard to completely capture in words, or at least words we might expect to be markers of that doctrine.

Legal practitioners and scholars traditionally learn doctrine from the expert knowledge bases of legal education and academic disciplines, through experience. At the outset, this work tried to minimize reliance on these knowledge bases, gathering opinions by searching for cases with only the broadest hallmark characteristic terms and phrases, i.e. doctrinal markers or signifiers.[12] Despite the power of Lexis / Nexis automated collection was impeded, yet it made obvious an element of the subject doctrine that the search profile missed. This element presents a gap, one worth studying as this project explores the conceptual content of judges words. Such is a first step, for clearly how we "get it" depends on how we "know it," and of course the reverse, how we "know it" depends on how we "get it."

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[12] Doctrinal markers or signifiers are the key descriptive concepts of that doctrine; they are utilized to execute searches for desired compelling state interest / free exercise cases.

2. A Doctrinal Signifier

The initial step was defining case characteristics (i.e. doctrinal signifier or profile) and domains which provide guidelines for identifying data objects in the database. This seemed to be the easiest part of the endeavor, at least until some Lexis / Nexis queries were executed and questions arose as to scope and expression of the doctrine, not to mention the role compelling interests played in the decision represented by the case opinion. The presence of the signifiers "compelling state interest" and "free exercise" was the essential criterion for selecting case opinions. The domain of cases had to be delimited not only by subject matter and presence of doctrinal signifier, but temporally as well. Coinciding with expert knowledge about free exercise law from commentary, scholarship, and pedagogical experience, it was known that the compelling interest doctrine, as part of the strict scrutiny standard, became operative in free exercise jurisprudence in 1963.

Authoritative knowledge around constitutional law had a profound effect from the beginning. That knowledge is the product of scholars and judges, and is articulated in commentary, texts, and scholarship about the compelling interest doctrine in free exercise jurisprudence. In addition to the basic subject area domain knowledge experts stipulate that free exercise jurisprudence, at least at the Supreme Court, was divided into doctrinal phases, and the phase articulating compelling state interests seemed to begin with the famous Sherbert in 1963 and end with Smith in 1990.[13]

The data set is explicitly drawn from Supreme Court treatments of compelling interests and free exercise, as well as those carried out in the federal circuit courts. This posits that the Supreme Court's behavior and doctrinal expressions in opinions are used to define a data set including landmark Supreme Court cases, and less known Supreme Court

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[13] As it would turn out the death of compelling interests in Smith was perhaps overstated. There continued to be religious freedom cases at the federal circuit level where compelling interests were part of the decisional mix. Additionally, the Religious Freedom Restoration Act (and in 1999 the Religious Liberty Protection Act) continued to keep compelling interests in free exercise law. Thus the data set would include cases that came after Smith . It is another project to investigate the way Supreme Court decisions become policy and practice in the lower courts.

and federal circuit court cases opinions. Delimiting as such tends to gloss over the fact that the Supreme and circuit courts are locked in a reciprocal relationship which defines the institutional hierarchy in which they exist. According to traditional understandings of that structure the Court defines the law, affirming boundaries of subject areas and doctrinal applications, and it flows to the circuits, federal district courts, and ultimately state courts as authoritative precedent.

In this model is appears as if the Court acts first, making decisions, rules, and giving life to doctrines, when really it is very often the reverse. Considering that very little comes to the Court under original jurisdiction any longer, many cases pass through the circuits first. And as would be the case in this data set, even after the compelling interest doctrine was jettisoned by Justice Saclia in Smith several circuit court cases subsequent to that action dealt with the doctrine, giving life to the Supreme Court's decision by interpreting Smith and making distinct decisions affecting the status of law. Hence there is a discursive give and take between the two appellate levels. Nevertheless, the editorial, or expert knowledge practices, in law and scholarship are fixed on the Court. This project declines to challenge that, but does incorporate a more holistic view of the Supreme / circuit doctrinal relationship, suggesting that not only would the Court's treatment of compelling interests between Sherbert and Smith be instructive, but so too would be circuit court treatment in that same period. Afterall, it is the doctrinal discussion manifested in a text collection which are to be explored, that collection should be defensible on doctrinal grounds, despite hierarchical or institutional considerations that may be used to critique this decision.

Information authority and the systems and practices associated with that authority structured what could sensibly be asked or proposed. The way an area of law and cases is known is the product of exposure to systems inherent in academic disciplines, libraries, and professional life. Gaps or questions arise from the status of those knowledge bases, from the conditions they represent, and from the application of new tools and research

agendas to the contextual world they authoritatively describe. Compelling interest doctrine is clearly more than just cases, more than just data, but can it be manifested in cases and data? can those data objects be the site of doctrine for analytical purposes? Or to study doctrine must the analysis be focused on the interpretive communities and their practices of making sense in, and of, case decisions?

3. Initial Queries and Results

Initial efforts to define and discover the relevant data objects were simple queries of full text Lexis / Nexis, and they sought to find Supreme Court and federal circuit courts of appeal case opinions with little human involvement save for proposing the query and perhaps downloading the results. However, this human researcher felt the need to examine query results for some rather loose determinations of recall and precision. No attempt was made to statistically calculate either because it was concluded that very high precision, that is few false positives (i.e. few returned documents that were not on point), was necessary. Recall, typically the most significant statistic to information retrieval efficacy, while still important was seemingly less so than precision. It was determined that a few missed data objects were acceptable because they would, hypothetically, still adhere to the same doctrinal patterns as those documents returned, therefore their absence should not have altered results in a significant way, unless of course there were lots of missed documents such that patterns were obliterated. A few false positives identified meant unacceptable precision however because those mis-hits might introduce a concept occurrence or co-occurrence that would give a false impression of the conceptual content and pattern in the collection. This analysis of doctrine could withstand missing some data objects which were on point, but could not handle many objects that were inappropriately included for fear of stilting the conceptual representation. False positives cannot be easily controlled for using full text Lexis / Nexis however.

But, are not false positives only that because of researcher interpretation? Do not those returned cases satisfy the queries equally well with those hits considered appropriate candidates for the data set? This implicates the knowledge representation of the query, that in some instances, that does not match up with what the user really wants, or more pointedly, is broader than the user wants, thus capturing more cases than necessary. Also, are not these false positives likely representatives of compelling interests? If it is that doctrine that is of interest, then why exclude cases which are part of its discourse? The answer is straightforward, to capture a data set which, as a clump, can arguably represent compelling interest doctrine's determinative influence in free exercise law. Cases with compelling interest language, and even application, from Establishment for instance will likely represent a different set of standards and / or metrics.

The text of "compelling state interest" and "free exercise" and a date range between 1963 and 1990 provided initial query parameters. The first set of queries were executed on Lexis / Nexis in the Genfed library and Courts file. Hits are from the following courts: US (Supreme Court), USAPP (Circuit Courts of Appeal), CACF (Court of Appeals for Federal Circuit), DIST (Federal District Courts), CIT (Court of International Trade), CLAIMS (Federal Court of Claims), TC (Tax Court), BANKR (Bankruptcy Court), CUSTCT (Customs Court), CVA (Court of Veterans Appeals). To delimit between cases from the Supreme Court and federal circuit courts of appeals and those from all others listed further querying or editing would be necessary, however there are very few compelling interest free exercise cases from these other jurisdictions. Querying performed two invaluable tasks, : first, to put the researcher in touch with the data through a machine, to give him the chance to take a measure of the data, to see its inherent and implied qualities; second, it problematized almost every concept that the initial queries relied on.

Appendix A outlines and describes the basic queries of the iterative search process, beginning wide open and subsequently narrowing and rearticulating to attempt a better fit between the desired information representation, or approximate representation, and the

researcher's developing understanding of the information system's handling of data objects (i.e. relevance feedback). Each query in Appendix A was executed in Lexis / Nexis interactively, results were available en mass and could be scanned individually using Lexis / Nexis' Lexsee case lookup facility.

D. Resulting Shape of Doctrine and Cases

False positives, those cases hit "rightly" but that were not really on point with respect to the desired application of compelling interests in free exercise, brought dicta[14] and authoritative understandings of free exercise case law to the forefront. Full text searches of case opinions treat all terms and phrases similarly, save for those instances where fields are employed, and even then all terms and phrases meeting the field requirement will be treated similarly. Full text machines cannot distinguish between dicta and the meaningful or determinative text of the decision. Doctrinal terms and phrases as presented in the Lexis / Nexis queries are just as likely to occur in dicta as not. Doctrine's textual presence in cases is easily sustained, but determining which doctrine is most significant because of its presence in the ratio dicidendi[15] depends on more interpretation than is currently incorporated in full text information management. This indicates notions of doctrine are well established already, such that we know pretty much what sorts of cases ought to be outside the set. For instance, to study compelling state interests in free exercise cases we know that cases about religious displays on public property (e.g. Establishment clause) that discuss areas of case law related to free exercise are not useful, fall out of the scope here. The set is to have cases which manifest the compelling state interests doctrine in free exercise law, scholars and practitioners can pretty well ascertain when a case meets that criteria because the categorization and inclusion based on doctrine or other subject area

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[14] Dicta is considered that part of a written opinion which is not part of the decisional mix or rationale or reasoning (i.e. the ratio decidendi).

[15] Ratio decidendi is considered that part of written opinion which contains the decisional mix or rationale or reasoning.

distinctions is an experience driven skill. Machine learning, and the modeling of human intelligence and the constituent skills for case based learning and reasoning, is still in its nascent form.

Doctrinal synonyms for a complex expression (Dabney, 1986) posed a significant dilemma. By randomly sampling free exercise cases returned with a wide open Lexis / Nexis search (i.e. cases with phrase "free exercise" in them between 1963 and the present) it became clear that there were other ways to express the notion of a balancing of interests implied by strict scrutiny standards (e.g. compelling government interests, overriding government interests, overriding state interests, interests of highest order, compelling justification for imposing this burden). Full text is devoid of the fuzzy logic with which human readers and editors make sense of data collections, people can relatively easily determine when a data object is related to a expressed information need. This phase of the project was faced with finding a way to incorporate that fuzzy logic in the doctrinal definition and discovery efforts, and given the problems of ambiguities and complex expressions in language, it looked as if the authorities of fuzzy categorization, the West editors, might have to be consulted.

The challenge exposed here is the separation of analysis from the knowledge structures which have held sway for roughly a century of American legal life. This projects attempts at separation fail early, by asking questions about doctrine like compelling interests subject categorization is implicated, thus structuring a domain of possible results. Some believe however that full text will have a profoundly different influence on law, where users going online in free text, "liberates them from any requirement to fit their thoughts into a pre-existing form" (Berring, 1987: 26,27). It remains to be seen whether research can in fact even evolve without some pre-existing form and move beyond the practices of knowledge management which create things like logic and sense and rationality in law's information space.

CHAPTER VI

WEST AND DATA SET COLLECTION

A. Introduction

Information resides in machines, and is shaped and incorporated into knowledge by practices for indexing and access. This project sought to use compelling state interests as a search profile for the subject collection. However, it became apparent that abstractions like compelling interest doctrine challenge automated full text search and collection capabilities of tools like Lexis / Nexis. In fact, attempting this task with Lexis / Nexis problematized doctrine's form and presence in case opinions, and brought to light the significance of information machines and practices to sustaining, or challenging, existing knowledge bases of law. To treat the data set as a representation of doctrine in constitutional law the role information machines in manifesting or facilitating doctrine needs to be addressed. This chapter focuses on how the West digest and reporter system provides access to, and ultimately helps shape conceptualizations of doctrine and case opinions.

Since the turn of the century West Publishing has reigned supreme in satisfying the information needs of American lawyers, propelled by its universal coverage, unique indexing scheme, virtual monopoly of circuit court opinion publication, and status as the reference backbone of law libraries. West's indexing and market dominance has placed a distinct stamp on law and legal education, defining ways of knowing, and shaping understandings of the source materials of American law.[1] It is this stamp which incubates new desires and markets, inspiring scholars and information professionals to explore new ways of manipulating those same materials.

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[1] West has the power, through the digest and reporters, to help create law's "universe of thinkable thoughts" (Berring, 1994:15).

B. West

1. The Development

The combination of nominative and court reports (see Chapter 4) was subsumed by the organizing and universalizing power of the regional reporters privately provided by West publishing.[2] In the mid to late 1800's courts were creating an increased supply of reported opinions, and at the same time the task of organizing them became more than individuals, either private lawyers or court officers, could feasibly manage.[3] Dilemmas of scope and breadth, as well as of knowledge representation and organization, made the previous methods difficult. The West Publishing Company appeared to normalize the knowledge representation scheme, cover all jurisdictions, and provide a low cost product to the market of American lawyers.

West integrated the numbering of official court reports to link its products to existing standards. Court reports had initiated a system of numbering volumes to associate them with particular jurisdictions and each other, this gave West a significant leg up on the developing market for authoritative legal information (Berring, 1987:33). Moving further yet from the disparate narratives of nominative and court reports, West strove for universal coverage and standardized data objets. After data normalization and integration with existing jurisdictional indexing systems (i.e. court numbering), comprehensive case reporting was West's other major innovation, or marketing decision depending on ones perspective,[4] that vaulted West beyond competing systems.[5]

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[2] West by no means was alone in its efforts, and of course it still has competition (e.g., Lawyers Edition Reporters, Lexis / Nexis, and a raft of Internet facilitated archives and indices)

[3] "In substance our law is excellent, full of justice and good sense, but in form it is chaotic. It has no systematic arrangement which is generally recognized and used, a fact which greatly increases the labors of lawyers and causes unnecessary litigation" (Terry ,1920).

[4] See a discussion of West's decision on comprehensiveness in : Symposium of Legal Publishers, 23 American Law Review 396 (1889).

[5] The West Company established a system for receiving copies of opinions from every jurisdiction. It prided itself on gathering decisions and verifying the text with the judge who wrote them.

After the initial publishing of West's Syllabi in 1876 the company began production of the regional reporters, starting with the NorthWest Reporter covering courts in the Dakota Territory, Iowa, Michigan, Minnesota, Nebraska, and Wisconsin. West's competitive advantages were low cost products, efficient and effective productive processes, and ultimately national coverage (Woxland, 1985: 119). While West's commitment to comprehensive coverage meant that many cases were now available for perusal by lawyers, it also created a mass of cases which were immediately more than an individual could reasonably manage without some overarching indexing system. Enter the digest in 1887.[6]

West outpaced the arrangements of the other edited reports, providing lawyers and scholars with access to nearly all cases,[7] allowing them to structure their informational needs and then come calling. In a sense what West offered was comprehensiveness and normalization in place of variable interpretations and comments on a select batch of cases considered significant. The profession embraced this emancipation much in the same way full text databases are today, but was immediately faced with a dilemma: how does a user access the information? How are searches formulated, and by association their basic inquiries, to ask meaningful questions of the database? Professionals wanted all the cases, but when presented with them they reached for the security of an editorial structure, and a way of making sense of that mass of material. West was there once again.

Secondly, West established a uniform format for reporting. All West reporters were designed according to the same formula. West produced a sterile court reporting system that guaranteed reliability through similarity. Caption, syllabus, and headnotes appeared in the same form in all jurisdictions (Berring, 1987: 21).

[6] For more thorough exploration of these events see (Marvin, 1969: 67; Woxland, 1985: 15-16).

[7] All cases in the 1800s for the original Northwest Reporters region were very likely recorded therein, however, in the 1990s it is quite probable that there are cases which are noted but not reported due to the relative importance associated with the presiding courts place in the judicial hierarchy.

2. Digest and Reporters

The digest system of keynumbers, headnotes, and subject categorizations was incorporated into the West line of products in 1887.[8] West established subject areas with an expandable base of categories to organize or index cases.[9] The original categorization, a universal subject thesaurus, was an attempt to distill the essential areas of law, the categorizations stuck, shaping conceptualizations of law since:

> The concept of a universal subject thesaurus, while not unusual in information science, reshaped legal research. For when West Publishing created the Key Number System, it not only enabled lawyers to research cases by subject, it also allowed and encouraged lawyers to fit every legal issue into a certain conceptual framework. . . The Key Number System provided a paradigm for thinking about the law itself. Lawyers began to think according to the West categories. (Berring, 1986: 32-3)

West developed its categorizations[10] to coincide with the Harvard law school and its prognosticator of the case method Dean Langdell.[11] The structuring power of subject categorizations is still manifested in the relationship between legal education and West Digest.

> The seven digest topics are: Persons, Property, Contracts, Torts, Crimes, Remedies, and Government. The first-year curriculum at Boalt Hall, a typical course load for major law schools, consists of Property, Contracts, Torts, Criminal Law, Civil Procedure, and Constitutional Law. Remedies are covered in Property, Contracts, and Torts, and Government is covered in Civil Procedure and Constitutional Law. (Berring, 1994: 35)

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[8] West had purchased a small publishing company, Little, Brown with *United States Digest*, and its existing intellectual property in then developing indexing techniques, the staff included one John Mallory. Mallory is credited with developing the Digest indexing scheme at West (Hicks, 1942; Surrency, 1990: 111-127; Woxland, 1985: 121).

[9] A so-called universal subject thesaurus, with a set of identified subjects said to incorporate any data object in need of indexing. Of course this system requires some growth for developing areas of law, but the essential characteristic of fitting cases to categories is determinative and dominant.

[10] See (Wren and Wren, 1986) for listing.

[11] Harvard law school, and more importantly the Harvard law library, was the site where the data of law would be housed, or more accurately, where it would be utilized by law's aspirant practitioners.

It is not the aim of this work to try to unlock those choices, but rather to acknowledge their influence on subsequent systems for managing legal information and what constitutes sensible utterances in the discourses of state and federal appellate law, and research on that law.

> The digest system is a prototype organizing system. It is pre-coordinated in that the producer, West, has pre-determined what the indexing needs of the user are. Here West produced a subject breakdown of every possible subject which could be the topic of an issue of law that could be resolved by a judge in an appellate decision. (Berring, 1994: 54)

> Given Langdell's stress on categorizing the law into inflexible subject areas, and the focus on law as finding primary sources, the legal information system played an especially dominant role. How one organizes the law became the center of what the law could and did mean. While this was a conscious process
> for Langdell and for West, as time passed legal scholars forgot that choices had been made and began to see the existing categories as inevitable; thus the gestalt of case law was created. (Berring, 1994: 55)

This power to assess sense is not unique to legal information management. Any system of information indexing requires decisions about how data is related, accessed, and made useful.[12] Users have to tailor their notions of cases, their interrelations, and what they mean, to the knowledge structures inherent in those systems.[13]

Each digest category and subcategory was assigned an identifying number, a keynumber, which would appear within headnotes for a case opinion. Headnotes were condensed, and hopefully distilled, blurbs describing the specific points of law for that case

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[12] See Dabney (1986) For a nice discussion of the power and implications of indexing techniques see (Dabney, 1986).

