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PAIN OF THE UNBORN

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BEFORE THE

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OF THE

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HOUSE OF REPRESENTATIVES

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PAIN OF THE UNBORN

TUESDAY, NOVEMBER 1, 2005

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON THE CONSTITUTION,
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The Subcommittee met, pursuant to notice, at 4 p.m., in Room 2141, Rayburn House Office Building, the Honorable Steve Chabot (Chair of the Subcommittee) presiding.

Mr. CHABOT. The Committee will come to order. If the witnesses would like to make their way up to the table as I begin my opening statement here.

This is the Subcommittee on the Constitution. I am Steve Chabot, the Chairman. Congressman Nadler is the Ranking Member. He will be here very shortly.

The House Constitution Subcommittee convenes today to consider the ability of the unborn to experience pain and the constitutionality of informed consent laws requiring abortion providers to provide pregnant women with information on pain of the unborn.

As President Ronald Reagan stated, "Medical science doctors confirm that when the lives of the unborn are snuffed out, they often feel pain, pain that is long and agonizing."

The topic of pain of the unborn, including whether, how early and to what extent an unborn child feels pain, ignites heated debate, yet 77 percent of the individuals surveyed in an April 2004 Zogby International poll favor a law requiring that women who are 20 weeks or more along in their pregnancy be given information about pain of the unborn before having an abortion.

Addressing this issue is the Unborn Child Pain Awareness Act, which was introduced by Representative Chris Smith and referred to the Energy and Commerce Committee. H.R. 356 defines a pain-capable unborn child as, "an unborn child who has reached a probable stage of development of 20 weeks after fertilization." The bill requires an abortion provider or his agent to provide a pregnant woman with information on pain of the unborn and anesthesia prior to aborting an unborn child capable of feeling pain.

H.R.356 would apply to the approximately 15,000 to 20,000 abortions that are performed each year in the United States on unborn children who are 20 weeks or more past fertilization.

Even individuals in the pro-abortion community recognize that women should be provided information on pain of the unborn. Nancy Keenan, president of NARAL Pro-Choice America, stated that NARAL would not oppose the Unborn Child Pain Awareness Act because women deserve access to this relevant information.

A discussion of pain of the unborn must begin with establishing what the words "feels" and "pain" mean. While some physicians define "feels" to require consciousness, others argue that observed physiological and behavioral responses to stimuli are reliable indicators of pain.

Because the unborn are incapable of verbal expression, the evidence for pain of the unborn must be based on anatomical, functional, physiological and behavioral indicators that are correlated with pain.

The pain of the unborn is not lessened by maternal anesthesia. Anesthesia given to a mother has little or no effect on her unborn child.

Our witnesses today will discuss the unborn's anatomical development, physiological responses to painful stimuli, and, ability to experience pain, perhaps even greater pain than that experienced by older infants, children or adults. They will explain how the evidence supports the conclusion that the unborn experience pain by at least 20 weeks gestation, and perhaps even earlier.

Information on pain of the unborn is relevant to a woman's decision of whether to abort her child. Informed consent provisions that require physicians to provide women with information on pain of the unborn are consistent with the Supreme Court's abortion jurisprudence. In *Planned Parenthood v. Casey,* the Supreme Court upheld Pennsylvania's informed consent provisions that required an abortion provider to notify the pregnant woman of information on gestational age, fetal descriptions, the nature and risks of the procedure, child support, and abortion alternatives.

Seven Justices, Supreme Court Justices, voted to uphold these provisions. According to the plurality opinion, "In attempting to ensure that a woman apprehends—or comprehends the full consequences of her decision, the State furthers the legitimate purpose of reducing the risk that a woman may elect an abortion only to discover later with devastating psychological consequences that her decision was not fully informed. If the information the State requires to be made available to the woman its truthful and not misleading, the requirement may be permissible. We also see no reason why the State may not require doctors to inform a woman seeking an abortion of the availability of materials relating to the consequences to the fetus, even when the those consequences have no direct relation to her health."

Information on pain of the unborn such as that included in the Unborn Child Pain Awareness Act, requires abortion providers to notify pregnant women of truthful information that is not misleading. The requirement to provide information on the pain of the unborn to pregnant women will enable these women to better apprehend the full consequences of their decisions. Such a requirement is fully consistent with the Constitution.

My time has expired.

The gentleman from New York is recognized for 5 minutes for the purpose of making opening statement.

Mr. NADLER. Thank you, Mr. Chairman. I want to join you welcoming our panel today.

Mr. Chairman, while we are often at odds on issues relating to abortion, I think we all agree that informed consent is part of any

meaningful definition of choice. That is why I have long supported educational programs that provide young people with the information they will need in life to make intelligent and responsible decisions about their health, about family planning, and so that they can become responsible citizens.

I do have to admit some trepidation, as I have mentioned in the past, when Congress starts playing doctor, or, in this case, neurologist. I can recall the last time Members of Congress attempted to play neurologist, making off-the-cuff diagnoses of a patient they had never seen and attempting to codify their understanding of that particular patient's condition, the entire affair was an embarrassing fiasco for this institution. It led some of the leaders of this House and the other House denouncing—I am sorry, denying, that they have said what they have said, and I hope that this fiasco will never be repeated.

The last time Professor Caplan was here to testify before our Committee, the markup of the bankruptcy bill went late, and we had to cancel the hearing. Later that evening, without the benefit of a hearing, the House passed legislation dealing with the Schiavo case. That was three bad calls in the matter of a few hours. I would hope that we might have learned something from that experience.

We are not, after all, considering this issue in a vacuum. This discussion is not purely an academic exercise with respect to when a fetus feels pain. We are not simply reviewing the salience to satisfy our curiosity.

Although it is not within our Committee's jurisdiction, it is no secret that our colleague, the gentleman from New Jersey, has introduced a bill that would require health care providers to read a script, a script written into the legislation verbatim, stating as facts certain views on fetal development and the question of pain, facts as stated by Congress which may or may not necessarily agree with the latest scientific determinations, especially as those determinations may change from time to time.

This is an area of active scientific research, and there is no clear consensus within the scientific community on a particular conclusion. I am deeply concerned at the prospect that the Congress settling scientific debates by legislative fiat, which reminds me of the Supreme Soviet decision in Lyshenko affair—and they made a mistake on that one. Congress has already demonstrated that it is not particularly good at that. We should be supporting free inquiry, scientific research and the open and healthy doctor-patient relationship.

I have no doubt that all of our witnesses are sincere in their views. That does not mean they are all correct in their views. I know that Dr. Anand has published his work in peer-reviewed medical journals, has had researchers who have come to very different conclusions. Unfortunately the minority is only permitted one witness, so the deck is stacked in a way that is not particularly conducive to thoughtful inquiry. We could not call here scientists who have reached different conclusions than Dr. Anand.

We have invited Dr. Caplan, because he is one of the Nation's most respected medical ethicists, in the hope that he would be able to provide the Members of this Committee with some guidance on how to approach these issues.

No one should, however, mistake today's hearing for the sort of vigorous inquiry that is the hallmark of proper scientific inquiry. Congress is not very good at doing science, and the manner in which we conduct our deliberations is one part of the reason.

I want to welcome our witnesses. I look forward to your testimony.

Thank you, Mr. Chairman. I yield back the balance of my time.

Mr. CHABOT. Thank you very much.

I would like to introduce our distinguished panel here this afternoon at this time. Our first witness is Dr. K. S. Anand. Dr. Anand is currently appointed as a tenured professor of pediatrics, anesthesiology, pharmacology, neurobiology and developmental sciences in the College of Medicine, University of Arkansas, for Medical Sciences, and is the first recipient of the Morris and Hettie Oakley Endowed Chair in Critical Care Medicine. He has established the pain neurobiology laboratory in Arkansas Children's Hospital Research Institute in Little Rock, Arkansas.

Dr. Anand received his research training as a Rhodes Scholar at the University of Oxford. He completed fellowship training in pediatric critical care medicine at the Massachusetts General Hospital and was appointed as a assistant professor at Emory University.

Dr. Anand has published more than 200 peer-reviewed articles in addition to numerous review articles, book chapters and editorials, and has edited five books and journal issues. His research has received widespread recognition, and he has received numerous extramural grants to support his research activities from the NIH, National Endowment for Health, Blowitz-Ridgeway Foundation and other sources. And we very much appreciate you being here, Doctor.

Our second witness is Dr. Jean Wright. Dr. Wright is the Executive Director and Vice President of Operations for Children's Hospital and Women's Institute at Memorial Health University Medical Center in Savannah, Georgia. She is also Professor and Chair of Pediatrics for Mercer School of Medicine. Dr. Wright is trained in pediatrics and anesthesia, board-certified in both, and certified in the subspecialties of pediatric critical care and anesthesia critical care.

Dr. Wright has been in academic medicine over 20 years, and prior to going to Savannah served at Emory University and Children's Health Care of Atlanta. Dr. Wright currently chairs the Federal Advisory Committee on Fetal Alcohol Syndrome for the CDC. And we welcome you very much as well, Dr. Wright.

Our third witness is Dr. Arthur Caplan. Dr. Caplan is currently the Emanuel and Robert Hart Professor of Bioethics, Chair of the Department of Medical Ethics and the Director of the Center For Bioethics at the University of Pennsylvania in Philadelphia. Prior to going to Penn in 1994, Dr. Caplan taught at the University of Minnesota, University of Pittsburgh, and Columbia University. He was the associate director of the Hastings Center from 1984 to 1987.

Dr. Caplan is the author or editor of over 25 books and over 500 pages in refereed journals of medicine, science, philosophy, bioethics and health policy. He has served on a number of national

and international committees and consulted with many corporations, not-for-profit organizations and consumer organizations.

Dr. Caplan is the recipient of many awards and honors and holds six honorary degrees from colleges and medical schools. He is the fellow of the Hastings Center, the New York Academy of Medicine, College of Physicians of Philadelphia, and the American Association For the Advancement of Science. And we welcome you here as well, Dr. Caplan.

Our final witness is Professor Teresa Stanton Collett. From 1990 through 2003, Professor Collett was a professor of law at South Texas College of Law, where she taught various legal courses. Since 2003, she has served as professor of law at University of St. Thomas College of Law, teaching bioethics, property, and professional responsibility. Professor Collett has also served as a visiting professor at Notre Dame Law School; Washington University School of Law in St. Louis, Missouri; the University of Texas School of Law; the University of Houston Law Center; and the University of Oklahoma College of Law.

Prior to joining South Texas College of Law, Professor Collett was affiliated with the law firm of Crowe & Dunleavy in Oklahoma City, Oklahoma. And we welcome you here as well, Professor.

I want to thank all the witnesses for being here this afternoon, and we want to make sure that you are aware that your testimony will be permitted for 5 minutes, and we actually have a lighting system. When the red light comes on, that means your 5 minutes is up. I won't gavel you down immediately, but we would ask you to keep within that as much as possible. A yellow light will come on letting you know you have a minute to wrap up, and the green light will be on for 4 minutes.

It is also the practice of the Committee to swear in all witnesses appearing before it, so if you would each please stand and raise your right hand.

[Witnesses sworn.]

Mr. CHABOT. All witnesses have indicated in the affirmative.

Without objection, all Members will have 5 legislative days within which to submit additional materials for the record.

And, Dr. Anand, you are recognized for 5 minutes.

TESTIMONY OF SUNNY ANAND, DIRECTOR, PAIN NEUROBIOLOGY LABORATORY, ARKANSAS CHILDREN'S HOSPITAL RESEARCH INSTITUTE, AND PROFESSOR OF PEDIATRICS, ANESTHESIOLOGY, PHARMACOLOGY, AND NEUROBIOLOGY, UNIVERSITY OF ARKANSAS COLLEGE OF MEDICINE

Dr. ANAND. Thank you. I appreciate the invitation to testify before this Committee. I come to you as a researcher in the development of the brain, particularly as it relates to pain perception during fetal and neonatal life. I am not here as a practitioner for procedures required for termination of pregnancy or anesthetic practices related to those procedures.

I think the evidence for and against fetal pain is very uncertain at the present time. There has been a recent attention on this based on a review article that was published in the Journal of the American Medical Association on August 24th. And I will first try to bring up some points to critique that article.

That article was published by Susan Lee and her colleagues at the University of California, San Francisco, and they have done a systematic review of the published literature related to this subject.

First of all, they present pain as a hard-wired system, whereby pain impulses are conducted from receptors through nerves and nerve pathways until so-called perception occurs in the sensory cortex. This is an incorrect view of pain, which is rather outdated. For the last 40 years, medical research has shown, beginning from the gate control theory of pain, that pain reception occurs within a multilayered system with numerous elements of nerve fibers and cells, the functions and the characteristics of which will change depending on the type of pain, the context in which it occurs, as well as other cognitive and behavioral demands at that time, so that the processing of pain and indeed perception of pain doesn't simply occur in the sensory cortex. It can occur at various different levels within the nervous system.

Second, Lee and colleagues presume that the structures used for pain perception in adults are the very same structures used during fetal and neonatal life. The lack of development of these structures is then taken as proof that the fetus does not—or the preterm neonate—would not feel pain until 29 to 30 weeks period of gestation. This is again a flawed line of reasoning.

Many years of careful research in which I have participated has shown that the neonate, or the fetus, is not a little adult;that the mechanisms and structures used for pain processing are very different at different stages of development. Indeed the nervous system will use the elements available at that time, at a particular stage of development, to transduce external and internal stimuli, and pain is an inherent, innate part of this system.

These neural elements during development may not survive, may not be maintained until maturity. They may have only a transient role in conducting pain or pain-related information from the periphery to the central nervous system.

Lastly, I beg to differ with the contention that the perception of pain occurs only in the sensory or the somatosensory cortex. For example, in conscious adults, if you stimulate the sensory cortex, or if you cut it out completely, it will not alter pain perception. Stimulation does not produce pain perception; removing the sensory cortex does not block pain perception.

So if the viability of the sensory cortex is not a necessary criterion for pain perception in adults, why should that be a criterion for fetus and preterm infants and neonates?

Despite this caveat, more recent research shows that there is, indeed, alteration in the activity of cortical centers related to sensory perception, but this may have more to do with the content, but not the context, of the pain experience that is being transduced.

Lastly, I would like to identify that there was ambiguous methodology followed in this review whereby 2,100 articles were obtained from PubMed through a detailed search strategy. And the subsequent disconnect of selecting what evidence to include in the data synthesis did not follow the methods of a systematic review. If I were to review this systematic review, it cannot be replicated, and therefore it calls into question the scientific validity of this approach.

I appreciate the opportunity to present my views.

Mr. CHABOT. Thank you very much, Doctor, and we can get more information in the questioning period, of course.

[The prepared statement of Dr. Anand follows:]

PREPARED STATEMENT OF SUNNY ANAND

A scientific appraisal of Fetal Pain

and Conscious Sensory Perception

Written testimony of:
K. J. S. Anand, MBBS, D.Phil., FAAP, FCCM, FRCPCH.
Morris & Hettie Oakley Endowed Chair of Critical Care Medicine
Professor of Pediatrics, Anesthesiology, Pharmacology, Neurobiology & Developmental Sciences
UAMS College of Medicine
Director, Pain Neurobiology Laboratory
Arkansas Children's Hospital Research Institute

Offered to the

Constitution Subcommittee of the U.S. House of Representatives
U.S. House Committee on the Judiciary
109th United States Congress

In relation to the

Unborn Child Pain Awareness Act of 2005 (H.R. 356)
(Introduced in the House on January 25, 2005)

Address for correspondence:
Dr. K. S. Anand
Arkansas Children's Hospital, slot 900
800 Marshall Street
Little Rock, AR 72212, USA.
Phone: 501-364-1846
Fax: 501-364-3188
Email: anandsunny@uams.edu

Acknowledgements: The contributions of Dr. Barbara Clancy, Associate Professor of Biology, University of Central Arkansas (Conway, AR) and Dr. Bjorn Merker, Professor of Psychology, Uppsala University (Sweden) are gratefully acknowledged in the preparation of this statement.

The topic of fetal pain deserves a scientific appraisal that is independent from the highly controversial and partisan issues surrounding abortion, women's rights, or philosophical projections about the beginning of human life. The implications of this appraisal extend beyond its impact on abortion, on the effects of pain in preterm neonates, on the use of analgesia/ anesthesia during neonatal surgery or intensive care, on fetal surgery and other interventions, and on the long-term effects of early experience on the developing nervous system[1]. Fetal pain was recently the subject of a systematic review, which concluded that fetal perception of pain is unlikely before 29 to 30 weeks of human gestation[2]. The vast majority of premature babies, who require neonatal intensive care or surgical care, are born before 30 weeks gestation. Before translating these findings into clinical practice, it is important to evaluate the conclusions of this multidisciplinary review.

A critique of the recent review:

Closer examination reveals three major flaws in the scientific reasoning followed by Lee and colleagues. First of all, they present pain perception as a 'hard-wired' system in which pain impulses are passively transmitted along sensory nerves, spinothalamic and thalamocortical pathways, until "perception" occurs, via activation of the primary somatosensory cortex[2]. Evidence over the past 40 years has discarded this classical Cartesian view of pain, beginning from the Gate Control Theory of pain[3] and confirmed by reams of clinical and basic science data[4-6]. Pain perception, instead, involves multi-layered networks of nociceptors, nerve fibers, neurons and glia, distributed in multiple spinal and supraspinal areas, forming diverse feed-back and feed-forward loops, whereby the participation, function and neurochemical profiles of these cellular elements are constantly modified by external and internal cues[7, 8]. Signaling of pain at any stage of development depends not only on the context and characteristics of the painful stimulus, but also on the behavioral state and cognitive demands at that time[8]. Fetuses undergoing intrauterine invasive procedures were reported to show coordinated responses signaling the avoidance of tissue injury[9].