[13] This [WEST] subject arrangement lent its structure to American law. Because it was a universal subject thesaurus, locating every point in every case by subject, then placing the case in a location in the printed Digests, it imposed a continuing structure on the law. Language and concepts were normalized as the
West editor prepared the headnotes for each case, (remember West published a print version in its National Reporter System of every decision published), which helped to make the law comprehensible and lent overall structural coherence. Though West might adjust its subject structure, the fact of a
structure remained. Commentators criticized West, but there is no doubt that its family of publications had a profound and continuing impact on the way information about law was organized. West's influence may have saved the myth of the common law from what looked like its inevitable demise (Berring, 1987: 25).

within a particular subject category. Digests are generally ordered by sequential keynumbers (i.e. by subject categorizations), and references to cases within the digest identify the court, location, date, summarizing blurb, and reporter citations.[14] Digests are also organized by a descriptive word and case name index. The digest structures relationships between cases and indices, and creates realms or boundaries within which cases resided and are meaningful in certain ways. It is this power which has attracted critical attention, and perhaps stimulated the development of new markets for knowing law's data.

West developed a process for manipulating opinions before inclusion into digest and reporters. Initially new case opinions are processed by editors who check for citation and stylistic forms[15] to prepare the data object for the target information system. Editors then tackle the substance, preparing headnotes and keynumbers for each identified point of law, which is then passed through the discerning eyes of senior editors charged with maintaining structural consistency.

Scholars[16] have identified four essential problems with the digest system: first, human editors make mistakes, whether in higher level data object normalization, headnote composition, or key number assignment, if not recognized it can be incorporated into the system and forever lost to correction. Second, complex layering of indexing creates a maze of understandings attributed to data objects, to enhance precision editors are forced to expand the depth of indexing so as to capture and link the object effectively.[17] Third, despite layering of index and categories, the system is relatively rigid since all subsequent categories must be fit within the initial domain of categories (more on this in next section).

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[14] For a nice overview of the place of Digests and Reporters in the legal information scheme see (Wren and Wren, 1986: 10-19).

[15] See (Berring, 1986: 32) for more complete description.

[16] See (Berring ,1986:34-5) for detailed descriptions of the four essential problems.

[17] Appropriate to the already existing structure and understandings of cases within that structure.

Finally, there is subjectivity and defining power in the actions of editors, they make decisions about what matters, and how it matters, in each case opinion, and those decisions are reflected in case indexing.

> Because of the purposive nature of the editorial process, the interpretive range of the West editors was bounded by the intellectual universe of the Digest. Subtle shifts and deflections in the attitudes and language of judges under pressure from new social or legal forces were treated exactly like idiosyncrasy and anomaly. Thus, the greatest strength of the Digest System - its centripetal force, its 'normalizing' will to orthodoxy - was also its greatest weakness. (Berring, 1986: 37)

3. The Power of Indexing and Categorization

Categorization is a key information management practice, one which has also been critically examined by scholars of politics and law. Categorization is the explicit identification or assignment of attributes to data objects to facilitate meaningful organization. Attributes provide domains of meaning to those objects and shape how they may be used and interpreted. Organization schemes are predicated on the assignment of attributes and correspond to their presence or absence.

Scholars have shed light on the power of attribute assignment and categorization in a variety of contexts, several are drawn upon here. Giovanni Sartori presents one of the more noted efforts with his exploration of conceptual stretching and transformation in comparative politics. Sartori's work rested on an unproblematic notion of categories and attribute assignment (Sartori, 1970). To Sartori the lines between categories[18] were clear, attributes were relatively straightforward data object characteristics, or at least readily identifiable similarities. Occasionally a category or concept would prove too tight to

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[18] In comparative politics categorization is a well used method for organizing understandings of individual nation states and their different governments and governing systems. Typologies are a significant part of the comparative activity.

encompass a new object or collection of objects, the category's intension[19] might be altered to increase its extension[20] and capture the wayward objects. Digests (i.e. West's and others) represent a classic categorization scheme like that with which Sartori worked, where places are always found for cases, or rather cases are edited and interpreted to fit.

Core criticisms (e.g. Lakoff, 1987) attack this normalization, destabilizing the notion of traditional categorization schemes. Such schemes are considered conservative and truncated representations of the true complexity of data objects, and that they are practices and systems which lull users by providing structure and expectations. The ability to define domain boundaries and associated data object attributes is surely constrained by a class of "hard cases" which either fit no existing category, or have multiple interpretations with respect to applicable attributes. While careful not to dismiss the utility or importance of categorization to many information intensive activities, scholars like Lakoff have suggested that categorization is an inexact practice, yet one with significant implications for how objects are known and used, and by association the play of actions which result from that knowledge.

In Collier and Mahon's revisitation of Sartori's work (Collier and Mahon, 1993) they explain that scholars critical of categorization, including Lakoff, were hardly discounting categorizations, but rather wanted the political and contingent nature of categories more explicitly examined. Duncan Kennedy's examination of Blackstone's Commentaries focused on the contingency of categorization. Inherent in efforts to distill the sense of the common law were decisions based on ideologies and values which foreclosed particular results (Kennedy, 1979). Kennedy, as a point man for the critical legal studies movement, saw the contingency of categorizations and supporting characters

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[19] From Sartori (1970), but also now general knowledge in information science: Intension is the attribute profile, or definitive characteristics, used to delimit data objects.

[20] Extension is the actual range of objects in the collection identified according to the defined characteristics of intension. Note that they are inversely related, the less defined the intension, the greater the extension (no. of cases hit), the more defined the search profile (i.e. intension) the smaller the extension.

like doctrine as directly connected to the political task of legitimation. Blackstone's treatise was an interpretive snapshot of the common law, it was an abstracted snapshot. The method of abstraction effectively codified the notions of a particular social context, one heavily influenced by existing law and legal culture. Blackstone's work legitimated the legal status quo of England writes Kennedy, and the doctrinal categorizations represented that condition while facilitating legal development in particular directions (Kennedy, 1979: 211).

From an early point in the development of legal information systems the machines (considering Commentaries providing an intellectual model for the common law's structure) attached attributes to cases by identifying and focusing on particular characteristics. Sometimes these are objectively observed, or interpreted legal and factual patterns upon which many agree. At other times however the attributes are less structured, and must be cobbled together by a variety of characteristics or interpretive acts.

Richard Delgado picked up this line of attack, focusing upon the contents of the categorization scheme, and connecting it to the range of acceptable conceptualizations in law. Delgado acknowledges the power of categorization, and its comforting, and perhaps obfuscating, influences on users of legal information. Users feel good when confronted by well entrenched information systems of their professions, they satisfy needs that users do not recognize as being partially constituted by the systems they query.

> Existing classification systems serve their intended purpose admirably: They enable researchers to find helpful cases, articles, and books. Their power is instrumental; once the researcher knows what he or she is looking for, the classification systems enable him or her to find it. Yet, at the same time, the very search for authority, precedent, and hierarchy in cases and statutes can create the false impression that law is exact and deterministic. (Delgado and Stefancic, 1989: 217)

But not all users are made comfortable, especially those that are either themselves, or counsel for, individuals or groups whose potential legal claims are silenced by current categorization schemes. Information systems resist rapid change, and thus legal work

grounded on them is slow to move onto new conceptual ground, change in both is incremental. Delgado decries this for its conservative influences on law's ability to address novel social and political conditions, not to mention new actors in those scenes.

> The indexing systems may not have developed a category for the issue being researched, or having invented one, have failed to enter a key item into the database selected by the researcher, thus rendering the system useless. The systems function rather like molecular biology's double helix: They replicate preexisting ideas, thoughts, and approaches. Within the bounds of the three systems, moderate, incremental reform remains quite possible, but the systems make foundational, transformative innovation difficult. (Delgado and Stefancic, 1989: 217)

It makes sense that categorization will enable particular notions and interpretations while disabling others. Delgado probes deeper by examining the listings in legal information indices around the heading of civil rights, his efforts dovetail with other scholars who attack standard categorization schemes.[21] Using concepts or phrases which are meaningful in certain discourses of contemporary civil rights Delgado explores how the West Dicennial Digest deals incorporates and indexes on them. The results are probably more interesting for what they do not contain rather than what they do.

> The Decennial Digest contains entries on slums and miscegenation. To find cases on ghettos, one must look in the Descriptive Word Index under slums, which refers the searcher to public improvements under the topic municipal corporations. Another index contains an entry labeled, simply, races. None of the major indexes contains entries for legitimation, false consciousness, or many other themes of the "new" or critical race-remedies scholarship. Indeed, a researcher who confined himself or herself to the sources listed under standard civil rights headings would be unlikely to come in contact with these ideas, much less invest them on his or her own. (Delgado and Stefancic, 1989: 219)

Delgado's claim seems substantiated, yet it would take more research to fully comprehend whether, and how, those missed areas are translated and incorporated in existing information systems. For instance, Delgado queried a hypothetical researcher, "what is the law around the notion of black women suing for job discrimination on the basis of their

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[21] See for example work by Derreck Bell and Kimberle Williams Crenshaw.

status as black women, not as a black who then happens to be in the class women, but as the singular entity?" Existing indices tend not to incorporate the concept of black women in the area of job discrimination, there is a history, and categorization, for employment discrimination on the basis of gender and race, but not a hybrid for law in the particular area of employment discrimination for black women.

> Because of the structure of the indexing systems, attorneys for Black women have filed suit under one category or the other, or sometimes both. Recently, critics have pointed out that under this approach, Black women will lose if the employer can show that it has a satisfactory record for hiring and promoting women generally (including White women) and similarly for hiring Blacks (including Black men). The employer will prevail even if it has been blatantly discriminatory against Black women because the legal classification schemes treat Black women like the most advantaged members of each group (White women and Black men, respectively), when they are probably the least advantaged. (Delgado and Stefancic, 1989: 220)

To see further treatment refer to work by Kimberle Crenshaw challenging anti-discrimination doctrine manifested in the authoritative sources and practices of American law.[22] In it she claims that there is no space for a more context sensitive discussion of employment, and other discrimination, under current categorization schemes. For such discussions to become authoritative, or at least to have an authoritative element manifested in case law and commentary, new spaces need to be opened up, new categories and interpretations developed, new indexing facilitated. Perhaps electronic legal databases and search engines will continue to shake the authority of categories and practices of law which re-affirm an informational status quo. In that world law's mandarin materials are reduced to documents in a text collection, it remains to be seen whether the knowledge representations, present and future, made possible by unstructured data collections changes what can be conceived of in law.

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[22] See (Kimberle Crenshaw, 1995).

C. Acquisition and Manipulation

After finding that a Lexis / Nexis search for compelling state interest within free exercise to be fraught with difficulties (i.e. many extraneous, or false positive, cases returned, and presence of many synonyms for compelling interests), and not likely to produce a precise enough data set, West's Digest system was used to capture the desired cases. Attempting to capture the case collection with Lexis / Nexis showed that doctrine is not easily quantifiable, that it is part and parcel of a collection of knowledge and practices around law's hard data, and that Lexis / Nexis was not indexed in such a way, nor was the doctrine manifested with enough textual regularity, to satisfactorily procure a doctrinal data set. The following explores how West's digest and reporters structure or alter conceptualizations of compelling interest doctrine through efforts to define, delimit, and identify case opinions with which to construct that data set.

To conduct that examination an information retrieval task is posed: define a search profile and identify the relevant cases which exhibit the compelling interests doctrine in free exercise cases. West or other editors did not categorize on the compelling interest doctrine, they did however categorize on religious freedom and liberties, representing the domain from which the collection was drawn. This injects a significant element of legal knowledge authority, but perhaps doctrine's relation to that authority, and the basis for asking questions about doctrine, needs to be incorporated.

To collect the doctrinal data set several paradigmatic cases were chosen, defined authoritatively in commentary and texts[23] of constitutional law, for free exercise / compelling state interests at the Supreme Court (e.g., Wisconsin v. Yoder, 406 U.S. 205 (1972), Thomas v. Review Board , Indiana Employment Security Division, 450 U.S. 707 (1981), U. S. v. Lee, 435 U.S. 252 (1982)). Each case was looked up each in the relevant West Supreme Court Reporter, headnotes examined, and the most relevant description and

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[23] I acquired these largely from two texts: (Epstein and Walker, 1995; Gaunter, 1985)

Key Number[24] for the compelling state interest balancing test chosen.[25] Using the West Decennial Digests, those case citations and descriptions in Key Number 84 from 1963 to present were identified and catalogued. The data range started in 1963 because Sherbert v. Verner, 374 U.S. 398 (1963), marks the Supreme Court's inaugural use of compelling state interest in deciding free exercise cases.[26] More contemporarily, cases that would otherwise have been valid due to the presence of doctrinal markers, but concerned the application of the Religious Freedom Restoration Act (Public Law No. 103-141, 107 Stat. 1488) rather than a balance between a constitutional right and a state's interest, were omitted from the doctrinal space.[27] Each citation for Supreme Court and federal courts of appeal cases was recorded for those digest case descriptions which explicitly used, or implied the use of, a balancing test between individual religious exercise and the interests of the state.

Using Westlaw[28] each case corresponding to the recorded citations was scanned for a final determination as to whether compelling interests (or synonym) were applied, and tagged for whether the policy was upheld or not. West supplied case synopses and text passages around key search terms and phrases like "compelling state interest" or "free

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[24] West indexes cases by descriptive characteristics and areas of law, the key system assigns reference numbers to each produced category/ description.

[25] The West Key number was 84, Religious liberty and freedom of conscience, with a variety of subsections, (1) . . . (14).

[26] Interestingly, Sherbert was under key number 274, subsequent compelling state interest and free exercise cases are under key number 84.

[27] The Religious Freedom Restoration Act (RFRA) of 1993 (Public Law No. 103-141, 107 Stat. 1488), in fact, creates its own doctrinal space, one certainly related to the free exercise / Compelling State Interest, but distinct because it is statutory AND it exists in reaction to the jurisprudence of free exercise / Compelling State Interest. Cases from the Supreme Court were cut off with Smith in 1990, there were some circuit court of appeals cases which continued to use the balancing test after that, hence my examination of cases up through the present. For the most part however, Smith and RFRA provides an endpoint to the data set collection.

[28] This was merely automation of a manual task, roughly equitable to finding the opinion in a hard bound reporter. The only distinction that might imply substantive improvement on the manual process would be the scanning for search terms, again I suggest it is an improvement of style rather than form, and that doing so does not foul the analysis of traditional hard bound machines.

exercise" were examined to ascertain whether the doctrine was utilized, and determine who won and lost by the title, opinion, and disposition fields. Prisoner cases were also tagged because free exercise jurisprudence for prisoners took an explicit step away from compelling state interest, instead adopting a "legitimate peneological interest" standard (pseudo rational basis test) against which to weigh a prisoners religious rights.[29] Cases prior to that change in treatment are simply included with the basic subsets defined on disposition.

Due to the use of doctrinal synonyms (e.g. "significant government interest," "compelling social need") and the complex and varied structure of judicial opinions and the mixing of dicta and ratio decidendi often considerable portions of text had to be processed, though with proximity locators and a relatively robust notion of what constituted doctrinal signifiers the task was streamlined somewhat. This final list[30] is the defined data set, next step was collection. Using Lexis / Nexis Lexsee command and download service cases were easily located and retrieved, storing them in an interim database to be prepared for InQuery analysis.

Like full text Lexis / Nexis the West hardbound digest and reporter system did not support a straightforward definition and identification of the relevant cases. West Digests are indexed by subject areas, with ever decreasing levels of abstraction in each subject area. Compelling interests in free exercise law is not manifested as one of those levels however, existing instead within another subject area or spread across two or more depending upon the characteristics of the cases and how they intersect West's categorization scheme.

By utilizing expert knowledge which defined paradigmatic cases of compelling interests in free exercise it was possible to locate an area in the digests where the desired

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[29] O'Lone v. Estate of Shabazz ,482 U.W. 342 (1987), and Turner v. Safley, 482 U.S. 78 (1987) established the less stringent reasonableness standard for state interests. free exercise claims by inmates could be abridged by less than compelling interests, those deemed reasonable given the exigencies of prison administration.

[30] See Appendix B for data set case list.

cases reside. West's inclusion of headnotes and keynumbers act as identifiers and pointers, thus the paradigmatic cases pointed back to the digest categories where similar cases could be found. West editors make determinations about what constitutes similarities, levels of sameness, and conversely attributes of exclusion and category re-assignment. At that point however the researcher had to manually process the digest entries, screening for free exercise first, then looking for signs of a balancing of interests which either explicitly mentioned compelling interests or implied their incorporation in the ratio of the case. This injected significant influence from second hand knowledge and the default bias of expertise in the selecting possible cases for the data set. Cases identified still had to be examined however to determine whether in fact the compelling interest doctrine, or synonym, was present and part of the decisional mix.

Doctrine's sense and importance seemed undercut by being excluded from subject area categorization in West. One could also argue that since the compelling interest cases, and their immediate doctrinal relatives, resided within one category (i.e. Religious Liberty) that West in fact help re-affirm doctrine's meaning, or at least keep cases to which it has been attributed hung together. Like Lexis / Nexis however meaning of the doctrine pre-dated these systems managing case opinions, and the existence of that doctrine was not specifically part of their organizational scheme, thus, like Lexis / Nexis, compelling interest doctrine operates below the level of its primary functions.

What the experience with Lexis / Nexis and West showed more than anything was that doctrine exists at least as much in the minds of professionals, practitioners, and scholars of law, as in the hard data of law as a quasi-physical component. These actors are often tapped (or it is part of their occupations) to either apply, or argue against, or examine a context doctrinally. Both Lexis / Nexis and West digest and reporters were challenged to capture a data set which reasonably could represent the target doctrine without heavy editing and tweaking by system users. While attempting to stand as far removed from the process of searching and retrieval, to allow search profiles to take the place of

interactive involvement of knowledge experts, it was obvious that compelling interests needed knowledge experts to give it life, or rather, that law needs structures like doctrine to allow space for contests of interpretation and application of law .

CHAPTER VII

INQUERY

A. Introduction

InQuery[1] is the final information machine employed and examined in Doctrine as Data and is the culmination of a constructed story. That story provided an opportunity to examine practices of case opinion organization and access in several information machines which ultimately help shape conceptualizations of doctrine and cases. Previous chapters described full-text and hard bound information systems, Lexis / Nexis and West digest and reporters respectively, and how each was used to collect a data set defined by the compelling state interest doctrine in free exercise law. Efforts to define, discover, and acquire cases as data showed that doctrine is sustained in knowledge bases around law as much or more so than in the textual content of case opinions themselves. Or more to the point, it is sustained by traditions of making sense of cases, by the authors of case decisions as well as their interpreters, implementers, subjects, and observers. Stipulating that much of doctrine's meaning comes from expert knowledge and practices around case law, compelling interest doctrine is still however affixed to case opinions.

Doctrine as Data was designed to explore the conceptual domain of compelling state interest doctrine in free exercise cases in federal circuit courts of appeal and Supreme Court. That exploration meant subjecting a collection of case opinions tied together by that doctrine (i.e. as a clump) to InQuery analysis in search of coherency[2] beyond that attributed

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[1] InQuery is a probabilistic inference search engine designed to index, manage, and provide access to large document collections. InQuery is a product of the Center for Intelligent Information Retrieval (CIIR) at the University of Massachusetts, Amherst.