Secondly, Lee and colleagues incorrectly assume that pain perception during fetal or neonatal development must engage the same structures involved in pain processing as those used by human adults. Lack of development of these areas is then used to support the argument that fetuses do not feel pain until late gestation[2]. Many years of careful, painstaking research shows that the fetus or neonate is not a "little adult", that the structures and mechanisms used for pain processing during fetal or neonatal life are unique and completely different from those used by adults, and that many of these structures/mechanisms are not maintained beyond specific periods of early development[10, 11]. The immature pain system thus plays a signaling role during each stage of development and may use the neural elements available at that time to fulfill this role[12]. Evolutionary theory posits that emotions necessary for survival will develop as early as possible during ontogeny. If starvation and injury are the greatest threats to newborn survival, then hunger and pain may be the earliest homeostatic emotions to develop in the fetus[13, 14].

Lastly, Lee et al. propose that activation of the sensory cortex is a necessary criterion for pain "perception" to occur in the fetus[2]. The lack of evidence for pain-specific thalamocortical connections in fetal life thus supports their claim against fetal pain. This line of reasoning, however, ignores clinical data showing that ablation or stimulation of the primary somatosensory cortex does not alter pain perception in adults, whereas thalamic ablation or stimulation does[15-18].

Pain is now viewed as a homeostatic emotion, with the thalamus playing a central role in pain processing and regulating the spinal-brainstem-spinal loops that mediate descending facilitation or inhibition depending on the context of pain[14, 19]. Fetal development of the thalamus occurs much earlier than the sensory cortex[20-22], but functional evidence for thalamic sensory processing will require novel neuroimaging techniques[23] or the recording thalamic field potentials[18] from fetuses. If cortical activity is not required for pain perception in adults, why should it be a necessary criterion for fetuses? Despite this caveat, robust cortical activity occurs in preterm neonates exposed to tactile or painful stimuli[24], which may be correlates of sensory content or its context and certainly imply conscious perception.

In addition to their scientific rationale, we question their use of systematic review methodology. Lee and colleagues report a search strategy that identified 2,106 articles in PubMed as a starting point for their review[2]. Subsequent methods, however, deviate from the evidence-based methods for systematic reviews, showing a significant disconnect between data acquisition and analysis. For example, the criteria used for selection of relevant articles (from which the evidence was extracted), independent assessments of study quality, the process used for rejecting relevant articles, or methods used for data synthesis were not stated. Methods for the systematic review of observational studies[25] were not followed and alternative methods were not described. Sixteen of their listed references could not be accessed via PubMed, whereas other relevant studies, for example, on fetal neurosensory processing were not included[26-29]. Inconsistent inclusion of evidence and ambiguous methodology used for data synthesis (such that this systematic review cannot be replicated) raises serious questions about the authors' scientific bias and the validity of their findings.

The criterion of consciousness:

To insist on the evidence for fetal consciousness[2] sets up a criterion that is difficult to measure, prove, or disprove. As the underlying substratum for all natural phenomena, it has been argued that consciousness is the proof of everything, but there can be no proof for consciousness[15, 30, 31]. Research in this area is particularly difficult because the physical basis of consciousness even in the human adult remains unknown[32]. There is also significant confusion in describing fetal behavioral states, with the frequent interposition of arousal, wakefulness, consciousness, or awareness[33-36], despite significant differences in the definition and correlates of these entities. Whereas consciousness may be abstract and difficult to measure, we recommend conscious perception as perhaps a scientifically measurable entity.

Conscious perception associated with widespread activation of brain areas[37], but the driving force for such activation comes from the reticular activating system (RAS), with inputs from the basal forebrain, locus coeruleus, substantia nigra, ventral tegmentum, and median raphe. Lesions in this system, but not in the thalamus or cortex, lead to a loss of consciousness[30, 37]. From a careful analysis of fetal behavior, with memory and learning serving as the highest order evidence for psychological function in utero, Hepper and Shahidullah infer conscious sensory perception in the fetus[34].

The question remains, however, if the fetus is "aware" of painful stimulation resulting from tissue injury. Biobehavioral data suggest that the fetus mostly remains asleep in utero[36], mediated by cortical inhibitors like adenosine, neurosteroids (pregnanolone, allopregnanolone,

corticotrophin releasing hormone), prostaglandins (Prostaglandin D_2), or low circulating oxygen[33]. Conversely, high circulating levels of neurosteroids like dehydroepiandrosterone (DHEA) during fetal life may activate excitatory n-methyl d-aspartate (NMDA) receptors, resulting in neuronal activation[38]. There is significant confusion whether these hormonal changes cause or result from sleep-like states in the fetus[33, 36]. Mild noxious stimuli are not perceived during sleep, but major tissue injury occurring as a result of abortion or fetal surgery evokes behavioral and physiologic arousal[9], not unlike the fetal responses to other aversive stimuli[34, 39]. Evidence supporting an actively maintained sleep-like state in the fetus rests on EEG and other observations indicating the inhibition of cortical activity[33]. Although evidence questioning the need for cortical activity in conscious perception is reviewed later, general considerations regarding fetal brain development are first considered as a framework for this discussion.

Human brains are well developed prior to birth:

By convention humans are considered an altricial species, underdeveloped at birth, but this notion is based on aspects of human somatic and motoric development and it belies the relatively advanced state of the human brain at birth[40]. Bioinformatics approaches relating brain development in animal species to the human fetus[41] show that more than 2 months before birth, the human brain is at the developmental stage of the newborn macaque, a species considered quite precocial or advanced at birth[42]. Just after birth, human newborns appear to be capable of complex processing including object transformation and rapid statistical processing[43, 44], a strong indication that the neural circuits necessary for perception are functional before birth. With the exception of a surge in connectivity that occurs just before birth[45], many of the neural circuits underlying these behaviors develop during time intervals corresponding to the second trimester of human development[40, 42].

A functional role for neurons in the subplate zone:

The cortex is accepted as the main participant in cognitive function, and subplate neurons are the first cells to populate this region[46]. Neurons in the subplate zone, which later separates to become Layer I of the cortex[46-48], form an early intrinsic synaptic network that communicates using glutamate, GABA, calcium binding proteins, neuropeptides, or acetylcholine[49, 50], with distinct inputs from the thalamus and the neocortex[49].

The subplate zone appears earlier in the somatosensory than in the visual area and reaches four times the width of the somatosensory cortex in the human fetus (2:1 in the monkey), implying that this embryonic structure that expanded during evolution to subserve important sensory functions[51]. Stimulation of the subplate region initiates large NMDA receptor-mediated EPSPs with long durations, influencing the development of cortical circuits in the neonate[52]. Subplate neurons are the source of the earliest peptidergic activity in the cortex[53]. Intensive differentiation of the subplate neurons occurs between 17 and 25 weeks of gestation, with various types of afferent fibers, at least five neuronal types (polymorphous, fusiform, multipolar, normal, and inverted pyramidal neurons), large dendritic sizes and axonal patterns supporting a functional role during development[22, 54, 55]. Changes in the MRI lamination pattern of the human fetal cerebral cortex are predominantly caused by changes in the subplate zone[56].

A portion of subplate neurons will die during development, therefore, they were simply assigned a "shepherding" function in development, to guide other migrating neurons and to serve as a waiting zone for later, more essential connections[51, 57]. Under this conventional model, subplate cells that persist in the deep cortex till maturity are viewed simply as a vestigial neural population[58, 59]. But brain cells as vestigial developmental remnants would imply a huge waste of metabolic support – large proportions of spinal cord neurons also die prior to maturity with no suggestions that the remaining neurons are vestigal[60]. Neuronal modeling studies indicate the most efficient communication strategy might be to distribute sparse connections across time and space[61], something that the subplate neurons are optimally positioned to do[52]. The persistence of subplate cells through maturity, their location in the cortical fiber tracts, and their connections throughout the cortical layers, indicate their vital role in mature cortical function.

During development, subplate neurons serve as targets for cortical and thalamic afferents[48-50], as pathway pioneers for corticothalamic efferents[62] and as necessary participants in the formation of ocular dominance columns[63]. They likely coordinate receptive fields with orientation maps[64] and play a role in gyrification[48]. They are particularly susceptible to the preterm injuries that trigger cognitive and sensory deficits, a susceptibility that decreases as the human fetus ages[65].

Unlike the subplate cells in the deep cortex, those in the most superficial layers of cortex will die upon maturity, leaving behind a convergence of connectivity that evolves into the first functional developmental circuits[47, 48]. This connectivity pattern strongly correlates with a unique marker for primate conscious perception, the behaviorally relevant N1 evoked response, an EEG deflection recorded following sensory stimuli. Changes in the N1 component of a ERP accurately predict sensory perception in primates[66], as a response initiated in cortical layer I[67]. These superficial connections, initially forged in the subplate zone, are components of an interactive strategy for cognitive processing, within which sensory information is primed, guided and interpreted[67, 68]. Having examined the rationale and evidence for a functional subplate zone, which is active in the second trimester human fetus, we can return to the question of whether cortical activation is necessary conscious perception.

Conscious perception can occur without the cerebral cortex:
Half a century ago, the neurosurgeon Wilder Penfield and physiologist Herbert Jasper noted that large cortical excisions, even as radical as hemispherectomy, were made while communicating with their patients and occurred without interrupting the patient's continuity of consciousness[69]. Surgical removal of the cerebral cortex deprived their patients of certain forms of information or discriminative capacities, but not of consciousness itself. Based on such findings from more than 750 patients with intractable epilepsy, they proposed that *"the highest integrative functions of the brain are not completed at the cortical level, but in a system of highly convergent subcortical structures supplying the key mechanism of consciousness"* [69]. Electrical stimulation of cortical areas before excision revealed that the reflective, critical conscious capacities of their patients co-existed with stimulation-induced effects (elaborate fantasy, dream-like experiences or hallucinations), suggesting an independence of the observing function of consciousness and its cortical contents[69].

Some epileptic seizures, typically initiated with a discrete lapse of consciousness, show a symmetrical bilateral coincidence of even the first abnormal spike in the EEG, which seemed

incompatible with epileptic spread across the callosal interhemispheric pathways[70]. This suggested paroxysmal activity in subcortical regions that are symmetrically and radially connected with both cerebral hemispheres[69]. A specific and selective malfunction of consciousness occurs in seizures of absence epilepsy, associated with the distinctive EEG pattern of bilateral, synchronously evolving spike and wave discharges. This EEG pattern was not evoked by stimulation of any cortical area, but was experimentally produced by stimulation of the midline thalamus by Jasper and others[71, 72]. Edelman and colleagues have also discussed the criteria for consciousness in animal species[73, 74] and concluded that a functional cerebral cortex is not necessary for conscious perception.

A subcortical system, mediating the organization of conscious perception and volitional behavior, mainly includes the basal ganglia, medial thalamus (midline, intralaminar and reticular nuclei), ventrolateral thalamus, substantia nigra, ventral tegmental area, superior colliculus, median raphe, and the midbrain and pontine reticular formation. This system, critical for consciousness, does not function *"by itself alone, independent of the cortex"*, but *"by means of employment of various cortical areas"*[69]. That intact forebrain commissures are not required for high levels of cognitive function[75] provides further evidence for its role in the integration of bilateral cerebral cortical areas, radially and symmetrically related to this midline system[76, 77]. Additional evidence for the role of subcortical processing in conscious sensory perception comes from the Sprague effect described in cats[78, 79]. Experimental inactivation of the cortex at the junction of occipital, parietal, and temporal lobes by reversible cooling leads to unilateral neglect of stimuli from the opposite side, whereas cooling of the superior colliculus opposite to the cortical inactivation seems to "cure" this unilateral defect[80, 81]. Similar correction of the neglect caused by frontal cortical damage was observed in a human patient following midbrain damage on the opposite side[82].

Confirmatory clinical evidence for conscious perception mediated by this subcortical system comes from infants and children with hydranencephaly, with minimal or no cortical tissue[83, 84]. Despite the total or near-total absence of the cerebral cortex, these children clearly possess discriminative awareness, for example, distinguishing familiar from unfamiliar people and environments, social interaction, functional vision, orienting, musical preferences, appropriate affective responses, and associative learning[85].

Multiple lines of evidence reviewed above, in fact, conclusively present the alternative view that anatomical development or functional activity of the cortex is not required for conscious sensory perception. Consistent with this view are observations that (a) children with hydranencephaly consistently respond to pain or pleasure in a conscious coordinated manner[85-87] similar to intact children, (b) preterm neonates or adolescents with parenchymal brain injury have impaired cortical function, yet they mount biobehavioral responses to pain indistinguishable from those of unimpaired controls[88, 89], and (c) patients in a persistent vegetative state present evidence for the conscious perception of self and environment[90, 91], including the capacity to experience pain[91].

Summary and conclusions:

The conclusions of Lee and colleagues[2] regarding fetal pain are flawed, because they ignore a large body of research related to pain processing in the brain, present a faulty scientific rationale and use inconsistent methodology for their systematic review. Based on the available scientific

evidence, we cannot dismiss the high likelihood of fetal pain perception before the third trimester of human gestation. When developmental time is "translated" across experimental species to humans, it is clear that functionally effective patterns of sensory processing develop during the second trimester in the fetal thalamus. Many thalamocortical interactions located in the subplate zone persist into maturity, thus providing a functional template for subsequent cortical processing. Several lines of evidence indicate that consciousness depends on a subcortical system, whereas the contents of consciousness are selectively located in cortical areas. Ablation or stimulation cortical areas do not block or cause pain perception in adults, whereas thalamic ablation or stimulation does. It is likely, therefore, that thalamic nuclei play a central role in conscious pain perception. Fetal development of the thalamus occurs much earlier than the sensory cortex, providing the substrate and mechanisms for conscious pain perception well before the third trimester of human gestation.

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Mr. CHABOT. Dr. Wright, you are recognized for 5 minutes.

TESTIMONY OF JEAN WRIGHT, PROFESSOR AND CHAIR OF PEDIATRICS, MERCER SCHOOL OF MEDICINE

Dr. WRIGHT. Thank you, Mr. Chair, Members of the Committee.

As you heard my introduction, I spent my career in the care and anesthesia of critically ill children, and I have testified now twice on this subject here on the Hill as well as testified in many States. The opinions I present today are my own, and I don't represent any group during this time.

It is interesting. My own personal sojourn as a clinician parallels a lot of the changes that we are talking about with respect to fetal pain. When I began over 25 years ago in my practice, I would take a premature baby to the operating room, paralyze that infant, not give it any pain medication, and we would do a heart operation or abdominal operation simply because we felt the child was too sick for anesthesia. Never in our clinical dialogue did we ever think the child doesn't feel pain. We just felt we couldn't give an anesthetic in a safe manner.

By the end of the '80's, data had come out from Dr. Anand, from Dr. Nancy Green, from Paul Hickey, from Glover, from many others that showed us, yes, we could administer anesthetics safely, and not only could we do it safely, it would change the outcome of that child.

You know, it then became apparent to us, no wonder many of these preterm babies when they came back to the neonatal intensive care unit looked so devastated. In fact, many of them didn't survive, which at that time sort of reinforced our presumption that they were too sick for anesthesia. But with time, with better science, we began to provide anesthesia for those preterm babies, and, in fact, we saw that their outcomes improved.

However, as the '80's progressed, new information continued to come forward, and our day-to-day practice of pediatric anesthesia had to change. At this point in time, it became unconscionable for any of us to take a child to the operating room or do something painful without providing it an anesthetic. For us, the question was not, does the child feel pain, or if the child feels pain, the question was, how are we going to block the pain?

So I would say, I think this dialogue today is actually 25 years lagging behind our clinical practice.

Well, that was 20 years ago. If you came back with me to Savannah tonight and came to our neonatal intensive care unit, we would stand between the bed of a 23-week infant, a 26-week infant, and you would not need a congressional hearing to figure out whether that infant feels pain. We roll back the sheets or the blanket, and you would look to the facial expression, their response to the heel stick, you would understand that.

Now we know that when *Roe v. Wade* was decided, 28 weeks was the time of viability. Today we look at 23, 24 weeks. So every single day we have a perfect window into the womb to look at how that child processes pain, and because of the work of Sunny and other researchers, we continue to change our bedside practice.

Our previously held assumptions about these tiny babies had to be set aside, and we began to understand the fight-or-flight hor-

mone response, their heart rate response, their sympathetic response. We went so far as to invest in special beds and lighting and even sound detection to minimize anything that would be seen as stressful, even something as simple as a heel stick.

In the 1990's, many of our NIC units did not have any uniform approach to approaching pain in the NIC unit. Today they do. Intensive care units have a standardized approach. We monitor all the things that I just mentioned. We respect the pain. We respect the stress. We do everything we can to avoid it, and we treat it when present. Today, pain relief is an important step to generating a healthy outcome.

Well, with that knowledge explosion in the field of pain development in the fetus, as I mentioned, the world of anesthesia changed, and, you know, I guess I would use a phrase, the sound barrier, particularly in the area of partial-birth abortion, or the discussion around partial-birth abortion broke the sound barrier around this whole topic of fetal pain. It was in the mid-'90's when I was here and we were discussing that legislation and we began to talk about pain in the third trimester, but now we know that it is not just the third trimester, but it is as early as 20 weeks, and there is data that shows 16 weeks and even earlier, many of these infants feel pain and have negative outcomes from it.

You know, as a mother I look at this whole topic, and I think about it every time I take my daughter to the doctor. Her first question to me is, "Mommy, is this going to hurt?" And as a mother I feel like it is my duty to find out that information and to do everything I can to keep her from a painful or stressful situation.

Well, that is what we are asking today. We are asking for legislation that allows that question to be asked by mothers, and for them to be given clear, scientific information that outlines that pain development. You know, we believe that to do less than that would not be giving good informed consent as a clinician.

I will stop right there.

Mr. CHABOT. Thank you very much, Doctor.

[The prepared statement of Dr. Wright follows:]

PREPARED STATEMENT OF JEAN A. WRIGHT

BACKGROUND

I am a physician who has specialized in the care and anesthesia of critically ill infants, newborns, children and adolescents my entire career. I now head a children's and women's hospital within a larger medical center in Savannah. I have testified before two Congressional subcommittees on this or a similarly related topic, and have testified on the same subject in several state legislative bodies. The opinions I render today are my own, and do not represent any group.