[2] Coherency is predetermined to a degree as authoritative notions of doctrine and cases were used to define and construct the corpus (i.e., supreme court and federal circuit courts of appeal, focused around the First Amendment and its protections of religious free exercise, operational in particular period (1963-present)). Additionally, the language of a balancing test will be present throughout as it was a key search profile characteristic in selecting cases for the data set . That is a wide conceptual net however, and InQuery identifies all concepts, if there are patterns or occurrences beyond those "rigged" for purposes of set

by legal scholars and practitioners.[3] InQuery identifies concepts and their occurrence and co-occurrence frequencies across a corpus of documents. It was hoped InQuery could be used to determine whether doctrine's presence, attributed to a clump of case opinions, correlated with concept occurrences and co-occurrences between those cases where the state's interests prevailed and those where individual claims triumphed. It was hypothesized that for compelling interest doctrine to be coherent, the interests or at least some set of standards where those interests were met or satisfied, ought to be textually present in cases were individual claims were secondary to official policy. Conversely, in the other set, there should be some patterns of text which signifies how individual claims supersede those interests, and that signification might be present across the stretch of the collection. Compelling interests were identified as determinative[4] in the disposition of target cases using West digests and reporters and Lexis / Nexis, it was posited that if the doctrine mattered to the structure and content of those case texts, and by association their represented decisions, then there would be some conceptual distinctions (i.e. doctrinal coherency) between the two subsets. This was posed in relation to critical, or realist inspired, approaches to case law and its structures doctrine, reasoning, and precedent. If these critics were right, there would be little coherency to doctrine, InQuery seemed to provide a way to test this empirically.

Such an endeavor however proved too ambitious and relied on an oversimplified notion of the relationship between doctrine and cases. Chapters V and VI described search and retrieval experiences which challenged the original or robust objective of this project,

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definition and collection, we may find them with InQuery.

[3]Clearly the definition of the data set, or collection of cases, relied on expert knowledge, and the application of that knowledge in the determination of what should be in the collection and what should not. That knowledge is part and parcel of a community of individuals, situated in and around legal institutions and the research thereof.

[4] Notions of ratio decidendi are inherently tied to interpretive communities around case law, sometimes they are clearly identified in the case text themselves, at other instances the decisional linchpin less centrally identified and agreed upon. The process of identifying when a compelling interest was determinative, at least partially, is an interpretive act quite often.

and showed instead that doctrine is hard to pinpoint textually and assign to a clump of data objects, yet that is one of the primary traditions around doctrine in legal study and political science (see Chapter VIII), to speak of doctrine through cases. Those experiences exposed doctrine's other side, as logic or parameter which allows for conceptualizations of doctrinal clumps of cases, but is also flexible enough so as to provide space for interpretive or rhetorical politics in and around case law. Cases are also very complex data objects. Case texts are some of the most difficult to comprehend, with true understanding held out by knowledge experts and their traditions of reading and making sense of them. Knowledge experts are the gatekeepers to cases, or at least until very recently have been, and part of their function has been to show the rest of us how to understand cases. No text's meaning is merely the product of word definitions and the rules of grammar, contexts of learning, presentation, and interpretation all matter significantly, but when it comes to case law, the latter take on far greater importance. With so much riding on contextual specific interpretation, and given the relative complexity of data objects like cases, InQuery's use on them becomes problematic. While InQuery analysis of the cases labeled as doctrinal (i.e., as a clump) is still pursued, this project focuses on the manner information tools and practices influence notions of doctrine and cases as data.

In the early days of the computer era it was suggested that electronic data processing could be appropriated to study law and judicial decisions (Lovenger, 1963). Computers make it possible to explore the terms and phrases which appear in texts, to map them, to probe their relationships within substantive groups of case texts. InQuery presents indexing and access practices which treat documents as textual streams of parts of speech (i.e. nounphrases, terms, verbs, etc.), with little distinguishing between contextually significant sections of text (e.g. ratio, dicta, dissent). InQuery indexes documents on concepts (i.e. nounphrases) and association relationships between them, relying on practices which identify concepts in a corpus, their occurrence frequencies,[5] and

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5 See below for a discussion of occurrence frequency and the proffered significance of highly

co-occurrence associations between them. A picture or profile of the document collection can be produced from them, showing the most important concepts (i.e., nodes with high occurrence frequency) and their most significant neighbors (i.e., co-occurrence associations). The following exposes these practices which make that profile possible.

B. Use / Practice Approach to Conceptual Content

Doctrine as Data was designed to augment the study of judicial product by treating doctrine, and the case opinions through which it operates, as a central part of legal discourse (White, 1990; Smith, 1994; Davies, 1996; Smith, 1995) where conceptual contests (Connolly, 1974) and affirmations of law's coherency take place. Scholars (Gordon, 1984; Kennedy, 1979; Kerruesh, 1991; Fitzpatrick, 1992; Smith, 1995; Barkan, 1987) following the realist tradition see doctrine as indeterminate, window dressing placed on case opinions by judges and commentators seeking to rationalize decisions and situate them in established traditions of interpretation. Coherency said conferring from doctrine in legal discourse, especially that which constitutes the production and interpretation of case opinions and decisions, is contrived, or worse, obfuscating the real reasons decisions are made (e.g. behavioral, political, or otherwise sociological). That said however, doctrine still structures meaning for case opinions, doctrine is still part of legal education and scholarship, and ultimately doctrine is part of practices for making sense of case opinions.

Compelling state interest doctrine in free exercise of religion may be said to structure expectations and relations framing disputes, as a parameter or logic enabling domains for winners and losers in contests of individual faith and police power.[6] At the very least doctrine partially structures discussion and commentary swirling around those contests. As testimony to compelling interest doctrine and its enduring role in politics,

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occurring concepts to the information content of a document collection.

[6]A constitutive assertion that law generally, and legal knowledge structures like doctrine specifically, take shape in a wide range of social and political contexts. For more discussion See Brigham (1996)

Congress is debating another attempt to reinvigorate the compelling interest standard, killed by the Supreme Court in Smith in 1990, in the Religious Liberty Protection Act (H.R. 1691) of 1999.[7] Compelling interests in the domain of religious freedom is still being constituted, exemplifying the reflexive nature of the relationship between law's authority and law's social reality.

Karl Llywellen and the realists established a critique of formalism and doctrine (See Chapter 2), and opened up an analytical door into the examination of cases and the meaningful use of words therein. Karl Llywellen's oft cited Bramble Bush takes a skeptical view of doctrine in a discussion of judicial flexibility within a framework of legalism and disputes. It is within disputes, subject to legalism's structuring power, where doctrine is most pronounced. Llewellyn and other realists (e.g., Frank 1935; 1949) used "doctrine" to refer to practices like "precedent" and "stare decisis," overarching concepts which describe, and are said to shape, judicial behavior in formalist or traditional models. Rules were used by Llewellyn and others to describe more specific knowledge structures, such as those this project calls doctrinal, narrower abstractions applied to the processing and sense-making around cases in particular areas of law. This distinction can be flattened somewhat by suggesting that doctrine exists as a subset of a general class of legal rules. These rules may include significant abstractions or practices like precedent or specific constructs like the strict scrutiny balancing test or its compelling interest component. These scholars, rather than discounting the significance of all such rules, suggested these abstractions provided screens, that formal constructs and practices were structures through which politics and ideology were made legitimate and active. The case system is the data in which that legitimation occurs, Llewellyn turned his energies to making sense of those objects.

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7 For a more detailed history of compelling interests in Free Exercise, and the subsequent efforts of Congress to contravene the Smith decision, see Chapter 3.

Llewellyn's discussion of the case system (Llewellyn, 1930:25-69) focuses on the practices of making sense of the language of appellate opinions, and how to make assessments of the resulting law. In order to grasp the meaning of a case you must read it knowledgeably (Llewellyn, 1930: 41), and to do that the reader must contextually know the words, not simply adhere to an empirically positive knowledge of their meaning. Contextual knowledge for Llewellyn[8] is an understanding based on word use and interrelationships, "the life of words is in the using of them, in the wide network of their long associations" (Llewellyn, 1930: 41). Certainly some associations are positivist, sign - signifier relationships, established through traditions of use. It is some of these associations, across a body of free exercise case law, that are explored with InQuery, to probe their actual use, and perhaps tease out some meaningful relationships for that body beyond those already attributed to it.[9]

Socio-legal study of law and language (Conley and O'Barr, 1990; White, 1990; Fish, 1980; Constable, 1998) has largely focused on the manner in which legal language structures particular understandings and contexts, how law is interpreted, and ultimately how it is applied and made meaningful through social action. The role of words, grammars, and concepts is important in that work, with concepts being central to InQuery's use here. Concepts are generally described as ideas and notions meaningfully associated with particular authoritative acts and proclamations of actors like judges, referred to with words or strings thereof (White, 1990: Ch. 2; Brigham, 1978: 9; Pitkin, 1972: 60-65).

JB White's work (White, 1990: 25-31) critically examines the traditional use of the term "concepts" and puts forth a more use or practice oriented view. White takes on the notion that concepts are fixed packages of meaning for universal, or even domain specific,

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8 The use of the term "contextual knowledge" is variable, that is, it has several proffered meanings depending upon one's definition and scope of context. For the particular discussion of Llewellyn's the context was not only a textual one, but also a larger socio-institutional one.

9 Such attribution would largely be the product of knowledge experts in specific areas of constitutional law and appellate court behavior / product.

ideas, and that it is merely the surface froth of language which confuse meaning; "concepts are not words; they are the internal or intellectual phenomena that words are thought to label, as markers, or towards which words are thought to point" (White, 1990: 29). This returns us to old positivist notions of language he argues, suggesting that words are signs or Platonic ideals which exist only to be articulated through the fallible contexts of reality and human expression. White posits instead that words are all we have, and that the meaning for those words is the product of interpretive acts by individuals situated in social contexts. Not that meaning is utterly open to political argument, or force of rhetoric, but rather that contexts and tradition shape domains of sense and nonsense in language, and concepts are meanings associated with those words and phrases in context.

John Brigham's Constitutional Language (Brigham, 1978) was an early effort at refocusing scholarly attention on the institutional language practices which make law meaningful. Brigham studied concepts which were the product of a specific language for constitutional discourse in the Supreme Court. That language is defined by the grammars and subsequent word use practices which shape notions of reasonable and unreasonable in constitutional utterances. Perhaps relationships between concepts, or words in context or practice, within a doctrinal space or legal discourse could be explored for their role in providing domains of the sensible for the texts of appellate decisions.

Hanah Pitkin, in her writing on Wittgenstein and Justice (Pitkin, 1972), appropriated the work of Paul Ziff (Ziff, 1960) to explore the way language, and more importantly, words become meaningful in law, and ultimately how law itself then takes shape. Like White, Ziff argued that words become meaningful by their use, rather than some positivist or empiricist notion that words are fixed signifiers for static meanings. "Use" is a broad notion, it could be the use of words in dialog, in commentary, in variable social contexts, in the petitions and claims of interest groups existing in those contexts, or for this project, in the production and presentation of case opinions of the highest federal appellate courts.

The meaning of words or phrases is dependent upon their position in a pattern of word use under the constitutive umbrella of language and grammars, that is, "meaning is determined by the word's distribution in language, the linguistic environment in which it occurs" (Pitkin on Ziff, 1972: 11). Pitkin argues that the meaning of a word depends on "the set of other words that can also normally occur in its position in those expressions," and "the set of expressions in which it normally occurs" (Pitkin, 1972: 11). InQuery presents tools and practices with which to explore word use, and the patterns and associations with other expressions. While attributions of meaning are not really sought with InQuery, recognizing that word use relationships are only a small part of the derivation and sustaining of meaning for cases, some of the patterns and associations uncovered with it may be useful to understanding cases and doctrine's assigned meaning.

C. Occurrence Frequency and Co-Occurrence Associations

Most computer information retrieval systems are designed to manage the storage and retrieval of documents, the data objects consisting of all forms of alpha numeric text and figures. Predominantly these systems treat document collections as streams of delimited text documents, with each document concatenated with its immediate neighbors in no special order, only distinguished by a few control characters to identify that document (e.g. #DOC. 001) for indexing and separation (e.g. #DOCBEGIN, #DOCEND). Storage of the raw documents can be rather simple, a list of objects, a stack, a pile even, so long as the system has a robust mechanism for locating relevant documents when user queries are performed. The key is the indexing scheme which provides access to documents. Information retrieval systems like full text Lexis / Nexis or probabilistic inference InQuery treat the documents as relatively unstructured collections of text objects. These objects may simply be seen as alphanumeric strings to be indexed universally, as in Lexis / Nexis, or

they may be parsed for parts of speech (e.g., noun, verb, nounphrase, term, etc.) which will help structure the indexing and search / retrieval processes in systems like InQuery.

InQuery employs a sophisticated indexing scheme which distills information representations from documents based on the conceptual content of each document. These systems identify parts of speech in a document to make assessments about the information content of that document. There are some parts of speech in textual discourse which are less important to the information content of the documents in a collection, depending of course on the domain of that discourse (e.g., law, business, medicine). Scholarship in information retrieval suggests however that in domain specific collections that parts of speech known as nounphrases are most significant to conveying the information content of a document collection, and as a precondition, of each document in that collection.[10] Nounphrases are considered concepts[11] in this scholarship, and are constituted by either single nouns or a string of nouns, often connected by other parts of speech. InQuery identifies and utilizes nounphrases to index document collections, and support enhanced document retrieval.

Collections of related documents inevitably will have phrases which occur more frequently than others, in fact most phrases appear only once. While those appearing once are certainly meaningful to the information content of the document collection, they are less significant than those most frequently occurring. Highly occurring phrases emphasize concepts repeatedly, their use signifies importance, weighted for readers and future writers alike. The conceptual content of the collection is a function of both the use and patterns of

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10 See (Croft and Turtle, 1991).

11 Nounphrases are considered the key concepts in a document collection, indicating or conveying the information content of that collection through the most highly occurring nounphrases. This rests on an empiricist notion of meaning to a degree, but is also linked to a use oriented derivation of meaning. Yes, nounphrases, or concepts, have meaning unto themselves, for without such meaningful attributes they would be unintelligible out of some interpretive context. Simply, words have to have some base elements of meaning on their own, they may change radically depending upon the context of use and interpretation, but there must be some positive or empirical element of meaning to each word. That said, the relationships between words is the key context for fine tuning and shaping meaning.

these phrases, as well as an empirically positive element of meaning which is derived from traditions of that phrase's use in a variety of contexts. Some of these phrases however are so common as to essentially undercut their contribution to collection meaning. For instance the nounphrases "court," and "law" in this project's collection would so frequently occur as to render them somewhat meaningless. Comparisons of concept occurrence frequencies between the subdivisions of the document collection (i.e., compelling interest cases where state's interest prevailed, and those where individual claims triumphed) may shed light on the correlation of doctrine to distinctions between them.

Occurrence frequencies present one picture of the conceptual content of document collections, that picture can be expanded with the production of co-occurrence statistics. Co-occurrences, or collocations,[12] are relationships amongst terms and phrases in a document collection. The relationships are defined by the occurrence of two or more terms and/or phrases in close proximity (i.e. within same paragraph typically), the more often it happens the greater the co-occurrence frequency value. Socio-linguists began paying attention to co-occurrences or pragmatic associations (Bowers, 1989: 50; Firth, 1957: 194-5) because they suspected that meaning of words and phrases was partially a function of their associations through use. Associational meaning of terms and phrases is derived from the, "habitual, and therefore expected, contiguity with other objects" (Bowers, 1989: 50). This is distinct from meaning which situates the object in a socio-cultural domain of contextual and interpretive variables, as well as empiricist or positive meanings. Associational meaning represents a narrow slice, it is "a measure of expectation in the actual combination of words over quite short stretches - phrases, sentences, and contiguous sentences" (Bowers, 1989: 75). Co-occurrences show the lexical environment of a text, the patterns in which terms and phrases occur in proximity to each other. Co-occurrence

12 See (Firth, 1957: chapter 15) discussion about "modes of meaning" for texts.

statistics represent syntactical relations, the intermingling "chains" of signification (Lacan, 1977; de Saussure,1966), deployed and recast for assigning and proffering meaning.

D. Information Retrieval and InQuery

Information retrieval systems take on a simple task, store data objects meaningfully, supply a query language and interface for users to make requests of the system, and satisfy those queries as effectively as possible. That task may be straightforward, but due to variability in data objects, different means of access, and distinct knowledge representations for data objects and queries alike, implementing an effective information retrieval system can be challenging.

InQuery is an information retrieval system based on the probabilistic inference network (Turtle, 1995). That is, InQuery satisfies queries by returning documents which are inferred to be probably relevant to a user's query. InQuery implements a probability ranking system in order to weight documents relative to queries.

> The model estimates the probability of relevance of a text to the query, on the basis of the statistical distribution of terms in relevant and non-relevant text, given an uncertainty associated with the representation of both the source text and the information need, as well as the relevance relationship between them. (Zeleznikow and Hunter, 1994: 38)

Relationships are inferred between documents in a database and user queries by comparing the information representations of documents and queries. The stronger the inference, i.e. the more similar the information representations, the higher the relevancy ranking for a document, and the more likely it is to be on point for that particular query.

Relevancy is based on textual characteristics of the query and document. The terms and phrases of the query, and their most highly associated phrases, are used to create a "profile" or knowledge representation of a user's information request. That representation is compared with those of documents in the collection. A query can only be satisfied by documents possessing evidence or data which produce an information representation

similar to the query's information representation. Evidence is typically based on the statistical representations of occurrences and associations of phrases within documents.

To increase the relevancy of documents retrieved from a query on a text collection (i.e. to achieve greater consonance between query information representation and document information representation) InQuery uses the InFinder associational thesaurus utility to expand the information representation of the user's query. Phrases and terms from the user's query are directly utilized to find documents having high occurrences of them, but documents that also have high occurrences of phrases which have been found to co-occur significantly with those in the query are often relevant to the user's information need. Since it is the product of the thesaurus building which provides access to the occurrence and co-occurrence frequency statistics the following will focus on InFinder, rather than InQuery's retrieval of documents.

InFinder constructs a thesaurus by going through every document sentence by sentence, recognizing phrases (i.e., concepts) and terms using parts of speech recognition taggers.[13] InFinder then inserts the phrases and terms in a dictionary, storing phrase and term identifiers in a table with their occurrence frequencies until a certain number of sentences is processed, or generally when a paragraph limit is encountered. At this limit, InFinder produces pairwise associations between all phrases and terms within that text window, determining co-occurrence frequencies by multiplying frequencies for each combination of phrase and term. The co-occurrence frequencies for each combination is then summed over the entire collection (Jing and Croft, 1994). The highest association frequencies are represented in the thesaurus as the relationships between given terms and phrases and phrases which have high co-occurrences with them.

The thesaurus is a list of all terms and phrases occurring in the document collection, each entry has a list of associated phrases, in order of decreasing co-occurrence frequency.

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13 Taggers are applications which use templates which model the structure of sentences and the patterns of word use. Parts of speech (i.e. nounphrases, verbs, etc.) are effectively identified using these tools.