I am trained in the specialties of Pediatrics and Anesthesia, and am Board Certified by both. In addition, I am board certified in Pediatric Critical Care Medicine, and similarly hold the Anesthesia special qualifications in Critical Care Medicine. I continue to practice medicine in addition to my administrative responsibilities.

HISTORICAL PERSPECTIVE

My own personal sojourn in medicine historically reflects the changes in this field of medicine, and the incorporation of new information into clinical practice. My experience and practice in this discipline over the past 25 years mirrors that of countless others who cared for the critically ill child. I entered the field of pediatric anesthesia and intensive care in the early 1980's. Twenty-five years ago, it would have been common practice to take a critically ill premature infant to the operating room for major abdominal surgery and provide little or no pain management. Our knowl-

edge of pain and its importance in the overall outcome of the child was unknown, and not part of our clinical decision-making.

For many of the procedures, we felt the premature and newborn infants were simply "too sick and too small" for anesthesia and pain relief. We did not feel that their immature bodies could withstand an anesthetic along with their procedure. Little did we know that in our avoidance of anesthesia, we were in fact creating a more stressful and more harmful environment for these vulnerable patients. We often relied on neuromuscular blocking drugs to hold the infant motionless during the procedure. Their motionless body did not tell the internal story of what they were feeling and perceiving in regards to pain. Today, in hindsight, we now understand that the infant was often returned to the neonatal intensive care unit in a more debilitated state than when they left it pre-operatively. We recognized then, and better understand now that it took them days to stabilize, recover, and begin to gain weight, and return to their pre-operative state. And we saw many infants that never seemed to recover from the procedure.

CHANGING THE PRACTICE OF PEDIATRIC ANESTHESIA

However, in the 1980's, new information began to surface, and in response to this new body of scientific knowledge, our clinical practices of pediatric anesthesia and intensive care had to change.

The practice of pediatric anesthesia for the premature and newborn infant began to incorporate the use of narcotics and other analgesics on a regular basis. Soon it became unacceptable to consider taking an infant to the operating room for major heart or abdominal surgery without recognizing the stress response this would generate in the infant, and developing an anesthetic plan that would safely block or blunt those responses. By the end of the 1980's, the work of Dr. Anand, Dr. Hickey, Dr. Ainsley-Green and others surfaced in a myriad of our most respected American and British Journals. Their elegant work, along with the works of others, demonstrated that this pain response in the infant was not an inconsequential byproduct of a surgical procedure that could be ignored at the anesthesiologist's whim or personal choosing. For us practicing in the field, it was not a question of "if the premature or term infant felt pain" . . . it was "how do we block the pain to improve the child's outcome." For us the question became "how," not "if."

EXTENSION TO CARE IN THE NEONATAL INTENSIVE CARE UNITS

That was twenty years ago. Today, if you walk with me in our neonatal intensive care unit, you will see the same concern exhibited for our tiniest of all infants. The concern about how to block pain, how to eliminate stress, how to improve survival, and how to minimize the complications that frequently accompany premature infants is on the forefront of the care-givers mind. Viability for the premature infant has long since passed the 28 week gestational age definition that existed when *Roe v. Wade* was decided. For some infants, viability has been pushed back to 23–24 weeks. And so many of our neonatal units now have infants of 23 weeks and older gestational ages.

Because of the work of many researchers in the fields of pediatric anesthesia, their scientific inquiry led to a change in practice. Early in the 1990's, many neonatal units considered the infants too weak or sick for pain-relieving medications. Our previously held assumptions are replaced with first hand observations of these tiny patients, with monitoring of the hormones released from the neuro-humoral axis (our fight and flight hormones), and with a clearer understanding of the development of pain pathways in the fetus. We invest in expensive beds to eliminate noise and pain, and in a care plan that minimizes painful sticks and pokes. We now regard even the pain of a simple heel stick for a routine blood sample.

In the early 1990's many neonatal intensive care units did not have uniform approaches to minimizing painful events, or pre-treating infants prior to painful and stressful procedures. Today they do. We are so mindful of even the stress of noise and touch, that neonatal intensive care units monitor the sound level, and minimize the number of times an infant is handled, poked or stress, . . . all in the name of decreasing pain and stress, and improving clinical outcomes. We respect the pain and the stress, we do everything we can to avoid it, and we treat it when present.

Today, pain relief is an important step to generating a healthy outcome. Today with the survival of 23 and 24 week infants, we no longer speculate as to whether they feel pain. We understand it, try to avoid it, and treat it when appropriate.

THE DISCONNECT BETWEEN PAIN IN THE NEONATE AND PAIN IN THE FETUS

With the knowledge explosion in the field of pain development in the fetus, the world of pediatric anesthesia and neonatal intensive care changed. Why did this

same information not change the world for the unborn? To regard pain in the unborn required that we consider pain during in utero surgical procedures, but also pain to the unborn during an abortion. Furthermore to recognize the unborn's ability to perceive pain would require that we disclose that information to the mother prior to the procedure as part of the informed consent. Perhaps, with that information at hand, the mother might change her position regarding an abortion for her unborn. Therefore the scientific information regarding pain in the unborn was not integrated with the dialogue around the procedures of abortion.

In the mid 1990's the discussion around partial-birth abortion broke the sound barrier around fetal pain. A discourse followed around whether the infant felt pain, whether maternal anesthesia could or would treat the pain, and whether informed consent for the procedure should disclose the possibility of pain to the unborn. Discussions on partial birth abortion brought into focus the developmental realities of the infant in the 3rd trimester, and juxtaposed that stage of human development with its ex-uterine counterpart, the preterm infant. Further scientific discoveries over the past decade have only served to underscore the anatomy and physiology of the pain pathways in the unborn and preterm infants. Now several states have begun to wrestle with the legislative aspects of both protecting their most vulnerable subjects from pain, and from informing their mothers of its presence and its need for treatment.

THE ROLE OF INFORMED CONSENT

As a mother myself, every procedure I face with my own child is preceded by her first question, "Mommy, will this hurt?" It is my natural maternal response is to try to avoid all forms of pain and suffering for my child. As a parent I want to know about the possibility of pain, and my child (if old enough) wants to know as well. But for the child unable to speak, or unable to understand the upcoming flu shot or laceration repair, the parent stands in the gap gathering clinically relevant information, and exercising prevention and protection against harmful or painful situations. It is our question to ask, "Will my child feel pain?"

Parents are entitled to this information for their children. They need it explained in a clear and meaningful way that they as laypeople can understand. This standard exists for children born; now we raise the standard and ask that it exist for those unborn. "Will this surgery or procedure on my premature baby cause pain? What will be done to alleviate the pain and suffering?" We should answer those questions as clearly for procedures concerning the unborn as the born.

WHAT WILL WE TELL THEM?

Beginning as early as 6 weeks of development, tiny pain fibers pepper the face and oral mucosa. The spread of these unique fibers proceeds in a head to toe fashion until by the 20th week, they cover the entire body. Not only do these fibers exist, they do so with greater density per sq inch than in the adult.

These fibers will connect with the spinal cord, and then connect with fibers that ascend to the thalamus and cortex. By the 10–12th week, the cortex is developing, and by the 15th week, the fibers from below have penetrated into the cortex.

Studies at 16 weeks and beyond show hormonal responses to painful stimuli that exactly duplicate the responses that the infant and adult possess. The critical difference is that the unborn lacks the ability to modulate itself in response to this pain. Therefore, the responses of hormones to painful procedures show a 3–5 x surge in response. This ability to down-regulate the response in light of painful stimuli will not exist until the unborn child is nearly full term in its gestational age. Further studies demonstrated that the magnitude of pain response reflected the magnitude of the stimulus and blocking the pain receptors with narcotics, blocked the hormonal surge. By 19–20 weeks, EEG recordings are readily documented, and somatosensory evoked potentials (SSEP) are seen by 24 weeks.

After 20 weeks of gestation, an unborn child has all the prerequisite anatomy, physiology, hormones, neurotransmitters, and electrical current to "close the loop" and create the conditions needed to perceive pain. In a fashion similar to explaining the electrical wiring to a new house, we would explain that the circuit is complete from skin to brain and back. The hormones and EEGs and ultrasounds record the pain response, and our therapies with narcotics demonstrate our ability to adequately block them. Therefore, any procedure performed on an unborn child after 20 weeks should take this into consideration.

- "Can the unborn fetus feel pain at this stage of development," we would be asked.
- "Is there something that can be given to alleviate the pain?"

• And we would answer, "Yes," to both.

WHY ISN'T TREATING THE MOTHER ENOUGH FOR THE CHILD?

Most obstetrical anesthetic care plans use spinal, caudal, epidural or other forms of nerve blocks to interrupt the cause of pain and the perception of pain. We refer to this as regional anesthesia. The sensory nerves that innervate the abdominal wall and the lower pelvic structures are anesthetized in the same manner that a tooth is numbed by a nerve block with Novocain at the dentist. The mother's specific nerves, or nerves that innervate the perineum, are blocked by these regional anesthetic techniques. While this serves as excellent anesthesia for the mother, it provides no anesthetic relief to the unborn child.