InQuery utilizes the thesaurus to expand a query's information profile by looking up, and including in that profile, phrases which are highly associated with terms and phrases in that query. Documents returned will match to greater or lesser degree an information profile devised from terms and phrases from the original query and their associated phrases from the thesaurus.

E. The Process

1. Designs for InQuery Analysis

While InQuery poses great potential as a database and search engine for law's texts, this project was not so much interested in the document management and retrieval properties InQuery presented. Rather, the process used to build InQuery's thesaurus and the statistics which represent the actual term / phrase occurrences and associations in the text is of immediate interest. Occurrence frequency data shows those concepts which are arguably most significant to a collection's information content. Some of these highly occurring concepts can be treated as nodes for co-occurrence examination, as conceptual centers around which other concepts orbit, thus producing a picture of the lexical environment with the greatest informational weight (Hockey, 1980: 89-91). Co-occurrence statistics for doctrinal terms and phrases (e.g., compelling, state interests, overriding state interests, overriding government interests) provide a representation of the environment around key phrases, exposing the doctrinal markers most significant conceptual neighbors, and the text which may have the greatest doctrinal impact on readers and future writers alike.

By dividing the collection into cases where compelling interests were sustained, and those where state interests were found lacking in the face of individual claims, and then developing occurrence and co-occurrence frequency statistics for each group, it was hypothesized that those statistics could help expose doctrine's coherency, i.e., its correlation to those two groups. If doctrine really matters to the structure of cases in each

collection there should be some distinctions in the occurrences and associational relationships of key concepts across the two groups of cases where the doctrine of compelling interests was said to exhibit determinative influence. Coherency was originally suggested as an indicator for the presence of textual consistencies, and distinctions, which might lend weight to the notion that compelling interests were identifiable, or that there was a domain of referents which indicated the presence or absence of such interests.

The Center for Intelligent Information Retrieval at the University of Massachusetts made InQuery available for this project, and supplied technical support staff to help tailor InQuery and InFinder to satisfy the project's needs. CIIR was supplied with the original data files, the cases collected via Lexis / Nexis and West. The tagging of each case was used for the creation of several data files (see below). CIIR then built association thesauri for each and provide access to occurrence frequency and co-occurrence association statistics. CIIR provided occurrence frequency tables for each data file, they were accessed via an Internet interface, and could be imported into a database or spreadsheet or word processing environment on a local platform. To explore co-occurrence frequencies one had to interactively ask InQuery to provide a list, in order of decreasing frequency, of associated phrases for a given term or phrase. For instance, InQuery could be asked to provide the most highly associated phrases to "compelling," or "state interest" or any combination thereof.

The complete data set was comprised of 186 case opinions, 108 of which constitute the two primary sets investigated here.[14] Data set size presented an immediate question to CIIR staff: was it large enough to produce meaningful results? would the frequencies and associations be telling in a sample this size? CIIR staff raised concerns that there simply would be too few documents for statistical significance, for the idiosyncrasies of individual documents to wash out over the expanse of a collection. The larger the collection, the less

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14 The difference of 78 is the total of the prison cases after the doctrinal shift, from compelling interests to legitimate penological rationale (see Chapter 3 discussion).

impact any single document would have, thus if you had a document that repeated a phrase inordinately it would have relatively less weight in a large collection, and would not necessarily skew the results. This hurdle seemed crossed however when CHR realized how large case opinions can be, it is not so much the number of documents that matters as the number of words, and judges are typically quite wordy. This is not to say that only a few large documents would work, but over one hundred large documents seemed OK.

Each case text for the collection consisted of the majority opinion and the dissenting opinion if any existed. Dissents raised some further data object issues, most significantly would the presence of dissenting opinions pollute the analysis since dissents are not traditionally considered part of the "law" produced by cases? Would dissents in opinions that were placed in one group of cases, e.g. those where the state's interest prevailed, inject concepts and concept associations that ought not be included with that of the majority opinion? InQuery does not distinguish between parts of the data object, only where data objects begin and end, and the textual contents therein. Thus, dissenting opinion text is treated the same as majority opinion language in the production of occurrence and co-occurrence frequency statistics. A decision had to be made whether to edit out all dissents, which was not simple given that the intermediary database (i.e. Folio Views) did not make it easy to cut this portion of each case, and there were nearly 200 cases. While each case was selected on the basis of compelling interests being part of the decisional mix, they did not purport to show cases where those interests were the ratio exclusively. Therefore it was likely that dissents would address a range of issues in the majority opinion, sometimes tackling issues not explicitly presented in the majority opinion, arguing instead for a dramatically different path of reasoning and opinion. In other instances, dissenting judges will only choose one piece of the majority opinion to address, perhaps not even the ratio. Certainly, dissents were not always going to take on application of the compelling interest doctrine, thus it was decided that dissents could be left alone, they would effectively wash themselves out with their variability.

2. InQuery Analysis

To construct subsets for further processing, and allow for examination of conceptual patterns and relationships within logically distinct groups of opinions, some meta distinctions were applied to the opinions via tagging with some two state condition fields. During scanning and verification cases were tagged as either a "win" or "lose," corresponding to cases where state interests prevailed or were trumped by individual claims respectively. Cases were also tagged if they were a prison case, and those cases were further divided by a distinction between those occurring before and after 1987 and the doctrinal sea change in free exercise jurisprudence in prison cases (see Chapter III for discussion of this change in free exercise jurisprudence). The tagging produced six subsets of interest, several were combined to create 10 data files (see Appendix C) to be provided to CIIR for InFinder association thesaurus building.

In the original formulation of Doctrine as Data the objective was to see if there was doctrinal coherency in and between several of these subsets. The following analysis is based on InQuery's processing of file 8, representing all cases where compelling interests were present prevailing, and file 9, all those where free exercise claims were successful over official interests. That analysis is based on observation of patterns, similarities, and distinctions in concept occurrence frequencies and associations in each corpus. If there was something to the doctrine's influence on the cases in each file, beyond expert knowledge and interpretive traditions, it might show up at the level of words and phrases and their patterns and relationships.

a. Occurrence Frequencies

Appendix E displays a comparison of the relative occurrence frequencies of some of the most highly occurring concepts in files 8 and 9. InQuery produced occurrence frequency reports for each file, they have been sorted in order of decreasing occurrence

frequency, and a relative frequency measure for each concept was computed by dividing the concept occurrence frequency for each by the occurrence frequency of the most common nounphrase. See Appendix D for a representation of the two basic occurrence frequency reports, note that the reports are cut off well before the end, there are far too many concepts that occur infrequently (i.e. predominantly only once) and are less significant in this form of analysis.

After identifying stop words, nounphrases that are standard identifiers like "u.s.," "s.ct.," or "l.ed," highly occurring concepts were identified from each report and compared for relative occurrence frequency distinctions. Those concepts whose relative occurrence frequency values differed by more than a few percentage points across the two files are identified in Appendix E. Roughly the first 100 concepts[15] in the report for file 8 were identified in the report for file 9, differences in relative occurrence frequency were noted, some of which were interesting and are commented upon here. That comparative process was repeated in the reverse, findings are also described in Appendix E.

Highly occurring concepts in cases where individual claims trumped state or government interests (i.e. file 9) seem to generally have a greater relative weight than in cases where compelling interests exist (i.e. file 8). This is partially due to the fact that file 8 was much larger, and there were nearly 2000 more concepts encountered, therefore a relativity measure is going to be watered down more significantly. Conversely, since there are so many more cases there should be more occurrences per concept on average, thus mitigating somewhat the increased number of overall concepts. As a result, relative occurrence frequency distinctions of a few percentage points should be treated as interesting, but with less import that distinctions of 5% or more.

There is remarkable overlap between the two files, especially the highly occurring concepts, there are exceptions to be sure (e.g. the concept "life" is far more common in

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15 Choosing the first 100 concepts is probably overkill, after the first 50 or so the significance drops of considerably because the relative occurrence frequency distinctions become negligible.

cases where state interests were trumped), but generally there is some coherency to the collection's most significant concepts. Some of that is rigged, that is, some highly occurring concepts are "search terms" used to scan and determine whether the case ought included. Phrases like "free exercise" or "religion" or "interest" are expected to highly occur, though distinctions in their occurrence frequencies and co-occurrence patterns across the files may still be of interest.

In the set of cases where compelling interests did not exist there are some interesting results, the data set size and relativity issue discussed above notwithstanding. The phrases, "city," "children - child," "education," and "ordinances" indicate that local, municipal, and state policy are less likely to represent a compelling interest, especially when the free exercise "rights" of parents to educate children are concerned. Since many of the successful free exercise challenges were in the unemployment benefits area, the notion of "benefits" seemed interesting. Might it be expected that "benefits" occur differently across the files? However, "benefits" had essentially the same occurrence frequency in each file. There were certainly cases in the area of unemployment benefits where the states' interests prevailed, thus it is likely that the two sets essentially canceled each other out discursively. The other interesting distinction is perhaps more representative of an ideological quality to the writings of judges in those cases where individual rights triumphed over state interests. The phrases "beliefs," "rights," "freedom," and "life" were more prominent in those cases, indicating that opinion writers were employing a rhetorical arsenal designed to influence interpretation by readers. Judges relied on ideologically powerful concepts, providing strong rationales for defeating state interests, and likely sending signals to future challengers about how to constitute their own fights. Finally, the occurrence of "god" was quite humorous, again arguably serving a rhetorical purpose, that "god" is more present in the cases where individuals are victorious over the secular state.

Since the data set where state or government interests were compelling and thus prevailed was considerably larger than its counterpart, and since compelling interest have

been found to exist in all areas of relevant policy, save of course for explicit discrimination, there seemed to be less of note in file 8. Subject area distinctions which seemed evident in file 9 were not so in its counterpart, save for one noticeable pattern. The language of authority, of federal authority especially, seemed dominant. The phrases "government," "united states," "congress," "statute," and "purposes" all seem to indicate that where authoritative policy prevailed there was a predisposition to federal law, that interests were more likely to be found compelling when emanating from these sources. In addition, the relatively high occurrence frequency of "exemption" may indicate that judges are being rhetorically active, attempting to paint claims for free exercise as exceptions, as contrary to the default, as seeking special treatment from the norm, as deviant.

b. Co-Occurrence Associations

The production of co-occurrence associations to explore the influence of doctrine on two sets of related cases is experimental, representing a new way to view texts of federal appellate case opinions. It is clear that interpretive traditions of knowledge experts are still preeminent in assigning and ascertaining the meaning of case opinions, however the texts themselves, the words of decisions, the patterns of phrase use and associations have significance to those traditions. Without the texts, their is nothing upon which those communities can toil. Case readers are faced with text made meaningful in a variety of ways. As they encounter highly occurring phrases and their neighbors, patterns are associated, or incorporated, with expert supplied knowledge about those cases, and perhaps structure the production of future opinions.

i. Co-Occurrence Nodes - Highly Occurring Concepts

The highly occurring concepts identified by InFinder for the two primary files can be treated as nodes, as conceptual points around which other nounphrases orbit to varying degrees. From the top twenty most frequently occurring concepts returned for each file

several phrases were selected for comparison: "religion," "interest," "exercise," and "belief." Each was highly occurring in both files and is significant to the doctrinal profile, or information representation, originally proffered. These phrases are significant components of compelling interest discussions, they are indicators, thus it seemed useful to evaluate the lexical environments for each in the two files. Distinctions and similarities in co-occurrences between the two groups of cases tested here are noted and examined for their possible roles is sustaining, or undercutting, doctrinal coherency.

Co-occurrence statistics are produced for the given concepts from each file. Phrases which commonly co-occur with a given phrase across the two files are identified as they may show doctrinal or discursive coherency in a general sense. As expected however there are more co-occurrence distinctions than similarities between the files, and these are more interesting. Co-occurrence distinctions between the two files, relative to a single search phrase, may signify a correlation to doctrine and thus potential coherency, or a form of it nevertheless. This is speculative however, at best trends may be identified which approximate rough correlations between phrase co-occurrence distinctions and doctrine's argued presence. In addition, there are bound to be distinct phrase associations for each set which are idiosyncratic, that is, the product of wordy judges in particular cases, who repeat a phrase which is only really relevant to that particular case, but that weighs heavily when counting and associating is performed. Some of those idiosyncrasies will likely also be indicators of the substantive areas dealt with in each set of cases, the line between those which are really only central to one or a couple cases and those which are more general is difficult to ascertain without referring back to the original cases. Other phrases which are highly co-occurring are simply fortuitous stowaways, and are obviously not meaningful to the contextual meaning of the textual environment (i.e. like the word "while" co-occurring with "exercise").

Each subject phrase is treated as a conceptual node with a number of related (co-occurring) phrases, they are listed below sorted by decreasing co-occurrence frequency.

Co-occurring phrases, which are unique to that particular file are underlined. Comments will appear to the right of each associated phrase as appropriate. The following presents the top phrase co-occurrences for "religion," "interest," "exercise," and "belief" from those cases where state interest was compelling and prevailed, and those where individual claims trumped those interests:

ii. Co-Occurrence Nodes - User Defined

In addition to those concepts supplied by InFinder as highly occurring, and thus significant to the content of the collection, the key textual components of the doctrine were posed as co-occurrence nodes. InFinder was queried to provide highly co-occurring phrases for "compelling," and "state interest" from files 8 and 9.

The important finding here is that for each supplied query there is remarkable overlap, that is, there seems to be little distinction in co-occurrences across the two files. The textual environment for doctrinal phrases is nearly identical in cases where compelling interests existed and those where they did not. Does this then imply an inherent incoherency if there are no real distinctions across the files subject to compelling interest doctrine? Or rather, is the doctrine coherent, and the determinative element of the cases occurs elsewhere (i.e. away from compelling interest talk) in the decision? The answer lies between, the findings cannot sustain either conclusion, especially since the whole notion of coherency, and doctrine's essential identity, has been problematized at each step of this project. Nevertheless, there is some coherency to be sure, readers of compelling interest and free exercise cases will encounter certain highly occurring, and otherwise important, phrases and their most common neighbors repeatedly, this is likely to produce a sense of orderliness in the data being interpreted and consumed. Some of that orderliness will likely then accrue to the relationship between doctrine and those cases. The goal however is largely to expose the co-occurrences for further discussion and research. Appendix G contains a list of the most highly co-occurring phrases with the core doctrinal terms and

phrases (i.e. compelling and state interest). Note that co-occurring phrases unique to each file are underlined in Appendix G, there are not many of them however.

F. Conclusion

The attempt at automated Lexis / Nexis searches, and then the painstaking case by case examination using West's products, showed that the unstructured nature of case opinion texts and the complexity of legal language and reasoning, make it difficult to categorize some cases as representative of a particular doctrine. The meaning of cases and their language are contextually constituted by individual readers, there are of course domains, or communities, of interpretation structured by things like constitutional grammars (Brigham, 1978) and other expert or authoritative driven traditions of understanding and discourse (White, 1990; S. Fish, 1980).

Case opinions are complex data objects, thus knowledge structures which are partially constitutive of the meaning of those objects are likely tied to both the symbolic elements of those objects as well as interpretive communities around them, sustaining them. A document collection of doctor's notes on asthma (See Chapter 1) is not so interpretively wedded, the data objects are far simpler, thus knowledge derived from textual relationships across them is likely less tenuous. Recalling the asthma study and the use of InQuery described in Chapter 1, doctors were asked to provide key search terms which they felt would correlate to asthma attacks and exacerbations. Given the simplicity of doctor's notes, as compared to case opinions, it is relatively straightforward to capture the documents containing those search terms and the documents which are related to those terms through high co-occurrence frequencies. Case opinions are far different, the occurrence of key terms which may signify a doctrinal discussion can be easily mixed with occurrences which are in dicta, or in a dissent. We tried to look beyond this by suggesting that InQuery provided the chance to examine the text of a discourse, a doctrinal discourse, but that is a knowledgeable attribution by a researcher, and is not necessarily represented in

the documents effectively. Simply, doctors' notes are one thing, case opinions are quite clearly another.

Is there coherency to compelling interest doctrine? If so, can it be ascertained from the text of an opinion, or collection of them with tools like InQuery? The experiences of this project, in conjunction with existing views on doctrine and appellate cases, seem to undercut the latter, while the prior is shown to be as much a condition of interpretive communities as with cases themselves. While the data set of cases for this project was collected in such a way as to front load a certain amount of coherency (i.e., the presence of certain phrases), was there anything beyond that, or which correlated to their presence? Aside from search terms and stop words there is a remarkable amount of overlap in occurrence frequencies of the most significant phrases between the primary two sets of cases examined. Some of this is undoubtedly related to compelling interests doctrine, but there are likely other common features which cause certain concepts to appear readily. Repeated fact patterns, especially with respect to the types of issues being contested, or the policies being challenged may also be concept magnets, causing the overlap witnessed. Separating these parts of cases, or attributes represented therein, is probably not useful, since case meaning is a function of all of those things and the interpretive community giving them ultimate social (and specialized) meaning. The relationship between compelling interests in free exercise law is going to be connected to certain kinds of cases, dealing with most likely a relatively fixed, or incrementally changing, domain of subject areas.

There were also distinctions in occurrence frequencies, and some co-occurrence frequencies, for particular significant doctrinal phrases in each of the examined files. Distinctions also correlate to doctrine's presence. Doctrine's causality cannot be sustained on this alone, but it represents yet more correlation and thus arguments about causation and coherency can be furthered. InQuery unfortunately did not really uncover much beyond what was already known about compelling interests, there were some interesting

occurrence frequency distinctions that seemed to solidify understandings, but unlike the doctors and the asthma study there seems to be only incremental knowledge derivation, confined for instance to occurrence frequency distinctions for phrases "freedom" or "exemptions" which may give insight into the rhetorical directions of opinion writers.

What then can be gleaned from the InQuery examination of these case texts? What do InQuery's practices for organization and accessing data objects lend to understandings of cases and doctrine and the ways they become meaningful? If the use of InQuery had not been preceded by the experiences and findings from utilizing West's digest and reporters and Lexis / Nexis to define and collect a doctrinal case collection, then InQuery would have uncovered similar concerns via its treatment and organization of the data objects. Case opinions are complicated data objects, with contested meanings produced through complex interpretive functions performed by legal knowledge experts, as well as a raft of other interested parties. Since InQuery does not incorporate the more interpretive aspects of that function, and only really deals with the text as it appears, it shows just how significant knowledge experts are to understandings of cases. InQuery shows that cases are made up of a lot of text that could be dicta or ratio, but the only way to know is through knowledge experts. Doctrinal search terms might just have likely occurred in dicta as not, InQuery cannot distinguish between. What of doctrine as part of those understandings? InQuery shows that phrases which believed to be central to a particular doctrine are associated with a range of other concepts, some of which may help shape understandings of the basic domain in which that doctrine works, but just as many, if not more of them, show the idiosyncratic nature of case opinion writers.

And what of access to cases? Essentially InQuery was cut off before it could be used for document retrieval, as this investigation was largely interested in the tools InQuery uses to help retrieve documents most effectively. Indexing is predicated on the creation of occurrence and co-occurrence frequency data, those practices only reaffirmed notions that doctrine, while textually present to varying degrees, is as yet indeterminate in its influence

on those objects. In short, if coherency for such a knowledge structure as doctrine is sought, the lens applied must be wider than cases, it must include cases for sure, but it must focus on the manner they are incorporated and proffered in particular knowledge bases, how their meanings are arranged, and whether those meanings become real in the realm of judges and other social actors.

CHAPTER VIII

DOCTRINE, DATA, DISCOURSE

A. Introduction

Doctrine has been treated throughout this project as both a clump, or a collection of data objects, as well as a logic, where parameters of practice and interpretation are established. This chapter concludes that treatment by situating the use of doctrine as data, both as clump and logic, within traditions of scholarship around courts and law, and then in an examination of several of law's information machines.

Realist and formalist public law and socio-legal scholarship have divergent notions of doctrine, this project attempted to strike a middle ground. A formalist framework posits that doctrine structures basic case management and commentary techniques, and that it is important to how judges reason, decide, and write case opinions (Carter, 1994; Levi,1949). Doctrine as Data shied from such determinism, acknowledging that the realists[1] were convincing when they suggested doctrine could be fitted to a variety of outcomes, and that other factors in case disposition and rationalization which are not readily identifiable within formal constructs like precedent and doctrine are likely significant.

The following explores scholars' use of doctrine as a knowledge structure which helps provide sense to judicial decision making and opinion crafting,[2] as well as one subject to the constitutive influences of practices of legal information management and manipulation.[3] Doctrine is traditionally expressed relative to judicial opinions, thus opening

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[1] See K.N. Llewellyn (Llewellyn, 1960) for prototypical realist statement

[2] Doctrine, viewed discursively, helps shape a range of institutional actions, standards, legitimate motions and phrases which constitute a domain of possible outcomes. This is basically Smith's discursive theory of doctrine, see Smith (1994).

[3] Conceptualizations of legal forms have socially constitutive influences, shaping beliefs, relationships, expectations, and ultimately behavior pursuant to all those things (Brigham, 1996). Brigham also suggests that texts, e.g. opinions sustaining things like constitutional doctrine?, can be examined constitutively by studying the practices which make those texts meaningful to scholars, judges, others.

a space for treating federal appellate case texts as data manifesting doctrine.[4] Legal scholarship, as well as doctrinal and behavioral public law political science, use that data, and doctrine, in distinct ways. This project takes from all of them, and ultimately relies on work of sociolegal scholars who are renewing attention to law's institutional product (i.e. opinions) and practices making them meaningful in a variety of social contexts. Professional and intellectual traditions as well as information machines and practices represent several such contexts and have been the subject of this project's analytical attention.

B. Doctrine in the Primary Traditions of Analysis

1. Understandings of Doctrine and Texts

Scholars with formal and skeptical[5] understandings of doctrine exalt and dismiss it respectively. Doctrinal political science and legal scholarship attribute a logical consistency to doctrinal formulations, as part of the regular practices of applying rule to fact, and as determinative of case outcome, as well as shaping the way scholars understand and organize cases. Realist inspired criticisms of the fluid reasoning used to fit cases to pre-existing categories, as well as the lack of attention to contradictions or weaknesses in doctrinal readings of case opinions, cuts against such determinism. To the critics doctrine is considered largely indeterminate, viewed as rhetorical, legitimating, or at worst, obfuscating of the real influences in case disposition.

> The realists and more recent discourse theorists share a skepticism about the textual determinism urged by formalists, but the realists' reductionist tendency to discount almost entirely the role of ideas, logic, and language in shaping law blunted the critical edge of their work. The realist attempt to simply replace textual determinism

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[4] For an elaboration see (Berring, 1987: 36), "the doctrines of the law are built from findable pieces of hard data that traditionally have been expressed in the form of published judicial decisions. The point of the search is to locate the nugget of authority that is out there and use it in constructing one's argument" Berring (1994: 45).

[5] This formulation of different views of doctrine in scholarship is that of Smith (Smith, 1994).

> with psychological, sociological, and political forms of determinism altered the direction of analysis without fully displacing the lingering formalist faith in foundationalism as a basis of constitutional theory. (Carter and Gilliom, 1989: 18)

From formalism comes this sense that doctrine structures very basic case management and commentary techniques, and that it is important to how judges reason, decide, and write opinions. Realists suggested doctrine could be fitted to a variety of outcomes (Llewellyn, 1931) as a construct which, while clearly employed post hoc for organizational and pedagogical purposes, is also in part a delimiting force on what judges do in the first place. Doctrine unfolds through the articulation of opinion writers, as well as its application, or attribution, to those opinions by practitioners, information managers and scholars.

2. Doctrinal Scholarship - A Shared Tradition

Doctrinal study in political science follows the model of formalist legal scholarship and its attention to precedent, reasoning, and structures like dicta, ratio decidendi, and doctrine:

> A formal view implies that understanding doctrine involves extracting a correct doctrinal statement or formula from the cases and then working out the logical consequences of that formula for concrete controversies. If doctrine is understood in terms of its logical consequences, moreover, it presumably should be evaluated in similar terms. This approach to doctrine roughly describes the bulk of conventional constitutional scholarship. (Smith, 1994: 527)

In this view doctrine facilitates resolution of particular controversies in a logical, if abstracted, way. Clearly this tradition considers judicial opinions reflective of the act of judicial decision making and representing legal authority, opinions are data for investigations of both. Political science has been interested in reasoning expressed in opinions because that is where judicial politics lay exposed (Carter, 1994: 3). Doctrinal scholarship focuses on particular phrases which signify a decision making formula, or at least shape opinion crafting or categorization practices. Doctrinal scholarship adopts an

analytical framework relying on dividing the corpus of appellate cases into meaningful categories. The most likely candidates for analysis in public law political science are those areas in the domain of constitutional law. For works that examine a particular case, or sequence of cases, which demonstrate doctrinal development or devolution see: Shapiro, 1985; Levinson, 1985; Schuck and Smith, 1985; Alfange, 1983; Binion, 1983; Downs, 1985. This scholarship strives to unlock those processes, examining how reasoning and precedent are managed and presented, and often what the appropriate doctrinal path ought to have been.[6]

Doctrinal analysis treats constitutional doctrine as an abstraction for a collection of interrelated judicial practices which provide structure to the meaning of cases. Sometimes doctrinal phrases are explicitly used by judges in opinions, especially when a claim is raised articulating a particular doctrine. In this style of analysis however doctrine has its greatest influence in the authoritative indexing of cases and the commentary propagating notions like doctrinal traditions, departures, and coherence. "Clear and Present Danger," "Separate but Equal," "Intra Military Immunity," "Sovereign Immunity," "Plain View," "Collateral Consequences" are all doctrines created by judges and commentators, caught in an interpretive relationship that defines both how cases are treated judicially and analytically. While still practiced, doctrinal analysis and scholarship has waned steadily since its nadir in the 1950s, this sort of examination originates from strong doctrinal formulations and notions of reasoning and argument.

Philip Bobbit, in his work on different forms of Supreme Court argument expressed in opinions, posits that "doctrinal argument . . . asserts principles derived from precedent or from judicial or academic commentary on precedent" (Bobbit, 1982: 7). Bobbit divides Supreme Court argument into five essential types corresponding to formal activities under the umbrella of the so-called legal model.[7] First, historical arguments (e.g.

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[6] See Martin Shapiro's assessment of doctrinal public law (Finifter ,1993).

[7] The legal model is a label referring to an explanatory scheme used to describe law by such

"original intent") are expressed through interpretations of data from the Founding period and activities. Second, textual arguments, or plain meaning of the words, start from the irrefutable power of words in the Constitution and their positivist meanings. Third, structural argument is based on the expressed or agreed upon state structures and relationships derived from the Constitution. Fourth, prudential argument, appears as a catch-all category, where decisions, or portions thereof, are made on grounds other than the previous three, and are likely interpreted as institutionally self preservationist or expansionist.[8] Doctrinal argument is the final category, describing rhetoric or rationalization utilizing a precedential trail, replete with constitutive abstractions, knowledge structures, and practices like standards of review and balancing tests.

Case opinions are obviously data in doctrinal analysis, but it is opinions as they are mapped onto the categorized terrain of constitutional law. That categorization is a formalist activity, and it shapes how scholars and practitioners understand and utilize cases. Mapping is done by acts of interpretation and commentary relative to established categories, it is just that some of those acts, like that of leading legal scholars, West publishing editors, and judges themselves weigh more heavily on assigning a cases doctrinal place, thus structuring the meaning of both doctrine and cases.

For Bobbit's formulation to work doctrine needs to be understood as a fairly narrow abstraction, as a word or phrase which represents some set of practices and standards to police case domains and affect their expressed outcomes. However, practices of interpreting and applying plain meanings and original intentions might also be described doctrinally. If doctrine is simply considered an abstracted element of judicial practice and expression, then whether inspired by words in the constitution or a long history of

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practices as reasoning from precedent, stare decisis, and doctrinal argument. The attitudinal scholars of public law political science deride the legal model and the formalisms undergirding it as non-explanatory of judicial behavior, it provides them their foil.

[8] Bobbit speaks of the decisions manifesting the so-called "sift in time" of the Roosevelt era court as being prudent arguments. . .that is, the argument of the decision supports the stability of the institution, and maybe the polity generally.

interpreting those words should not matter. Bobbit suggests as much, saying that doctrinal argument was sustained in, "precedent, institutional doctrine, and doctrines of construction" (Bobbit, 1982: 47).

Bobbit shows that there is a set of knowledge structures and practices that correspond to doctrine. An accepted history exists tying together or defining a body of cases under the free exercise banner, and doctrine is important therein. This despite the existence of many types of arguments and fact patterns in that collection, and skepticism as to whether opinions really matter in understanding why judges do what they do.

3. Attitudes, Behaviors, and Databases

Doctrinal analysis and perspectives reign supreme in legal education and scholarship generally. Political science though has developed different lenses through which to view judges and courts. Behavioral studies of judicial decisions suggest that attitudinal characteristics and ideological orientations of judges are largely determinative of their case votes, and that opinions are nothing more than a rationalization of those votes.[9] Behaviorist work has at its root a realist view of judges as ideological actors, driven by policy preferences rather than archaic notions[10]like fidelity to practices such as legal reasoning, formal rule application, and doctrines such as stare decisis.[11] Realism and its

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[9] See Harold Spaeth's piece in the Spring 1996 Law and Courts Newsletter of the American Political Science Association responding to Martin Shapiro's survey of Public Law and Judicial Politics in (Finifter, 1993). Spaeth vehemently opposes Shapiro's suggestion that public law pay more attention to the words of judges, to the language of courts. Spaeth poses:
And why, we are indignantly asked, have we not returned to taking constitutional language seriously? The answer seems patently obvious to anyone even remotely connected to reality: because the justices themselves do not, anymore than their brethren on lower courts. (pp. 12)

[10] This may be called legal formalism or the legal model (Segal and Spaeth, 1993).

[11] See work (Brenner and Spaeth, 1995), which attempts to probe the influence of the legal model's stalwart, precedent, in the ultimate decisions by justices of the Court. The title of their work, Stare Indecisis is a very good indicator of their contended findings, that precedent matters little to decisions, its attitudes and values that matter.

progeny is attributed with a skeptical view of doctrine, one which largely sees doctrine as a component in the post hoc rationalization of decisions likely made on attitudinal grounds.

Based in realist theories, behavioralists claim to study judges and courts scientifically. Rather than studying judicial politics through a traditional legal formalist or other more interpretivist lenses, political scientists began coding cases and counting votes. Doctrine as a knowledge structure was not jettisoned completely however with the repudiation of legal formalism. Instead doctrine was reduced to some basic forms, behavioral political science continued to use it occasionally to code cases according to "legal provision," "authority for decision," and "issue area."[12] The other formulation is the more common, and represents long standing judicial practices like "stare decisis." However, behavioral work did not have a place in their models for stare decisis or its cousins, in fact stare decisis is incorporated only through coded variables for "precedent altered" or the like. Neither formulation though typically includes nounphrases[13] such as "compelling state interests" which represent narrow practices within domains like free exercise law. The exploration, or incorporation as codable data, of these specific nounphrases would require a deeper level of textual analysis than the behavioral effort attempts.

Common accounts of the history of behavioral studies of judges and their decisions begin with C.H. Pritchett's The Roosevelt Court (Pritchett, 1948). This work is credited with devising an essential perspective of behavioralism, one which tracks and interprets votes of justices, albeit in blocs, against a scale of liberal and conservative positions in particular areas of law. While Pritchett declined to move beyond mapping votes and ideology to a theory of decisions, he provided impetus to a generation of scholars who took

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[12] See Spaeth's Supreme Court Database Documentation, Fourth ICPSR Release, May 1993, pp. 41 - 58. Specifically these represent fields in records of the database which can be searched on

[13] Nounphrases are just that, a collection of terms which are comprised largely of nouns and adjectives, subsequent chapters will discuss how such phrases have been suggested as being most significant in the determination of meaning in a text collection.

that step. In a sense behavioralism suggests that the map, and a plethora of new more detailed ones, is the territory of explanation for judicial actions.

Subsequently many facets of legal phenomena and practices slip through their collective fingers, relegating detailed study of opinions to those too slow or stubborn to accept the sense of the attitudinal model.[14] Doctrine as a specific knowledge structure which signifies a legal practice or test in the disposition of cases, was largely left out of Pritchett's work, however the categorizations of liberal and conservative, not to mention the division of areas of law would continue to depend on abstractions that arguably have doctrinal dimensions.

Incorporating scholarship by psychologist Clyde Coombs (Coombs, 1964) political scientist Glendon Schubert articulated a model where Pritchett stopped (Schubert, 1965). Using a scaled continuum of ideologies (i.e. from liberal to conservative) Schubert contended that cases could be placed on this continuum based on a coding[15] of their ideological content. Judges are then placed on it depending on their perceived or accepted ideology; the catch was that these attitudes were being derived from judicial behavior while at the same time being suggested as an explanation for that behavior.[16] Ideally though, once you constructed your continuum, and mapped the judges' so called i-points onto it, new cases could also be mapped onto it by assigning their "j-points," analysis could move forward. No longer would this work provide just a highly coded picture of events but it could have predictive potential. Doctrine has a less than central place in this work,

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[14] Attitudinal model is the pre-eminent conceptualization of behavioral work in public law / judicial politics. Interestingly, Segal and Spaeth in the Attitudinal Model were very adamant about the lack of utility of the so called legal model for making sense of judicial decisions, claiming the authoritative high ground for their model to the exclusion of the legal model. In a subsequent work, (i.e. Brenner/Spaeth, (1995)) Spaeth appears to have backed off that dichotomous view, suggesting that the attitudinal model, while good at representing the decision making process is not, and cannot be, completely explanatory. This caveat however neglects to speculate on the proportion of explanation the attitudinal model possess, and conversely how much the legal model might contain.

[15] Coding refers to the interpretations of case profiles against this ideological scale, cases are scaled relative to other cases which are coded into a defined subject space or legal issue domain.

[16] Schubert recognizes this in a later work (Schubert, 1974: xii).

occasionally providing coders with knowledge structures for the categorization of legal subject areas and keys to assigning liberal and conservative positions vis-a-vis those areas. Specific judicial practices like balancing of interests (e.g. strict scrutiny analysis and compelling interest standards) are conspicuously absent from these coding schemes, slipping through an analytical filter unconcerned with things like doctrine.

Behavioral scholarship moved beyond the straight ideological mapping of judges and cases to a more nuanced approach at modeling judicial decision making. The work of Rohde and Spaeth (Rohde and Spaeth, 1976) is predicated on the theory that political decisions, namely of the Supreme Court, are largely a function of the policy preferences of decision makers, institutional rule structures, and the situations in which those decisions are made. The rule structures can be both formal and informal, though Rohde and Spaeth seem to focus on the formal rules of Court constitution and procedure which support the theory that policy preferences are most determinative in the discretion laden environment of the Court.[17] It is also plausible to suggest that informal rule structures in Rohde and Spaeth's conceptualization facilitate doctrines like compelling state interests, and they too have a determinative effect on attitudinal factors being operationalized.

Of central concern however are the Justices' preferences manifested through the constructs "belief," "attitude," "and value." Rohde and Spaeth suggest that these constructs are independent variables in the determination of the dependent variable "decision." They consider attitudes the key unit of operationalization in their model, and contend attitudes are relatively enduring collections of beliefs about an object and situation.[18] Values in turn are an "interrelated set of attitudes" (Rohde and Spaeth, 1976: 77). These constructs are determinative of behavior when combined with particular social

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[17] For example the Constitution's provisions which provide for life tenure, no electoral accountability, and a relatively narrow jurisdiction which has been essentially reduced to wholly discretionary writs of certiorari (for a discussion of this see Perry (1991).

[18] An object in this model is generally a person, institution, place, or thing; a situation is the context within which the decision maker confronts the object.

and institutional objects and situations. Attitudinal objects are described as individuals, groups, or corporations before the Court, identified by their social roles and those assigned them in judicial proceedings. Clearly there are formal and informal institutional rules which provide for determining the domains of objects which can come before the court. Some of those rules or practices might be considered doctrinal, but for purposes of this study it is the so-called attitudinal situation that seems most likely to be doctrinally significant.

Rohde and Spaeth identify attitudinal situations as the "dominant legal issue in the case" (Rohde and Spaeth, 1976: 77). Situations include, but are not exclusive to: abortion legislation, search and seizure and electronic eavesdropping, voluntariness of confession, comity, harmful beliefs or ideas, privacy, mootness, religious freedom, sit-in demonstrations, and the right to vote. They range from situations defined by clauses in the Constitution to very context specific situations (e.g. sit in demonstrations as an indicator of events when this book was written in the 1960's). Attitudinal situations represent a high level of abstraction, that is they are attributed to cases wholesale, allegedly capturing the essence of the case before them. In some cases then attitudinal situations could be derived from things like doctrines and tests, but they become subsumed, finding little overt expression in the proffered situations.

Contemporary behavioral work continues the basic Rohde and Spaeth project, with Supreme Court and the Attitudinal Model (Segal and Spaeth, 1993) and Brenner and Stare Indecisis (Brenner and Spaeth, 1995) the most notable efforts. However, incorporating concerns for the circularity critique of early efforts (discussed above with respect to Schubert) these works attempt to be predictive, with Stare Indecisis attempting to find attitudinal indicators from sources other than the judicial votes to be explained. This work holds "that justices make decisions by considering the facts of the case in light of their ideological attitudes and values" (Segal and Spaeth, 1993: 73). Thus their project becomes an exercise in representing cases by their constituent facts,[19] determining ideological

[19] Facts can be interpreted (e.g. legal provision) or can be claimed more objective (i.e. names).

positions vis-a-vis the decision space for those cases, and analyzing judges decisions against those positions and relative to different fact patterns. Like legal formalism this model views facts as independent variables to the decision, but unlike formalism which then goes on to suggest that things like precedent, plain meaning, intent, and balancing of interests are also determinative, the attitudinal perspective turns to the Justices' values for decision explanation.