Advances in intra-uterine surgery have required more detailed thinking about pain management of the unborn during these operations. In essence, two anesthetics are planned. One for the mother and one for the unborn child. If an intravenous anesthetic is used, such as a narcotic, it must go through the mother's circulation, and then enter the fetus' circulation, and the reach the fetal brain, in order to achieve pain relief. Dosing via this route must be such to achieve a safe level of anesthetic in the unborn. Similarly, doses of narcotics may be given directly into the amniotic sac, or into the vein of fetus. Experience with premature infants shows us that the dose of narcotic is small, and can be given safely, and is inexpensive, and is effective in blocking pain and improving outcomes.

CONCLUSION

The development of the perception of pain begins at the 6th week of life. By 20 weeks, and perhaps even earlier, all the essential components of anatomy, physiology, and neurobiology exist to transmit painful sensations from the skin to the spinal cord and to the brain.

Infants in the neonatal intensive care unit give us a clear picture into life in the womb for the unborn fetus age 23–40 week gestation. Our understanding of the presence of pain, and the need to clinically treat this pain in the premature infant leads us to understand the presence of pain, and the need to treat pain in the unborn fetus of the same gestational age.

Our conscience as clinicians requires us to apply the same standards of informed consent that we would to any other patient in a same or similar situation. We no longer can ignore the fact that maternal anesthesia treats the mother's pain perception during these procedures, but leaves the unborn with no pain protection.

Our knowledge of this field has changed our clinical practice and now the legislative issues must change as well.

Mr. CHABOT. Dr. Caplan, you are recognized for 5 minutes.

TESTIMONY OF DR. ARTHUR CAPLAN, DIRECTOR, CENTER FOR BIOETHICS, AND CHAIR, DEPARTMENT OF MEDICAL ETHICS, UNIVERSITY OF PENNSYLVANIA

Mr. CAPLAN. Thank you, Mr. Chairman and Members of the Subcommittee, for the opportunity to testify before you in this legislation. I know you have the written testimony there, so I am going to narrow my remarks down to four subjects.

First, is there consensus on fetal pain? I am not an expert on fetal pain like some on the panel here, but I have access to Children's Hospital of Philadelphia, which is an institution that has many experts in fetal pain there. And so when this hearing came to my attention, I went over and asked them what they thought about fetal pain, when it begins, when is the age of onset, and it is clear to me that there is not a consensus.

Secondly, I want to say a word about risk and benefit as presented in the script that is in the legislation concerning risk to mothers of the administration of pain-relieving analgesics and anesthesia to the fetus.

Third, I am just going to say a word about is it a good idea to get use a script to get informed consent, which is perhaps of less interest to some on the Committee, but is of keen interest to me

in terms of trying to make sure that all Americans get informed consent in research and therapy; and lastly, whether it is a good idea for Congress to come into this area with mandates about how to achieve certain social goals.

Firstly, as I said, I had an opportunity to go over to this hospital. It is full of all kinds of experts, and I basically just asked around to my colleagues, and I got answers back that were all over the place, from 20 weeks, somebody reported they thought perhaps younger. Other people said absolutely not until 24, 26 weeks; all kinds of comments about brain development, all kinds of ideas about what is meant by pain.

I looked in the literature I would tell one of my students to do in pursuing informed consent, and as we have heard, there is a wide spectrum of opinion about when pain begins. The JAMA article that Dr. Anand reports about sets the level at 28 weeks based upon a thorough review in a leading medical journal. Other documents and reports from the United States and Britain said 26 weeks, 24 weeks; some say 20 weeks.

It doesn't matter to me in a sense whether a particular study is right or wrong or beyond critique. That is what scientists do. What matters to me is there is no clear-cut consensus out there. So to mandate a triggerpoint and say this is when it has to be done seems to me to not be consistent with what Congress ought to be doing about invoking the power of science to serve a social or an ethical goal even if it is an admirable or perceived as an important goal. I don't think the consensus is out there to support what is claimed in the legislation.

Secondly, on matters of risk/benefit, there is a lot to be said there. But let me narrow it down to one item: What is told to the mother about the risks that she faces if somebody tries to administer pain-relieving mechanisms to the fetus directly through her body. When this is done, it is usually in the context of fetal surgery.

Again, I have been involved in many review boards that have tried to assess the ethics of fetal surgery. They are tough because you are risking two lives. Normally the risks involved in fetal anesthesia in utero are acceptable because you are trying to save the fetus, you are trying to help the person have a very much wanted child, and mothers will take a lot of risk. But in context we are talking about here, the exact phrasing in the legislation, there may be risk in the administration of anesthesia to the mother, is not at all adequate to what is going on relative to direct administration of pain relief prior to abortion.

So I would urge the Committee to take a close look there and ask the question, is that an adequate informed consent about risk to mother, and will women, in fact, be weighing the risk and benefits appropriately by talking about the other uses of fetal anesthesia which come from the fetal surgery setting, not from situations where someone is going to try and directly go to the fetus from the outside? That is going to be a pretty risky activity not adequately captured, I would suggest, in the legislation right now.

The third point I wanted to mention is just whether scripts make sense for informed consent. And I don't know of any situation in American health care where we give people scripts and say read

them and get informed consent to research or therapy. When people do do that, we actually yell at them and say that isn't informed consent.

Informed consent is a process. Let me put it simply: Not every mother is the same. Not every mother is going to have the same health background. Not every fetus will be the same; some will have terrible genetic deformities, some are going to be hale and hearty. The situations are not well captured by a script, and if you try to achieve informed consent just by reading off a script, I would tell you that is not the standard of ethics that ought to prevail in the United States today in any setting.

So it seems to me the script idea is suspect if what we really want to do is get a good informed consent. And for the reasons I mentioned, the script that is there perhaps is inadequate.

Lastly, I think it is not a good idea for Congress to try and practice medicine. I understand the subject is one of grave concern to many people, but it seems to me physicians hold different views about this matter. What we have to do is encourage them and urge them to give information to their patients, to have those dialogues about what they deem important and appropriate to protect the health, welfare and comprehension of their patients. I don't know if that comes well from Congress.

Mr. CHABOT. Thank you very much, Dr. Caplan.

[The prepared statement of Mr. Caplan follows:]

PREPARED STATEMENT OF ARTHUR L. CAPLAN

Thank you Mr. Chair and members of this Committee for the opportunity to testify before you on the proposed legislation which would require that women seeking abortions be informed about the pain to be experienced by their unborn child. My opinion is that this is not legislation that the House should enact. I will present a number of ethical issues that the committee may wish to consider as it examines this legislation.

I will organize my testimony as follows: first, I will address the presumptions behind the proposed legislation and the comment on what is known or in dispute about those presumptions, second, what informed consent requires in terms of risk and benefit disclosure, third, I will offer my opinion as an expert on the ethics of informed consent on the advisability of enacting legislation which mandates the content of a script be read to patients by their physicians, and, lastly, I will offer some comments on the advisability of Congress inserting itself into the practice of medicine in the United States and the morality of intruding into the doctor/patient relationship.

FETAL PAIN

The proposed legislation before the House contends that unborn "children" have the physical structures necessary to experience pain at the age of twenty weeks of development. There is also a contention that giving anesthesia or analgesics to a pregnant woman does not diminish the pain capacity of an unborn fetus. And it maintains that medical science is capable of reducing fetal pain by delivering anesthesia or pain-reducing drugs directly to the "pain capable unborn child."

These are the findings used to them justify an unprecedented requirement in the history of American medicine—the provision by telephone or in person of a required statement by a physician or the physician's agent to offer the option of the use of anesthesia or pain-reducing drugs "to the pain capable unborn child."

The question this committee must carefully consider is whether there is as a matter of empirical fact consensus about when a fetus is capable of feeling pain. If the rationale for mandating disclosure about techniques to minimize fetal pain prior to abortion rests on science and not the whim or presumption (and I use those terms intentionally) of non-scientists and non-physicians then there must be clear consensus on the part of the medical profession that at twenty weeks a fetus is pain-capable.

This is an enormous body of evidence which shows that the presumption of medical consensus does not exist about the question of when a fetus becomes pain-capable.

A variety of groups and commissions in the United Kingdom and researchers in the United States and other nations have, in recent years, examined the question of when a fetus can feel pain. None of them has reached a consensus that is reflected in the proposed legislation.

For example, five years ago the Commission of Inquiry into Fetal Sentience in the House of Lords in England looked at the question of when can a fetus feel pain. They found that a fetus may be able to sense some "form of pain sensation or suffering" when the cortex has begun forming connections with the nerves that transmit pain signals.

This occurs "after 23 weeks of growth."

"By 24 weeks after conception the brain is sufficiently developed to process signals received via the thalamus in the cortex." The noted that, "While the capacity for an experience of pain comparable to that in a newborn baby is certainly present by 24 weeks after conception, there are conflicting views about the sensations experienced in the earlier stages of development."

A year later another distinguished group of physicians from the Royal College of Obstetricians and Gynecologists in the United Kingdom examined the same issue. The panel consisted of experts in fetal development, law and bioethics.

The group determined that a fetus can only feel pain after nerve connections became established between two parts of its brain: the cortex and the thalamus. This happens about 26 weeks from conception. Professor Maria Fitzgerald of University College London, author of the working group's report, said that "little sensory input" reaches the brain of the developing fetus before 26 weeks. "Therefore reactions to noxious stimuli cannot be interpreted as feeling or perceiving pain." W.G Derbyshire writing in the Bulletin of the American Pain Society in August, 2003 basically concurred with the view that the fetus becomes pain capable at 26 weeks.

This year a meta-study—a review of existing medical studies into fetal pain—was published in the Journal of the American Medical Association (JAMA). The paper concluded that in reviewing all recent published studies that a fetus's neurological pathways that allow for the "conscious perception of pain" do not function until after 28 weeks' gestation.

It is possible to criticize each of these studies and reports. And there are many more such reports and studies with different conclusions. But that is precisely the point the Congress must carefully reflect upon before enacting any legislation pertaining to fetal pain.

There is no consensus among the medical and scientific experts about precisely when a fetus becomes pain-capable. Some put the point at 28 weeks. Others say 26 or 24 and still others younger still. But, without a clear consensus legislation mandating that a health provider or physician represent something as a fact which is not known to be true or agreed upon by the majority of medical and scientific experts as valid would not only be poor public policy it would set a terrible precedent for other topics where Congress might choose to mandate disclosures about "facts" for political or even ethical reasons which have no foundation in science or medicine.

Mandating the provision of information as factual or as the standard of care or as a matter of consensus among experts when the information is none of these could open the door to an enormous slippery slope regarding what those seeking health care are told. In order to achieve political ends even well-intended ends it is exceedingly dangerous as history shows to try and bend science to serve political goals.

CONSENT, RISK AND BENEFIT

If Congress decides to mandate the provision of information to women about fetal pain prior to abortion then it will have to carefully consider the content of what is being mandated and whether it adequately reflects the standards of full disclosure of risk and benefit as well as the provision of information about all options and alternatives.

In creating a standard of disclosure about fetal pain and the use of anesthesia it will be necessary to disclose whether or not existing techniques are known to relieve fetal pain, at what age of fetal development and what evidence exists to support such claims.

In notifying women that anesthesia administered to them will not provide pain relief to their fetus again it will be necessary to state with more clarity then appears in this legislation why that is held to be so as a matter of medical consensus and what the probability is of the statement being wrong. Informed consent will also require a more careful and precise delineation of the risks of anesthesia to the woman

if it is directly administered to the fetus. The risk of fetal anesthesia is usually viewed as trivial since they are usually encountered during efforts to use surgery to repair a life-threatening risk to the fetus. They become far less trivial when placed in the context in which death to the mother becomes a possibility with uncertain benefit to the fetus. And some discussion will have to be had about the risks to the woman's health of continuing various stages of a pregnancy versus terminating them depending upon her own health and medical condition.

None of these elements of risk and benefit appear in the mandated information to be disclosed by the proposed legislation. I doubt whether there are many IRBs in the nation which would approve the content of the disclosure as adequate to the standards of informed consent that have come to be expected for new, innovative and untested procedures in medicine.

MANDATING THE CONTENT OF INFORMED CONSENT

One of the most troubling aspects of the proposed legislation is the concept of the government requiring a mandated script or formula be used to secure informed consent in a doctor-patient relationship or health care provider-patient relationship. I know of no other area of health care where Congress or a state government has mandated the content of informed consent.

It is hard to justify a fixed script since every patient is different, not all pregnancies are alike, not all fetuses have the same capacities at the same age of development and not all women face the same set of risks or have the same ability to understand and process information. Informed consent is not a formula—it is an individualized communication between provider and patient. To mandate that one size will fit all when it comes to the issue of fetal pain and what might be done about it is to fly in the face of decades of medical experience about informed consent as well as numerous court cases in which judges have found that simply reading a piece of paper or running through a standard template does not satisfy the requirements of informed consent.

INTERFERENCE WITH THE PRACTICE OF MEDICINE AND THE DOCTOR/PATIENT RELATIONSHIP

It is my opinion that mandating the specific nature of what must be communicated to a woman considering an abortion or any other medical procedure is an unwise interference with the practice of medicine by Congress. One may well wish to discourage women from choosing abortions but forcing providers to read claims about fetal pain is showing no respect for the ability of the medical profession to present information about pregnancy, abortion and fetal pain to women. Moreover, since different physicians hold different views about fetal pain and about the ability to control that pain and since different providers will have different skills when it comes to the safe administration of anesthetic agents or anesthesia to women or fetuses it is overreaching for Congress to insist on precisely what each provider must say to each woman prior to an abortion or any other medical procedure.

In summary there are many issues this committee and Congress must consider before moving forward with the proposed legislation on Pain of the Unborn. There is no consensus among experts about when a fetus becomes pain capable. There is no consensus about the efficacy of existing agents to relief pain in a fetus. There is no single standard that can be set as to what the risks are of attempting to administer pain relief directly to a fetus. This makes it difficult for Congress to claim a sufficient foundation for claims about the pain capabilities of the fetus at various stage of development.

It is also difficult for Congress to mandate the content of informed consent without reducing consent to the provision of a "boilerplate" set of facts—something which we have been advising doctors not to do in the name of informed consent for many decades.

And even with the best of motives intruding into the doctor-patient relationship when the facts are unclear and the risk unknown opens the door to slippery slope with enormous ramifications for the future practice of medicine. This is a door that ought be opened with the greatest of care and caution if at all.

Mr. CHABOT. Professor Collett, you are recognized for 5 minutes.

TESTIMONY OF TERESA S. COLLETT, PROFESSOR OF LAW, UNIVERSITY OF ST. THOMAS SCHOOL OF LAW

Ms. COLLETT. Thank you, Mr. Chairman, Mr. Nadler and Members of the Committee.

I am the author of one of only two existing Law Review articles on this subject. It was published in Pepperdine Law Review in 2003, and I wrote on this topic because, in fact, it was a topic that I anticipated various State legislatures and, in fact, Congress legislating on.

When you look at the most recent abortion textbook for medical schools, edited by Maureen Paul, when she has a chapter on counseling of abortion patients, they speak specifically about the concern that abortion patients express about whether or not the fetus will feel pain during the procedure. And the advice is given in that particular chapter by Ms. Baker that in order to respond to this concern on the part of women seeking abortions, that women should be given information about fetal pain.

In doing research for that particular article, what I found was, in fact, in the United Kingdom, the Royal College of Obstetricians and Gynecologists at the direction of Parliament did an extensive study of this topic under the direction of Dr. Glover, who describes herself as a pro-choice physician, and determined that they should adopt a protocol that requires the use of fetal anesthetic or feticide through the use of potassium chloride or digitalis or some other chemical directly to the heart of the fetus prior to performance of abortion or fetal anesthetic prior to any fetal surgery at age 24 weeks. That protocol then in 1997 was brought into question at the direction of the British Medical Research Group, and they are now discussing lowering it to age 20 weeks.

In fact, the British Medical Association directs that even if there is no incontrovertible evidence, the consensus that Dr. Caplan would demand, that fetuses feel pain, the use of pain relief, when carrying out invasive procedures, may help relieve the anxiety of parents and of health professionals. That last clause, in fact, is what motivated the province of Alberta, our neighbors to the north, to adopt their professional protocol that requires the use of feticide for any abortions at age 20 weeks prior to the performance of an abortion.

Mr. NADLER. Use of what did you say?

Ms. COLLETT. Feticide, the use of digitalis or potassium chloride directly to the heart of the fetus prior to the abortion. The reason for that, Representative Nadler, is because of the techniques of abortion that are used most commonly at that point or beyond that are either dismemberment abortion or the use of the D&E or the D&X abortion, which I am sure Members of this Committee are familiar with, or saline abortions on rare occasions. They are not used very often anymore because of the other two procedures being preferred, according to various CDC statistics. Because of the pain that we may anticipate with either of those procedures, Alberta requires that physicians induce the death of the fetus prior to that. Because of this concern on the part of women, informed consent would require that they be informed.

The final piece of evidence I would bring to the attention of this Committee comes not from foreign jurisdictions, but, interestingly enough, from the most recent trial in California on the Federal partial-birth abortion ban where Dr. Katharine Sheehan testified as an expert witness on behalf of the plaintiffs in challenging the ban, where she said that as medical director for the Planned Parenthood

San Diego clinic, that it was the practice of that clinic to always offer to engage either in feticide or to offer fetal anesthetic for any abortion after—at the period of gestation of 22 weeks or more, and that she had never had a patient decline it.

This is an issue that women who chose, because of perhaps tragic circumstances, to go forward with abortion are concerned about.

Frankly, of all of the many issues related to abortion, if there is one that we can find common ground on, surely it is the issue that where necessity, as the woman perceives it, drives her to this, there should be no unnecessary suffering on the part of the unborn, and that women should have the opportunity to know that there is at least a respectable body of research that suggests that that possibility exists.

Thank you.

Mr. CHABOT. Thank you, Professor Collett.