To facilitate this Harold Spaeth constructed the Supreme Court Database, a searchable collection of computer records containing the coded representations of cases from the 1950s to the near present. The database is composed of records, each of which corresponds to a Supreme Court case opinion. Records in turn are constructed of a series of variables (fields) which are coded to represent so-called case facts, these correspond to six essential characteristics of a case: 1) identification variables -- e.g. citations and docket numbers; 2) background variables -- e.g. how the Court took jurisdiction, origin and source of case, the reason the Court granted cert; 3) chronological variables -- e.g. date of decision, term of Court, natural court; 4) substantive variables -- e.g. legal provisions, issues, direction of decision; 5) outcome variables --e.g. disposition of case, winning party, formal alteration of precedent, declaration of unconstitutionality; 6) voting and opinion variables -- e.g. how individual justices votes, their opinions and interagreements, the direction of their votes.

These variables are constructed by coders, that is, variables are filled in by individuals evaluating the case before them. Some of that evaluation is objective in that most researchers would agree to that variables existence and value (e.g. docket number). However, some of them are less objective, and require interpretation by the coder. For example, coding a case for substantive variables such as "legal provision," "issues," or "decision direction" require a coder to definitively establish a discrete value for something that may have several contenders for leading role.

The database allows for the examination of votes by querying on specific independent variable patterns. For instance, one can analyze decisions (e.g. percentage overturned or upheld) coded for a variety of characteristics in search and seizure cases (e.g. where the search was incident to a valid arrest and lacking a warrant or pursuant to a valid warrant). Scholars are then able to devise nuanced queries of the database to try and tease out decision and vote patterns based on a variety of coded independent variables. However, never are scholars able to move beyond the coding schema that has been constructed as a representation of a large collection of opinions, the text of the opinions remain beyond the reach of the database and its analytical power, and scholars must have faith that the distance is covered effectively by that schema.

Doctrine is relatively ignored in the database and the work that goes on around it, however the construction of several variables in the database imply the existence of structures and/or practices which have doctrinal connections. Specifically, the "substantive variables" of "legal provisions considered by the Court," "authority for decision," "issue," and "issue area" are all potential sites for the influence of that thing called doctrine. Again it should be noted that never does the attitudinal work come down to a lower level of abstraction and deal with specific judicial practices which are manifested in opinions, such as balancing tests or doctrines, but this work does maintain a level of operation dependent on ordering knowledge structures, some of those may be considered doctrinal.

To identify the legal provision at issue the coders sought authority, determining the provision by consulting the summary of cases in the U.S. Reports. At this level coding was basically a duplication of the Reports summary, and for the most part the values coded were known as constitutional clauses, statutory provisions, Court rules, or practices and constructs, all of which conceivably could be considered doctrinal. Doctrines explicitly included in the 1993 version of the database were the "Abstention doctrine," "retroactive application of a constitutional right," the "exclusionary rule," "harmless error,"

"res judicata," and "estoppel." Largely however doctrine, as in compelling interests, is not expressly incorporated in the database.

Behavioral Public law political science makes doctrine a largely underutilized independent variable. This scholarship pays attention to judges written words for categorization, but this may be accomplished without a complete accounting of an opinion, behavioral coding also uses the most abstract notions of doctrine. Due to criticisms of doctrine's indeterminacy and fluidity, behavioralism is generally skeptical of doctrine's significance to judicial decisions. Given this one would expect doctrine to be relegated to a few naive discussions of doctrinal legal scholars. The paradox however is that scholars and practitioners, who are privy to scholarship which denies doctrine's importance, still teach and write in its terms. As skeptics decry doctrine's use for understanding judicial decision making, and the formalists neglect to always critically examine the words of opinions to make sure a doctrinal label can stick, there is a sense that doctrine still matters.

C. The Sense and Shape of Doctrine

1. Discursive Constituting

A constitutive analysis of doctrine and case opinions examines ways those objects become meaningful, some of those ways are manifested in information machines and their practices of organization, categorization, access, and ultimately information retrieval. Constitutive socio-legal study (Brigham, 1996; Brigham, 1987; White, 1990) examines how law and its forms become meaningful through social practices which give them palpable substance. Resulting social contexts, and individuals' beliefs, attitudes, and actions thus constitute law's forms and structures. Brigham suggests that constitutional concepts and provisions are constituted, made meaningful, through social and political interests as they organize and act relative to authoritative understandings of those concepts and provisions. Law's meaning is manifested in action and belief, in discourses where individuals or groups are attempting to contest or reaffirm authoritative understandings for

social, institutional, or political ends. A significant part of legal discourse, data for understanding, are knowledge structures like doctrine helping make sense of objects like cases.

Treating law as a discourse, as "a system of linguistic and nonlinguistic modes of categorization, evaluation, and transmission of meanings, implies a significant role for case opinions and doctrine" (Davies, 1996: 43). These modes span contexts, operating within appellate courts and the legal profession, and finding expression in society and politics more generally.[20] Law signifies practices such as the application of codes, statutes, and rules in case disposition and opinion crafting. It also influences interests, community groups, perceptions and behaviors which socially mediate institutionalized law.

> It is important to note that legal discourse is not just the formal rules of the game of law, but includes all of the contextual systems which contribute to the significances established by law. (Davies, 1996: 43)

Discourses are constrained, or enabled?, by practices for manipulating knowledge structures around particular events or contexts (e.g. cases) (Brigham, 1978). Margaret Davies suggests that discourse norms (e.g. principles, doctrines, or rules) are the law's currency, that norms categorize and construct "facts" and "actions," making them meaningful, creating official stories (Davies, 1996: 52). Doctrine as norm enables descriptions of legal events through categorizing and ordering. Norms are also prescriptive as those categorizations shape how actions are socially and legally interpreted and reacted to.

In this work compelling state interests is an analytical subject for probing the practices which make knowledge structures like doctrine meaningful. A discursive approach to doctrine posits that it is a structure which can be argued over, pushed and

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[20] See for example how the compelling interest doctrine, or standard, or test, found its way to the political arena of Congress after Smith , and then how various social interests lined up for and against the re-articulation of compelling interests as proposed by Congress.

pulled, and re-articulated to manifest judicial change or discretion. Doctrine may take several forms within opinions, each form structuring understandings and expectations about what practices and standards are sensible in reaching, or at least rationalizing, decisions.

2. Doctrinal Opinions as Part of Law's Forms

Judges are the most significant individuals in the practices around knowing and using the compelling state interest doctrine. Scholarship (Brisbin, 1993; Kessler, 1993; O'Niell, 1981:631) which explores the relationship between the social phenomena of rights and Supreme Court opinions suggests that doctrine not only influences judges in their decisions and opinions, but also influences how individuals and groups know and approach law outside of specific cases or courts (Brigham, 1987). Doctrine gives rise to particular understandings of legal situations and creates opportunities for actions.[21] It is intersubjective, yet imbued with a sense of objectivity through the mediation of written words[22] and legal institutions. The authoritative texts of appellate courts contain the primary sources of law used to delineate social and political contexts.[23]

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[21] See scholarship (Conley and OBarr, 1990; Geertz, 1983) which argues that law and legal understandings / practices can, and do, contribute to particular social realities, AND that laws doing the constituting and regulating are multifaceted, with a variety of sources and histories, and different normative structures, applications, actors, prescriptions (See Law and Society scholarship on Legal Pluralism (e.g. Merry , 1990; de Sousa Santos, 1987)).

[22] See Walter Ong's discussion of how writing transformed cognitive and epistemic faculties and ultimately altered the thing being written about (Ong, 1986)

[23] These contexts may be viewed as social texts, A text is constituted by any meaningful action, which writing is only one example. . . interpretive social scientists have long believed that any bounded activity that raises questions of meaning can be considered a text. What is theoretically interesting about texts is that they raise the question of multiple meanings, and it is in how one chooses among these multiple meanings that hermeneutic theories of different sorts reveal their theoretical edge. (Scheppele, 1988: 87)

Also, In essence, the social construction model places emphasis on the primacy of language and all of the social processes by which language develops and is used. Those things we call knowledge, reality, or facts, are viewed as community-generated linguistic entities that are constitutive of the communities that generate them (Barrett, 1989: xiv).

Opinions are employed by state and private actors, officially and informally, to shape the spaces of American political and social action (Scheingold, 1974: xi; McCann, 1994: 6). Attention to doctrine, a significant structure in the "mandarin" materials of law study, is an assertion that judicial politics is conceptually expressed there (Gordon, 1984). Gordon argues that legal forms and practices are the results of political processes, and as such "arise from the struggles of conflicting social groups" (Gordon, 1984: 101). Stopping short of claiming law's forms as purely instrumental results of those conflicts, Gordon suggests that forms often provide for brakes or resistance to the instrumental changes of politics.[24] Theories of law's relative autonomy pick up this line of thought, moving beyond both Marxist and behavioral claims of laws instrumentality, positing that law's forms have an institutional quality that at least partially transcend the politics out of which they emerge. (Brigham, 1990: introduction; Thompson, 1975; Hay, 1975).

Law furnishes American politics with important symbols of legitimacy like cases and doctrine, these in turn reflect values which may be the building blocks of political ideology (Scheingold, 1974: 13). Symbols and the practices of access and understanding which connect them are "the products of long evolving historical struggles in which some interests, groups, norms have tended to prevail" (McCann, 1994: 9). By examining practices of organizing, indexing, and accessing case opinions around doctrine in a narrow domain we can also perhaps explore how those symbols evolve and shape legal conceptualizations.

D. Conclusion

Efforts to define a doctrinal profile, execute searches in computer and hard bound digest / reporter environments, and collect target case opinion texts showed that compelling

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[24] See discussion of the tensions between formal rationality of law (and its attendant legitimacy) and the desire of political elites to maintain order and the status quo (Balbus, 1937). His work was an early socio-legal assertion of laws relative autonomy (see also (Hay,1975)) in the movement away from structuralist Marxism (at its most radical) and social scientific behavioralism (at a more moderate level).

interest doctrine was not fixed or easily quantifiable in those machines. Doctrine became less sure with each step of definition and discovery, and ultimately forced a re-examination of what was being asked of each machine, and the manner in which data objects are indexed and accessed. Asking information systems to produce the desired doctrinal data made it necessary to examine doctrine itself, and how those systems structure storage of, and access to, the cases which arguably manifest doctrine. With each step (i.e. definition, discovery, acquisition, and ultimately InQuery analysis) the thing doctrine and the case opinions themselves acquired, and lost, meaningful attributes from that manipulation.

Compelling interest doctrine is a relatively low level rule or principle for judges and lawyers in the contests of constitutional law, despite that relative "low level" it is an abstraction which is extremely difficult to sustain in an information machine. That to ask either a full text or hard bound digest and reporter system to present a collection of doctrinally related cases is difficult. Compelling interest doctrine slips through the editorial and indexing filters, while proffered as significant to case outcome in the area of free exercise law, as the ratio decidendi, it was not sustained in those systems as a categorizing attribute of the data objects, but rather was subsumed under some other indexing characteristics. The structure of the data object, and the different textual representations of the target doctrine, made it difficult to create a sufficiently robust search profile so as to capture as many of the relevant cases as possible.

1. Lexis / Nexis

False positives, those data objects hit appropriately when executing a search, but not "on point" concerning compelling interests in free exercise, highlighted the importance of dicta and authoritative understandings of free exercise case law. Full text searches of documents like case opinions are going to treat all terms and phrases similarly. Full text machines cannot distinguish between dicta and the determinative text of the decision. Doctrinal terms and phrases are just as likely to occur in dicta as not. The textual presence

of compelling interests is easily ascertainable (taking into account synonyms), but determining which doctrine is most significant because of its presence in the ratio decidendi depends on more interpretation than a full text machine can provide.

Standing back and reflecting on this shows that the notion of compelling interest doctrine was well established prior to defining a search profile, that a doctrinal profile was already established by exposure to second hand knowledge proffered by knowledge experts in law and education. From that it was known what sorts of cases ought to be outside the set of cases manifesting the compelling state interests doctrine in free exercise law even before executing searches based on textual characteristics. And even in some cases where the search profile was satisfied, the "hit" document was not "on point" because it did not indicate that the compelling interests doctrine was determinative. Notions of what constitute determinative text, whether a doctrine is active in that determination, and the concept of "on point" are sustained in the knowledge bases and interpretive practices of knowledge experts. Full text systems do not, cannot, index on such notions if they are not correlated in textual occurrences or patterns. Scholars and practitioners can relatively easily ascertain when a case meets that sort of criteria, a machine is challenged.

Doctrinal synonyms for a complex expression (i.e. compelling state interests) posed a significant dilemma as well. By randomly sampling free exercise cases returned with a wide open Lexis / Nexis search (e.g. all cases with the phrase free exercise and between 1963 and the present) it became clear that there were other ways to express the balancing of interests implied by compelling interest doctrine (e.g. compelling government interests, overriding government interests, overriding state interests, interests of highest order, compelling justification for imposing this burden). Full text is devoid of the fuzzy logic with which human readers and editors make sense of data collections, people can relatively easily determine when a data object is related to a expressed information need when trained in a case-based fashion.

While dissatisfied with Lexis / Nexis as a tool to identify a doctrinal collection of cases it proves excellent for acquiring cases already identified as useful, as well as for searching for a specific case or a group of cases tied together by things like opinion writer, date range, participants, or even the presence of certain terms and phrases (e.g. religion).

2. West

Like full-text Lexis / Nexis the West hardbound digest and reporter system did not support a straightforward definition and identification of the relevant cases. West Digests are indexed by subject areas, with ever decreasing levels of abstraction in each subject area. Compelling interests in Free Exercise law is not manifested in one of those levels, it therefore must either exist within one subject area / keynumber or is spread across two or more of them depending upon the characteristics of the cases and how they intersect West's categorization scheme.

By utilizing expert knowledge which defined paradigmatic cases of compelling interests in free exercise[25] it was possible to locate one basic area in the digests where the desired cases reside. West's inclusion of headnotes and keynumbers act as identifiers and pointers, therefore the paradigmatic cases pointed back to the digest categories where similar cases could be found. Following those pointers a region in the West Digest was located in which to search for the target cases. At that point however the researcher had to manually process the digest entries, screening for Free Exercise first, then looking for signs of a balancing of interests which would either explicitly mention compelling interests or imply their incorporation in the ratio of the case. This act injected significant influences from second hand knowledge, i.e. expert knowledge derived bias in the selecting of possible cases for the data set. Cases identified still had to be examined however to determine whether the compelling interests doctrine was actually present and was part of the decisional mix.

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[25] See discussion in Chapter 6 which discusses these.

Notions of compelling interest doctrine were largely unaffected by West. It is possible that the doctrine was undercut by not being included in the subject area categories, and thus being subsumed in another category. However, one could also posit that since the compelling interest cases resided within one category (i.e. Religious Liberty) that West did in fact help re-affirm that doctrine's meaning. Also, the language of compelling interests did show up considerably in the digest case blurbs, thus further affirming the doctrine's importance. Like Lexis / Nexis however doctrine's meaning pre-dated the systems to manage case opinions, and the existence of that doctrine was not specifically part of the organizational scheme of them. Neither West or Lexis / Nexis were able to capture the cases manifesting the doctrine without significant expert knowledge, thus doctrine's meaning as a significant delimiter of judicial decision making in a particular area of law may be shaken.

As a basic finding, it became clear that doctrine such as compelling interests reside, or are largely constructed, through interpretive communities in and around federal appellate courts, working with judicial opinions. Doctrine exists more in the minds of practitioners and scholars of law; the full text machines performed poorly at capturing data that could reasonably be said to represent the target doctrinal space. West performed better but required significant human investment. Without heavy editing and tweaking by system users it is difficult for full-text or hard bound systems to provide a satisfactory set.

3. InQuery

Experience with Lexis / Nexis and West showed doctrine to be a fluid knowledge structure, and that use of those machines to define, discover, and acquire cases manifesting it was challenged without significant input from expert knowledge. Nevertheless, InQuery represented a new set of practices with which to manipulate case opinions, the data objects most tied to doctrine.

InQuery was still used to expose the conceptual content of a collection of cases delimited by compelling interest doctrine. That delimiting is based in textual content as well as editorial structuring of West and the knowledgeable searching of a researcher. Textual markers of the cases are limited to the phrase "compelling state interests" and "free exercise" and synonyms thereof. InQuery was turned loose on the collection, which had been divided into two groups, corresponding to cases where the compelling interests were present and superior and those where the claims of free exercise violation triumphed. Some basic distinctions in the conceptual patterns seemed to appear, with the basic difference being that cases where compelling interests prevailed tended to focus around the supremacy of concepts representing federal law and policy. Opinion writers also phrased these cases in terms of "exemptions" from those policies, making a rhetorical play for particular meaning, i.e. that the policy is the norm or default, and the claims vis-a-vis that policy are seeking exceptional treatment from that norm. Cases where the interests of state were less than compelling tended to focus on "children" and "education", and where local law was at issues. Rhetorically, opinion writers used the language of "beliefs" and "freedom" more readily than the other set, establishing another range of expectations and understandings.

These sorts of findings tend to re-affirm existing knowledge about compelling interest doctrine, and likely could have been determined with a less robust machine for analysis. Since the corpus is relatively small it would have been possible to make similar observations by reading each and keeping track. But InQuery shows other concepts and distinctions between them that might not be so obvious, and more importantly it opens up new possibilities for case text analysis and manipulation for larger databases. This is all the more significant in the wake of the Supreme Court's decision in the Spring of '99 to let stand (i.e. declined to hear the case) a lower court decision which established that West did not own the content of case opinions, aside from their editorial value added of course. New markets are opening, systems like InQuery are likely candidates for organizing and

making sense of the growing mass of case opinions.

With the real prospects for a dramatically changing legal information market InQuery, or similar products, may offer practitioners and scholars new tools to categorize and structure access to law's data. It is very likely that these tools will sustain new understandings of that data, as well as undercut existing knowledge bases. Existing knowledge bases and their human facilitators though will also influence the way new systems are brought on line, and ultimately will structure the influence these new tools have. It is impossible for new tools to simply exist, in a context free manner with no relation to the world they enter, they come into being as part of a tradition of information manipulation and knowledge traditions. Whether new tools supplant the old remains to be seen, the primary players are still extremely well positioned and powerful, yet there is dissent and dissatisfaction, and those forces often move markets and their entrants in new directions.

APPENDIX A

LEXIS / NEXIS QUERIES

Query 1: (compell! w/2 interest) w/3 (state or government)

results: This had many thousands of hits, and rightly so, as it is going to pull all cases that just mention the doctrine. Many false positives (i.e. returned cases that did not represent a case where a free exercise balancing tests was applied, that were "on point").

subsequent action: Narrowed this query by adding "and (free exercise) and (first amendment) and (religion)," but still had over 600 hits, again the query will pull cases which just mention free exercise, First Amendment, Religion, and a combination of compelling state or government interests in close proximity.

Query 2 : free exercise and date > 1962 -> over 4000 hits

and (compelling w/2 interest) -> 936 hits

results: These pulled too many, considerable false positives. These attempted to use date as a floor, since the Supreme Court did not start using compelling state interest in religious free exercise until then, but again it will hit on cases where compelling state interest is mentioned but not acted on, or in merely a discussion context (i.e. dicta), not working with it (i.e. ratio decidendi). For example, it will pull Establishment cases that merely talk about free exercise as another area of First Amendment doctrine.

subsequent action: Narrow further by requiring state or government interests to be present.

Query 3: (free exercise and date > 1962) and ((compelling w/2 interest) w/3 (state or government)) -> 708 hits

results: Many false positives result.

subsequent action: Took new path, forget date for now, just try to narrow around the doctrinal phrase.

Query 4: (compelling state interest or compelling government interest) and (free exercise and religion)

results: Many false positives, again this makes sense because so many discussions of compelling interests exist, in several constitutional areas, and the mere mention of the 1st Amendment application of it will trigger a hit.

subsequent action: Try to peel off specific groups of false positives, try to identify those doctrinal discussions that will also have compelling interest language and remove cases accordingly.

Query 5: (compelling government interest or compelling state interest w/40 free exercise or religion) and not (compelling government interest or compelling state interest w/10 establishment) -> 307 hits, note: 14 of these were Supreme Court cases while 97 were federal circuit cases

results: Added the "and not" to skim off hits which CSI or CGI occurred, but that was concerned with Establishment rather than free exercise. The use of not is problematic because now some false positives are eliminated, but also very likely those true positives which as a matter of dicta discuss Establishment and compelling state interests. This also missed "overriding government interest" in U.S. v. Lee 455 U.S. 252 (1982), and case opinions with "compelling state interest or compelling government interest w/40 of religious," (e.g. Lyng V. Northwest Indian Cemetery Protection Assn , 108 S. Ct 1319 (1988)).

subsequent action: Turn to West editors and the agents of legal information authority.

APPENDIX B

DATA SET

Cases where individual claims supercede state interests (LOSE)

Arnold v. Board of Education, Escambia County Ala.. 880 F. 2d 305 (1989).
Callahan v. Woods. 658 F. 2d 679 (1981).
Callahan v. Woods. 736 F. 2d 1269 (1984).
Church of the Lukumi Babalu Aye v. City of Mont Hialeah. 113 S. Ct. 2217 (1993).
Edwards v. Maryland State Fairs. 628 F. 2d 282 (1980).
Fairfax Covenant Church v. Fairfaz City School. 17 F. 3d 703 (1994).
Ferguson v. IRS. 921 F. 2d 588 (1991).
Frazee v. Illinois Dept of Employement & Security. 101 S. Ct. 1514 (1989).
Hobbie v. Unemployement Appeals Commission. 107 S. Ct. 1046 (1987).
International Society for Krishna Consciousness v. Barger. 650 F. 2d 430 (1981).
International Society for Krishna Consciousness v. Bowen. 600 F. 2d 667 (1979).
Islamic Center of Mississippi v. Starkville, Mississippi. 840 F. 2d 293 (1988).
McCurry v. Tesch. 738 F. 2d 271(1984).
McDaniel v. Paty. 98 S. Ct. 1322 (1978).
Mozert v. Hawkins County Public Schools. 765 F. 2d 75 (1985).
Mozert v. Hawkins County Board of Education. 827 F. 2d (1987).
Northwest Indian Cemetary Protection Associatioin v. Peterson. 795 F. 2d 688 (1985).
Peyote Way Church of God v. Smith. 742 F. 2d 193 (1984).
Quaring v. Peterson . 728 F. 2d 1121(1984).
Salvation Army v. Department of Community Affairs, N.J. 919 F. 2d 183 (1990).
Society of Separationists v. Herman. 939 F. 2d 1207 (1991).
Spence v. Bailey. 465 F. 2d 797 (1972).
Thomas v. Review Board of Indiana Employment Division. 101 S. Ct. 1425 (1981).
Wisconsin v. Yoder. 92 S. Ct. 1526 (1972).
Yonkers Raceway v. City of Yonkers. 858 F. 2d 855 (1988).
Yott v. Rockwell. 501 F. 2d398 (1974).

Prison 1 (P1L)

Barnett v. Rodgers. 410 F. 2d 995 (1969).
Brown v. Peyton. 437 F. 2d 1228 (1971).
Jihaad v. O'brien. 645 F. 2d 556 (1981).
Neal v. Georgia. 469 F. 2d 446 (1972).
Walker v. Mintzes. 771 F. 2d 227 (1985).
Yevgen v. Scully. 817 F. 2d 227 (1987).

Cases where state interests prevailed over individual claims (WIN)

Alexander v. Boston University. 766 F. 2d 630 (1985).
American Friends Service Commission v. Thornburgh . 941 F. 2d 808 (1991).
American Friends Service Commission v. Thornburgh. 961 F. 2d 1405 (1992).
Austin v. Berryman. 878 F. 2d 786 (1989).
Badoni v. Higginson. 638 F. 2d 172 (1980).
Ballinger v. IRS . 728 F. 2d 1287 (1984).
Baz v. Walters. 782 F. 2d 701(1986).
Bethel Baptist Church v. U.S . 822 F. 2d 1334 (1987).
Bob Jones University v. U.S. 103 S. Ct. 2017 (1983).
Borgeson v. U.S. 757 F. 2d 1071 (1985).
Bowen v. Roy. 106 S. Ct. 2147 (1986).
Brandon v. Bd. of Education, Guilderland Central School District . 635 F. 2d 971 (1980).
Brown v. Hot, Sexy, Safe Productions. 68 F. 3d 525 (1995).
Brown v. Polk County, Iowa. 37 F. 3d 404 (1994).
Christian Echoes National Ministry v. U.S. 470 F. 2d 849 (1972).
Christian Gospel Church v. City of San Fransisco. 896 F. 2d 1221 (1990).
Crain v. Board of Police Commissioners, St. Louis. 920 F. 2d 1402 (1990).
Dole, Secretary of Labor v. Shenandoah Baptist Church. 899 F. 2d 1389 (1990).
EEOC v. Freemont Christian School. 781 F. 2d 1362 (1986).
EEOC v. Pacific Press Publishing . 676 F. 2d 1272 (1982).
EEOC v. Southwestern Baptist Theological Seminary . 651 F. 2d 277 (1981).
Empl. Division, Dept. of Human Resources, Oregon v. Smith. 108 S. Ct. 1444 (1988).
Empl. Division, Dept. of Human Resources, Oregon v. Smith. 110 S. Ct. 1595 (1990).
Fellowship Baptist Church v. Iowa Department Public Instruction. 815 F. 2d 485 (1987).
Fleischfresser v. Directors of School District 200. 15 F. 3d 680 (1994).
First Assembly of God, Naples Fla. v. Collier County. 20 F. 3d 419 (1994).
Forest Hills Early Learning Center v. Lukhard. 728 F. 2d 230 (1984).
Golden Eagle v. Johnson. 493 F. 2d 1179 (1974).
Goldman v. Weinberger. 106 S. Ct. 1310 (1986).
Graham v. IRS. 822 F. 2d 844 (1987).
Gray v. Gulf, Mobile, and Ohio Railroad Co. 429 F. 2d 1064 (1970).
Grosz v. City of Miami Beach, 721 F. 2d 729 (1983).
Grove v. Mead School District. 753 F. 2d 1528 (1985).
Hernandez v. IRS. 819 F. 2d 1212 (1987).
Hernandez v. IRS. 109 S. Ct. 2136 (1989).
Hynes v. Metropolitan Government of Nashville. 667 F. 2d 549 (1982).
Intercommunity Center for Justice and Peace v. INS . 910 F. 2d 42 (1990).
International Society for Krishna Consciousness v. Houston 689 F. 2d541(1982).
Lakewood Congregation of Jehovas Witnesses v. Lakewood. 699 F. 2d 303 (1983).
Linscott v. Millers Falls Co. 440 F. 2d 14 (1971).
Lyng v. Northwest Indian Cemetary Association. 108 S. Ct 1319 (1988).
Menora v. Illinois High School Association. 683 F. 2d 1030 (1982).
Messiah Baptist hurch v. County of Jefferson, Colorado. 859 F. 2d 820 (1988).
Miller v. IRS. 829 F. 2d 500 (1987).
Murray v. City of Austin. 947 F. 2d 147 (1991).
Murphy v. ARkansas. 852 F. 2d 1039 (1988).
Nelson v. U.S. 796 F. 2d 164 (1986).
New Life Baptist Church v. East Longmeadow . 885 F. 2d 940 (1989).
Ogden v. U.S. 758 F. 2d 1168 (1985).
Olsen v. DEA. 878 F. 2d 1458 (1989).

Olsen v. IRS. 709 F. 2d 278 (1983).
Palmer v. Chicago Board of Education. 603 F. 2d 1271(1979).
Peyote Way Church of God v. Thornburgh. 922 F. 2d 1210 (1991).
Port v. Heard . 764 F. 2d 423 (1985).
Potter v. Murray City. 760 F. 2d 1065 (1985).
Rushton v. Nebraska Public Power District. 844 F. 2d 562 (1988).
Ryan v. U.S. 950 F. 2d 458 (1991).
Scott v. Rosenberg. 702 F. 2d 1263 (1983).
Sherwood v. Brown . 619 F. 2d 47 (1980).
Smith v. Board of Education North Babyon Union Free School Dist. 844 F. 2d 90(1988).
South Ridge Baptist Church v. Industrial Commission of Ohio. 911 F. 2d 1203 (1990).
St. Bartholomew's Church v. NYC. 914 F. 2d 348 (1990).
St. Elizabeth Community Hospital v. NLRB . 708 F. 2d 1436 1983).
St. German of Alaska Eastern Orthodox Church v. U.S. 840 F. 2d 1087 (1988).
Struck v. Secretary of Defense. 460 F. 2d 1372 (1971).
Swaggart Ministries v. Board of Equalization, California. 110 S. Ct. 688 (1990).
U.S v. Allen. 760 F. 2d 447 (1985).
U.S. v. Bertram. 477 F. 2d 1329 (1973).
U.S. v. Bigman. 470 F. 2d 13 (1970).
U.S. v. Campbell. 439 F. 2d 1087 (1971).
U.S. v. Del Socorro. 883 F. 2d 662 (1989).
U.S. v. Dickens. 695 F. 2d 765 (1982).
U.S. v. Gering. 716 F. 2d 615 (1983).
U.S. v. Greene. 892 F. 2d 453 (1989).
U.S. v. Grayson. 656 F. 2d 1070 (1981).
U.S. v. Holmes. 614 F. 2d 985 (1980).
U.S. v. Lee. 102 S. Ct. 1051 (1982).
U.S. v. Middleton. 690 F. 2d 820 (1982).
U.S. v. Mowat. 582 F. 2d 1194 (1978).
U.S. v. Merkt . 794 F. 2d 950 (1986).
U.S. v. Rush. 738 F. 2d 497 (1984).
U.S. v. Schmucker. 815 F. 2d 413 (1987).
U.S. v. Scopo. 861 F. 2d 339 (1988).
U.S. v. Slabaugh. 852 F. 2d 1081 (1988).
U.S. v. Turnbull. 888 F. 2d 636 (1989).
Vandiver v. Hardin County Board of Education 925 F. 2d 927 (1991).
Vernon v. Los Angeles. 27 F. 3d 1385 (1994).
Walsh v. Louisiana High School Athletic Association. 616 F. 2d 152 (1980).
Wilson v. Block. 708 F. 2d 735 (1983).
Wilson v. NLRB. 920 F. 2d 1282 (1990).
Windsor Park Baptist Church v. Arkansas Activity Association. 658 F. 2d 618 (1981).

Prison 1 (P1W)

Abdullah v. Kinnison. 769 F. 2d 345 (1985).
Brooks v. Wainwright. 428 F. 2d 652 (1970).
Brown v. Wainwright. 419 F. 2d 1376 (1970).
Childs v. Duckworth . 705 F. 2d 915 (1983).
Cole v. Fulcomer. 758 F. 2d 124 (1985).
Dreibelbis v. Marks. 742 F. 2d 792 (1984).
Hill v. Blackwell. 774 F. 2d 338 (1985).
Jaworski v. Schmidt . 684 F. 2d 498 (1982).
Kahane v. Carlson. 527 F. 2d 492 (1975).

LaReau v. MacDougall. 473 F. 2d 974 (1972).
Little v. Norris. 787 F. 2d 1241 (1986).
Madyun v. Franzen. 704 F. 2d 954 (1983).
O'Malley v. Brierly. 477 F. 2d785 (1973).
Smith v. Coughlin. 748 F. 2d 783 (1984).
St. Clair v. Cuyler. 634 F. 2d 109 (1980).
Teterud v. Burns. 522 F. 2d 357 (1975).
Walker v. Blackwell . 411 F. 2d 23 (1969).

Note: The following were collected but not part of analysis at this phase of project - for future reference

Prison 2 (P2L) - Prisoner's claims victorious

Ali v. Cousins. 912 F. 2d 86 (1990).
Higgins v. Burroughs. 816 F. 2d 119 (1987).
LaFevers v. Saffle. 936 F. 2d 1117 (1991).
Malik v. Brown. 16 F. 3d 330 (1994).
McCabe v. Arave. 827 F. 2d 634 (1987).
McKinney v. Maynard. 952 F. 2d 350 (1991).
Mosier v. Maynard. 937 F. 2d 1521 (1991).
Phelps v. Dunn. 965 F. 2d 93 (1992).
Reed v. Faulkner. 842 F. 2d 960 (1988).
Salaam v. Lockhart. 856 F. 2d 1120 (1988).
Ward v. Walsh. 1 F. 3d 873 (1993).
Young v. Coughlin. 866 F. 2d 567 (1989).
Young v. Lane. 922 F. 2d 370 (1991).

Prison 2 (P2W) - State interests prevailed

Abdur-Rahman v. Michigan. 65 F. 3d 489 (1995).
Allen v. Toombs. 827 F. 2d 563 (1987).
Aziz v. Moore. 8 F. 3d 13 (1993).
Bear v. Nix. 977 F. 2d 1291 (1992).
Bettis v. Delo . 14 F. 3d 22 (1994).
Blair-Bey v. Nix. 963 F. 2d 162 (1992).
Brown v. Harris. 26 F. 3d 68 (1994).
Campbell v. Purkett . 957 F. 2d 535 (1992).
Cooper, et. al. v. Tard. 856 F. 2d 125 (1988).
Dunavant v. Moore. 907 F. 2d 77 (1990).
Eason v. Thaler. 73 F. 3d 1322 (1996).
Farid v. Smith. 850 F. 2d 917 (1988).
Felix v. Rolan. 833 F. 2d 517 (1987).
Friedman v. Arizona. 912 F. 2d 328 (1990).
Friend v. Kolodzienczak. 923 F. 2d 126 (1991).
Hadi v. Horn. 830 F. 2d 779 (1987).
Hall v. Bellmon. 935 F. 2d 1106 (1991).
Iron Eyes v. Henry. 907 F. 2d 810 (1990).
Jordan v. Gardner. 953 F. 2d 1137 (1992).
Mark v. Nix. 983 F. 2d 138 (1993)
Matiyn v. Henderson. 841 F. 2d 31 (1988).
Matthews v. Morales. 23 F. 3d 118 (1994).
McCorkle v. Johnson. 881 F. 2d 993 (1989).

O'Lone v. Shabaz.	107 S. Ct. 2400 (1987).
Powell v. Estelle.	959 F. 2d 22 (1992).
Sapanajin v. Gunter.	857 F. 2d 463 (1988).
Scott v. Mississippi.	961 F. 2d 77 (1992).
Skelton v. Pri-Cor. Inc.	963 F. 2d 100 (1991).
Standing Deer v. Carlson.	831 F. 2d 1525 (1987).
Tisdale v. Dobbs.	807 F. 2d 734 (1986).
Turner v. Safley.	107 S. Ct 2254 (1987).
Udey v. Kastner.	805 F. 2d 1218 (1986).
Williams v. Lane.	851 F. 2d 867 (1988).

APPENDIX C

DATA FILES

File name **Description**

1) **Win** - Corresponds to all non-prison cases between 1963 and present where the proffered claim of a policy's violation of an individual's right to religious free exercise was superseded by the state's interests or needs.

2) **Lose** - All those non-prison cases between 1963 and present where the proffered claim of a policy's violation of an individual's right to religious free exercise prevailed

3) **P1W** - All those prison cases prior to the 1987 doctrinal shift where the prison administration or state policy prevailed over an inmate's claim of violation of their free exercise rights

4) **P1L** - All those prison cases prior to 1987 where the prison administration or state policy was superseded by an inmate's claim of violation of their free exercise rights

5) **P2W** - All those prison cases subsequent to 1987's doctrinal sea change regarding standards of evaluation of free exercise claims by prisoners, and where the prison administration or state policy prevailed

6) **P2L** - All those prison cases subsequent to 1987's doctrinal sea change regarding standards of evaluation of free exercise claims by prisoners, and where the prison administration or state policy was superseded by a prisoner's rights.

7) **Win + Lose** - All non prison cases

8) **Win + P1W** - All cases where state policy or action upheld and compelling interest applied.

9) **Lose + P1L** - All cases where individual rights upheld and compelling interest applied.

10) **(Win + P1W) + (Lose + P1L)** - All cases compelling interest applied.

APPENDIX D

OCCURRENCE FREQUENCY

Occurrence Frequencies for the most highly occuring phrases

1. Cases where state interests prevailed (file 8)

Occ., Phrase, Relative Occurrence frequency (% highests occ.)

3009	u.s.	100.00%
1875	court	62.31%
1867	f.2d	62.05%
1846	1. ed	61.35%
1833	s. ct	60.92%
1187	religion	39.45%
1180	government	39.22%
1106	district court	36.76%
1061	united states	35.26%
1059	state	35.19%
1057	case	35.13%
941	church	31.27%
931	cir	30.94%
769	interest(s) *	25.56%* combined 33%
686	exercise	22.80%
644	section	21.40%
629	law	20.90%
628	belief(s) 939 *	20.87% * combined 31%
617	id.	20.51%
581	plaintiffs	19.31%
558	use	18.54%
532	burden	17.68%
522	evidence	17.35%
511	exemption	16.98%
499	right(s) 868 *	16.58% * combined 28%
496	congress	16.48%
479	defendant	15.92%
461	appellants	15.32%
459	part	15.25%
440	order	14.62%
434	u.s.c.	14.42%
433	issue	14.39%
417	defendants	13.86%
412	purpose(s) 717 *	13.69% * combined 24%
412	conduct	13.69%
410	statute	13.63%
385	action	12.79%
378	cert.	12.56%
377	first amendment	12.53%
370	fact	12.30%
370	claim(s) 614 *	12.30% * combined 20%

369	rights	12.26%
369	act	12.26%
363	supreme court	12.06%
362	cases	12.03%
350	members	11.63%
339	practice(s) 614 *	11.27% * combined 20%
335	opinion	11.13%
334	decision	11.10%
333	regulation(s) 631 *	11.07% * combined 21%
327	amendment	10.87%
325	time	10.80%
325	question	10.80%
324	s. ct.	10.77%
314	city	10.44%
314	appeal	10.44%
313	counsel	10.40%
311	effect	10.34%
311	belief	10.34%
310	record	10.30%
310	application	10.30%
309	person	10.27%
309	education	10.27%
309	activities	10.27%
305	purposes	10.14%
302	violation	10.04%
298	regulations	9.90%
294	basis	9.77%
292	plaintiff	9.70%
285	courts	9.47%
282	b	9.37%
279	school(s) 539 *	9.27% * combined 18%
275	practices	9.14%
274	freedom	9.11%
272	board	9.04%
268	services	8.91%
267	trial	8.87%
263	judgment	8.74%
260	schools	8.64%
259	history	8.61%
250	children (child) 359 *	8.31% * combined 12%
244	sherbert	8.11%
244	claims	8.11%
241	information	8.01%
239	argument	7.94%
237	matter	7.88%
234	persons	7.78%
233	irs	7.74%
230	peyote	7.64%
228	rule	7.58%
228	authority	7.58%
225	establishment clause	7.48%
224	interests	7.44%
221	secretary	7.34%
221	employees	7.34%

221	benefits	7.34%
221	appeals	7.34%
220	yoder	7.31%
220	means	7.31%
220	faith	7.31%
220	f.supp	7.31%
217	free exercise clause	7.21%
216	organization	7.18%
214	facts	7.11%
212	individual	7.05%
211	laws	7.01%
208	protection	6.91%
205	summary judgment	6.81%
204	inc.	6.78%
201	respect	6.68%
200	motion	6.65%
198	inmates	6.58%
197	denial	6.55%
195	smith	6.48%
194	n	6.45%
194	benefit	6.45%
193	reason	6.41%
191	nature	6.35%
189	relief	6.28%
186	way	6.18%
183	policy	6.08%
183	payments	6.08%
182	testimony	6.05%
182	property	6.05%
179	j.	5.95%
178	status	5.92%
177	aliens	5.88%
174	parents	5.78%
173	activity	5.75%
172	reasons	5.72%
172	organizations	5.72%
172	commissioner	5.72%
170	process	5.65%
168	review	5.58%
168	employee	5.58%
167	view	5.55%
167	tax	5.55%
167	students	5.55%
166	defense	5.52%
163	investigation	5.42%
163	constitution	5.42%
162	thomas	5.38%
161	years	5.35%
161	circumstances	5.35%
160	test	5.32%
160	jury	5.32%
160	course	5.32%
159	power	5.28%
157	institution	5.22%

156	lee		5.18%
156	example		5.18%
156	district		5.18%
155	grounds		5.15%
155	emphasis		5.15%
154	requirement		5.12%
154	holding		5.12%
153	discrimination		5.08%
152	parties		5.05%
152	ordinance(s) 195 *		5.05% * combined 6%
152	institutions		5.05%
152	brief		5.05%
151	standard		5.02%
151	area		5.02%
150	payment		4.99%
148	marijuana		4.92%
147	society		4.89%
147	light		4.89%
147	discretion		4.89%
146	support		4.85%
146	id		4.85%
146	exception		4.85%
146	analysis		4.85%
144	people		4.79%
144	number		4.79%
143	instruction		4.75%
143	churches		4.75%
142	requirements		4.72%
142	determination		4.72%
141	context		4.69%
141	actions		4.69%
138	result		4.59%
138	place		4.59%
137	terms		4.55%
136	statement		4.52%
136	judges		4.52%
136	issues		4.52%
135	extent		4.49%
135	complaint		4.49%
134	doctrine		4.45%
134	conclusion		4.45%
133	funds		4.42%
132	exercise	clause	4.39%
131	hearing		4.35%
130	intent		4.32%
130	individuals		4.32%
129	new	york	4.29%
129	need		4.29%
129	employer		4.29%
128	verner		4.25%
128	request		4.25%
128	religions		4.25%
127	questions		4.22%
127	others		4.22%

126	states	4.19%
126	speech	4.19%
126	public	4.19%
126	provision	4.19%
125	service	4.15%
125	possession	4.15%
125	manner	4.15%
125	enforcement	4.15%
124	system	4.12%
124	state interest	4.12%
124	form	4.12%
124	county	4.12%
123	provisions	4.09%
123	cause	4.09%
122	worship	4.05%
122	inquiry	4.05%
121	impact	4.02%
120	wisconsin	3.99%
119	addition	3.95%
118	god	3.92%
118	association	3.92%
117	circuit judge	3.89%
116	title vii	3.86%
116	indictment	3.86%
116	failure	3.86%
116	exercise rights	3.86%
116	accommodation	3.86%
115	group	3.82%
115	decisions	3.82%
115	areas	3.82%
114	respondents	3.79%
114	legislation	3.79%
113	interpretation	3.76%
112	refusal	3.72%
112	prohibition	3.72%
112	land	3.72%
112	conviction	3.72%
111	prosecution	3.69%
111	principle	3.69%
111	opinionby	3.69%
110	employment	3.66%
109	states court	3.62%
109	showing	3.62%
109	petitioners	3.62%
109	child	3.62%
108	hair	3.59%
108	finding	3.59%
108	entry	3.59%
107	d.c.	3.56%
107	california	3.56%
107	ante	3.56%
107	amount	3.56%
106	treatment	3.52%
106	response	3.52%

106	prison	3.52%
106	language	3.52%
106	february	3.52%
106	appellees	3.52%
105	work	3.49%
105	program	3.49%
105	opportunity	3.49%
105	hernandez	3.49%
104	trial court	3.46%

2. Cases where individual claims prevailed over proffered state interests

Occ., Phrase,	Relative Occurrence frequency (% highests occ.)
1096	u.s. 100.00%
751	court 68.52%
684	s. ct 62.41%
674	l. ed 61.50%
572	religion 52.19%
556	state 50.73%
489	district court 44.62%
408	f.2d 37.23%
389	case 35.49%
323	exercise 29.47%
316	beliefs(s) 593 * 28.83% * combined 54%
277	belief 25.27%
275	city 25.09%
271	right(s) 457 * 24.73% * combined 42%
261	law 23.81%
248	interest(s) 369 * 22.63% * combined 33%
240	cir 21.90%
231	id. 21.08%
228	government 20.80%
207	children or child 311 * 18.89% * combined 28%
204	opinion 18.61%
202	plaintiffs 18.43%
194	order 17.70%
192	church 17.52%
191	plaintiff 17.43%
188	education 17.15%
186	rights 16.97%
180	defendants 16.42%
178	practice(s) 273 * 16.24% combined 23%
174	burden 15.88%
172	free exercise clause 15.69%
164	cases 14.96%
162	claim 14.78%
161	use 14.69%
161	conduct 14.69%
158	tsa 14.42%
158	action 14.42%
153	decision 13.96%
150	part 13.69%
149	united states 13.59%
147	freedom 13.41%
143	issue 13.05%
142	sherbert 12.96%
140	supreme court 12.77%
139	judgment 12.68%
138	s. ct. 12.59%
135	first amendment 12.32%
134	record 12.23%
131	smith 11.95%
130	question 11.86%
130	evidence 11.86%

128	regulation(s) 212 *	11.68% * combined 19%
125	members	11.41%
121	purpose(s) 192*	11.04% * combined 17%
121	interests	11.04%
120	violation	10.95%
119	ordinance(s) 210 *	10.86% * combined 19%
119	basis	10.86%
116	rule	10.58%
114	thomas	10.40%
111	appeal	10.13%
105	courts	9.58%
104	fact	9.49%
104	child	9.49%
101	school(s) 185 *	9.22% * combined 17%
101	protection	9.22%
100	complaint	9.12%
99	inmates	9.03%
99	faith	9.03%
99	act	9.03%
97	work	8.85%
95	way	8.67%
95	u.s.c.	8.67%
95	practices	8.67%
95	affirmation	8.67%
94	statute	8.58%
94	society	8.58%
94	reasons	8.58%
94	parents	8.58%
93	effect	8.49%
92	provisions	8.39%
91	ordinances	8.30%
91	life	8.30%
91	exemption	8.30%
91	claims	8.30%
90	n	8.21%
89	requirement	8.12%
89	benefits	8.12%
89	appellants	8.12%
88	nature	8.03%
87	laws	7.94%
87	j.	7.94%
87	course	7.94%
87	amendment	7.94%
86	yoder	7.85%
86	verner	7.85%
86	section	7.85%
86	board	7.85%
84	schools	7.66%
84	regulations	7.66%
84	immunity	7.66%
84	establishment clause	7.66%
82	students	7.48%
82	hearing	7.48%
81	holding	7.39%

81	animals	7.39%
80	view	7.30%
80	time	7.30%
80	actions	7.30%
79	proceedings	7.21%
78	wisconsin	7.12%
78	state interest	7.12%
78	application	7.12%
77	school board	7.03%
77	person	7.03%
77	history	7.03%
77	cert.	7.03%
76	persons	6.93%
75	relief	6.84%
75	activity	6.84%
74	means	6.75%
74	matter	6.75%
72	respect	6.57%
72	number	6.57%
71	purposes	6.48%
71	injunction	6.48%
71	callahan	6.48%
70	oath	6.39%
70	god	6.39%
70	f. supp	6.39%
69	years	6.30%
68	test	6.20%
68	refusal	6.20%
68	florida	6.20%
68	emphasis	6.20%
67	program	6.11%
67	counsel	6.11%
67	amish	6.11%
66	summary judgment	6.02%
66	people	6.02%
66	hialeah	6.02%
66	circumstances	6.02%
66	cause	6.02%
66	army	6.02%
65	neutrality	5.93%
65	facts	5.93%
65	article	5.93%
65	argument	5.93%
64	sankirtan	5.84%
63	states	5.75%
63	others	5.75%
63	office	5.75%
63	individual	5.75%
63	constitution	5.75%
63	b	5.75%
62	prisoners	5.66%
62	activities	5.66%
61	day	5.57%
60	result	5.47%

60	quaring	5.47%
60	provision	5.47%
60	property	5.47%
59	terms	5.38%
59	state court	5.38%
59	seminary	5.38%
59	district	5.38%
59	concern	5.38%
58	support	5.29%
57	tennessee	5.20%
57	issues	5.20%
57	country	5.20%
57	appeals	5.20%
56	power	5.11%
56	department	5.11%
56	appellee	5.11%
55	reason	5.02%
55	peyote	5.02%
55	parties	5.02%
55	new york	5.02%
55	judge	5.02%

APPENDIX E

RELATIVE OCCURRENCE FREQUENCIES

Concepts of more importance in those cases where the individual claims superseded those of the state (i.e., file 9):

model:	*nounphrase (rel. occ. freq. in file 9 to rel. occ. freq. in file 8)*
	religion (52% to 39%)
	state (51% to 35%)
	district court (45% to 37%)
	exercise (29% to 23%)
	belief(s) (54% to 31%)
	city (25% to 10%)
	right(s) (42% to 28%)
	children-child (28% to 12%)
	education (17% to 10%)
	practice(s) (25% to 20%)
	freedom (13% to 9%)
	sherbert (13% to 8%)
	smith (12% to 6%)
	ordinance(s) (19% to 6%)
	society (9% to 5%)
	free exercise clause (16% to 7%)
	life (8% to .5%)
	god (6% to 3%)

Concepts of more importance in those cases where state interest was compelling and prevailed (i.e., file 8).

model:	*nounphrase (rel. occ. freq. in file 8 to rel. occ. freq. in file 9)*	
	government	**(39% to 21%)**
	church	**(31% to 17%)**
	united states	**(35% to 13%)**
	congress	**(16% to 4%)**
	statute	**(14% to 9%)**
	exemption	**(17% to 8%)**
	purpose(s)	**(24% to 17%)**

APPENDIX F

CO-OCCURRENCE ASSOCIATIONS

File 8 - Cases where state interests prevailed

InFinder found 928 terms related to: **religion**

religion problem	- religion posed problems for state policy?
plaintiffs' religion	- not significant
nuclearism	- interesting but not clear on its meaning
precepts	
respondents' religion	-not significant
religion	
religion requirement	
peyote places	- reference to Smith,?
female soldiers	- idiosyncratic likely,
b. free exercise	
nationalism	- as rationale for compelling interests?
nonreligion	
state entanglement	- Establishment language? patterns in Dicta?
faith mandates	- Balancing test language
calculus	
burden results	
advances	
government entanglement	
property protection statute	
religion clauses	

File 9 - Cases where state interests superseded

InFinder found 536 terms related to: **religion**

nonreligion	
free exercise clause.	-Interestingly, the clause is discussed more here
precepts	
conception	- Procreative? not likely, a religious "conception" perhaps
discrimination because	- Sensible association,
disputes	- Language of disputes rather than "exemptions"
state governments	- State - local laws more likely to be superseded
imposition	- See "disputes" above
religion clauses	
religion	
photograph requirement burdens	- Idiosyncratic, several cases dealt with photo id's
heritage	
government entanglement	
fence	- Interesting, but not sure how it fits, likely idiosyncratic
state religion	
adherents	
toward	

science
process clause - Due Process? Interesting that it would crop up here

File 8 - Cases where state interests prevailed

InFinder found 710 terms related to: **interest**

tax benefits places - Exemptions from tax policy sought
petitioners' exercise
burden denial - Claims of free exercise burden fail
interest claiming protection
part ii-b - Peculiar, referent to statute, wordy judge?
interest
government interest
state interest
tax collection - See "tax benefits places" above
say
n6 because
stake
welfare fraud - Another area where state interests are
compelling
unemployment compensation statutes - See "welfare fraud" above
id. thus
workplace
solvency *Doctrinal coherency? economic issues heavy?
amendment interest
overriding - Doctrinal synonyms used more heavily
interest test

File 9 - Cases where state interests superseded

InFinder found 337 terms related to: **interest**

student groups - Idiosyncratic - though several cases were of education variety
state university - Idiosyncratic
liberty interest *Doctrinal coherency? ideological element to judicial rhetoric
interest
state interest
motorists - Idiosyncratic - photographic requirement / license cases
state interest test
proximity
licensees - Idiosyncratic
transactions
government interest
applications
identification
photograph requirement - See licensees, motorists, identification above
exclusion
magnitude - Balancing test language?
interest test
crowd control - Idiosyncratic

concessionaires - Ditto
animal carcasses - Likely idiosyncratic

File 8 - Cases where state interests prevailed

InFinder found 1001 terms related to: **exercise**

exercise litigation
school attendance statute - Idiosyncratic? or a reference to Yoder
exercise protections
religion problem * Doctrinal coherency?
process right
state accommodation * Exemptions policy as the default
value judgment * Doctrinal coherency?
exercise clause
exercise rights
free exercise
exercise claim
exercise challenge
state compulsion - State is compelled, balancing test language
ridicule
restraint argument
religion shenandoah - Idiosyncratic
peyote places - Smith references?
interest claiming protection
a-e
exercise

File 9 - Cases where state interests superseded

InFinder found 607 terms related to: **exercise**

animal-sacrifice laws
smith rule - Heavy use, esp. since most cases in this set come before Smith
protections
regulates
issue discriminates * Doctrinal coherency? Discrimination by state policy
designs
rule smith
quotation marks
free exercise clause
exercise claim
historical understanding * Doctrinal coherency? Judges referring to traditions of interpretation and knowledge of religious beliefs / actions
case law
exercise
neutrality * Doctrinal coherency?

state actions

score
interest
claiming protection — * Doctrinal coherency? Rather than seeking exemption or exceptions as in the other set of cases, judges articulate claims in terms of protection
free exercise claim
exercise clause
while — - Bizarre

File 8 - Cases where state interests prevailed

InFinder found 558 terms related to: **beliefs**

judge mishler - -Definitely idiosyncratic!
beliefs
david smith - Another idiosyncrasy
plaintiffs' beliefs
graduation exercises - Ditto
diploma
government benefits
prison officials' beliefs
burdens incident
state conditions
receipt controls
government programs
plaintiffs' claims
centrality
prospect
perjury clause
sincerity
tendency
beings
security considerations

File 9 - Cases where state interests superseded

InFinder found 291 terms related to: **beliefs**

plaintiffs' beliefs
beliefs
diploma
amish beliefs — * Doctrinal coherency? either a reference to Yoder or an inordinate amount of repeats in the case itself
unemployment — * Doctrinal coherency? Expert knowledge tells us this already reaffirmation though.
predicament
pressure
plaintiff parents
holt readers - Idiosyncratic
juror

second commandment - Idiosyncratic? Odd for sure.
observances
objector
holt books
themes
grant
employers
centuries
revelation
evolution

APPENDIX G

CO-OCCURRENCE NODES - USER DEFINED

File 8 - Cases where state interests prevailed

InFinder found 314 terms related to: **compelling**

interest test	- Same significance as in File 9
welfare fraud	- Ditto
state interest	- Ditto
exercise inquiry	
pienta	
fields	
2000bb-1	
projects	
2000bb	
workers' compensation program	- In both files, consistency of discourse
government interests	
precedents	
interest	
border control laws	- In both files, consistency of discourse
government interest	
slabaugh	- Remarkably in both, would seem idiosyncratic
state interests	
centrality	* Doctrinal coherency?
stake	
bowen	- Idiosyncratic - case name
magnitude	
overriding	- Doctrinal synonym
drug laws	- Not surprisingly correlated to compelling interests
fulfillment	
approach	
means	
drugs	
claimant	
exercise rights	
fourth circuit	

File 9 - Cases where state interests superseded

InFinder found 452 terms related to: **compelling**

interest test	- Almost same significance as in file 8
welfare fraud	- Ditto
state interest test	
state interest	- Ditto
student groups	* Originally suspected of idiosyncrasy, but perhaps it is a doctrinal coherency indicator. . .education and children may beat

state interests
fields

state university
licensees
pienta
exercise inquiry
ssn requirement
motorists
ensuring
anomaly
2000bb-1
2000bb
interest
workers' compensation program
state interests
precedents
nebraska officials
border control laws
photograph requirement
projects
slabaugh
government interests
justification
exercise right
magnitude
means

File 8 - Cases where state interests prevailed

InFinder found 1340 terms related to: **state interest**

* Note: remarkable overlap of highly co-occurring concepts

interest claiming protection
state interest
solvency
unemployment compensation statutes
respondents smith
pienta
drug laws
users
lmra
plaintiff principals
overriding
interest
liberty interest
stake
magnitude
drugs
principals
women guards - Idiosyncratic likely, but interesting
state court
sex education policy - Idiosyncratic as well, again interesting that sex ed. would

represent a compelling state interest in this day of reduced family planning support and political / social climate

state
part ii
state interests
claimant
union shop
exercise protection
oregon - Smith! Idiosyncratic.
interest test
relationship standard
exercise rights

File 9 - Cases where state interests superseded

InFinder found 1563 terms related to: **state interest**

interest claiming protection
church group - The next three phrases are all indicators of subject areas where compelling interests of the state are trumped
motorists
student groups
state interest
state university
solvency - This is odd, would be expected to correlate more highly with other set of cases, used as a rationale for state interest in certain policies (i.e. tax or unemployment) being compelling.
unemployment compensation statutes - See above
respondents smith
pienta
drug laws
lmra
photograph requirement
licensees
liberty interest
interest
state interest test
plaintiff principals
ensuring
magnitude
respondents' claim
nebraska officials - Trouble with Nebraska! Prison case idiosyncrasy
overriding
users
licensee
state interests
ssn requirement
stake
principals
drugs

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