[The prepared statement of Ms. Collett follows:]

PREPARED STATEMENT OF TERESA STANTON COLLETT

UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON THE JUDICIARY

SUBCOMMITTEE ON THE CONSTITUTION

The Honorable Steve Chabot, Presiding

Hearing to examine the *pain of the unborn*

November 1, 2005

Prepared Testimony of
Professor Teresa Stanton Collett*

Good afternoon Mr. Chairman, Representative Nadler, Members of the Subcommittee, and other distinguished guests. My name is Teresa Stanton Collett and I am a professor of law at the University of St. Thomas School of Law in Minneapolis, Minnesota. I am honored to have been invited to testify on the question of the pain of the unborn. My testimony represents my professional knowledge and opinion as a law professor who writes on the topic of family law, and specifically on the topic of abortion. I am the author of one of only two law review articles dedicated to the topic of fetal pain.[1] My testimony today is not intended to represent the views of my employer, the University of St. Thomas, or any other organization or person.

There has been extensive debate about whether the unborn experience pain during abortion within medical, legal, and political circles for over two and a half decades in this country. In 1980 President Reagan brought this issue squarely into public view with his statement, "when the lives of the unborn are snuffed out [by abortion], they often feel pain, pain that is long and agonizing."[2] Federal and state legislative partial birth abortion bans have insured a continuing public debate over fetal pain.[3] The debate intensified when the world caught a glimpse of life within the womb through the picture of Samuel Armas'

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* Professor of Law, University of St. Thomas School of Law, MSL 400, 1000 LaSalle Avenue, Minneapolis, MN 55403-2015, telephone 651-962-4973, fax (651) 962-4996, email tscollett@stthomas.edu.

[1] See Note, *The Science, Law, and Politics of Fetal Pain Legislation*, 115 Harv. L. Rev. 2010 (2002) (attached as "Appendix A") and Teresa Stanton Collett, *Fetal Pain Legislation: Is It Viable*, 30 PEPP. L. REV. 161 (2003) (attached as "Appendix B").

[2] President Ronald Reagan, Address to the National Religious Broadcasters' Convention (Jan. 30, 1980) available at http://www.americanrhetoric.com/speeches/ronaldreagannrbroadcasters.htm (visited Oct. 30, 2005).

[3] The federal partial birth abortion ban is found at Pub L No 108-105, 117 Stat 1201, codified at 18 USC § 1531. By 2004, thirty-one states had passed similar state bans. Center for Reproductive Rights, *So-Called "Partial Birth Abortion Ban" Legislation by State* (Feb. 2004) available at www.reproductiverights.org/pdf/pub_bp_pba_bystate.pdf.

tiny hand apparently grasping the finger of his perinatal surgeon who was repairing Samuel's spine when he was only twenty-one weeks in gestation.[4] This debate has resulted in legislative proposals that women be informed of the possibility of fetal pain.[5]

The debate intensified again due to the recent publication of an article in the Journal of the American Medical Association that claimed fetal pain could not be established until the 29th or 30th week of gestation.[6] The authors concluded "discussions of fetal pain for abortions performed before the end of the second trimester should be noncompulsory. Fetal anesthesia or analgesia should not be recommended or routinely offered for abortion because current experimental techniques provide unknown fetal benefit and may increase risks for the woman." [7]

This position is contrary to that taken by the British Medical Association based on research undertaken at the request of the British Parliament:

> Whether, and at what stage, a fetus feels pain has been a matter of much recent debate and past practice has been partly influenced by Department of Health advice. Interpretation of the evidence on fetal pain is conflicting with some arguing that the fetus has the potential to feel pain at ten weeks' gestation, others arguing that it is unlikely to feel pain before 26 weeks gestation and still others arguing for some unspecified gestational period in between.
>
> There is clearly a need for further research to provide more conclusive evidence about the experiences and sensations of the fetus in utero. *In the meantime the BMA recommends that, when carrying out any surgical procedures (whether an abortion or a therapeutic intervention) on the fetus in utero, due consideration must be given to appropriate measures for minimising the risk of pain. This should include an assessment of the most recent evidence available. Even if there is no incontrovertible evidence that fetuses feel pain the use of pain relief, when carrying out invasive procedures, may help to relieve the anxiety of the parents and of health professionals.* [8]

Unlike the authors of the JAMA study[9] who err on the side of certainty, absent proof of conscious pain of the unborn, the British Medical Association errs on the side of protecting the women who choose abortion

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[4] Samuel Armas photo (2002), available at http://www.fetal-surgery.com/fs-pics.htm. In utero fetal surgery made the news with reports of successful heart surgery on a 23-week-old fetus. Denise Grady, *Operation on Fetus's Heart Valve Called a "Science Fiction" Success*, N.Y. Times, Feb. 25, 2002, at A1, available at http:// www.nytimes.com/2002/02/25/health/25FETA.html.

[5] *See e.g.* Unborn Child Pain Awareness and Prevention Act of 2005, codified at Ark Code Ann §§20-16-1101 to 1111; and Woman's Right to Know Act, codified at Ga. Code Ann §31-9A-4.

[6] Susan J. Lee, et al., *Fetal Pain: A Multidisciplinary Systematic Review of the Evidence*, 294 JAMA 947 at 952 (2005).

[7] *Id.*

[8] The British Medical Association, *The Law and Ethics of Abortion: BMA Views* (Mar. 1997 revised Dec. 1999), available at http://www.bma.org.uk/ap.nsf/Content/abortion#Ethicalconsideration (last viewed Oct. 30, 2005).

[9] The failure of the lead author of the JAMA article to disclose that she had worked as an attorney at an

as the lesser evil, the health professionals who assist them, and the unborn (whose mothers care about the welfare of their unborn offspring, even when choosing to terminate their pregnancies).[10]

Meanwhile, fetal pain has been the subject of recent judicial review in cases involving the constitutionality the federal partial birth abortion bans. Judge Casey, who called the D & X procedure "gruesome, brutal, barbaric, and uncivilized,"[11] found that abortion procedures "subject fetuses to severe pain."[12] Judge Hamilton arrived at a different conclusion. She wrote that "much of the debate on this issue is based on speculation and inference"[13] and that "the issue of whether fetuses feel pain is unsettled in the scientific community."[14] These diverse opinions arise, in part, due to differing definitions of the words "feel" and "pain."[15]

Competing Definitions of Pain

A. Conscious Appreciation of Pain

The definition of pain used by the authors of the recent JAMA article represents the most restrictive definition of pain. "Pain is a subjective sensory and emotional experience that requires the presence of consciousness to permit recognition of a stimulus as unpleasant."[16] Scientists in this camp define "feels" to mean only those responses that reflect some self-awareness or conscious appreciation of

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abortion advocacy group and that another author was the medical director for an abortion clinic has led to questions about the objectivity of the article. *See e.g.* Marie McCullough, *Medical Journals' New Query*, Philadelphia Inquirer Aug. 27, 2005 available at http://www.philly.com/mld/philly/living/health/12489155.htm.

[10]

[11] Nat'l Abortion Federation v. Ashcroft, 330 F.Supp.2d 436, 479 (S.D.N.Y. 2004).

[12] *Id.*

[13] Planned Parenthood Federation v. Ashcroft, 320 F.Supp.2d 957, 997 (N.D.Cal. 2004)

[14] *Id.* at 1001.

[15] See Fran Lang Porter, et al., Pain and Pain Management in Newborn Infants: A Survey of Physicians and Nurses, 100 Pediatrics 626 (1997) (stating that "ample data now indicate that the neurophysiologic basis for pain is established by the end of the second trimester of pregnancy"); Royal College of Obstetricians and Gynaecologists, Fetal Awareness: Report of a Working Party (1997) (providing that practitioners who undertake termination of pregnancy at 24 weeks or later should consider the requirements for fetal analgesia or sedation prior to fetocide); American Academy of Pediatrics & Canadian Paediatric Society, Committee on Fetus and Newborn, Prevention and Management of Pain and Stress in the Neonate, 105 Pediatrics 454 (2000) (stating that "[b]y late gestation, the fetus has developed the anatomic, neurophysiological, and hormonal components necessary to perceive pain."); Commission of Inquiry into Fetal Sentience, The Rawlinson report (1996) ("the fetus may be able to experience suffering from around 11 weeks of development"), available at www.care.org.uk; Royal College of Physicians and Surgeons of Alberta, Policy on Termination of Pregnancy (2000) (stating that "[i]n some circumstances, in order to reduce suffering where intervention is necessary to terminate pregnancy after 20 weeks/0 days, patient and physician may consider feticide prior to initiating the termination procedure"). See also B.A. Robinson, Can a Fetus Feel Pain?, (2001), available at http://www.religioustolerance.org/abo_ pain.htm.

[16] Susan J. Lee, et al., *Fetal Pain: A Multidisciplinary Systematic Review of the Evidence*, 294 JAMA 947 at 948 (2005)

pain. "Because pain is a psychological construct with emotional content, the experience of pain is modulated by changing emotional input and may need to be learned through life experience."[17]

In the absence of consciousness, doctors in this group argue that the most researchers can conclude is that the human fetus "reacts to physical stimulation."[18] "Whether the fetus feels pain, however, hinges not on its biological development but on its conscious development. Unless it can be shown that the fetus has a conscious appreciation of pain after 26 weeks, then the response to noxious stimulation must still essentially be reflex, exactly as before 26 weeks."[19]

B. Behavioral and Physiological Responses

This requirement of consciousness, as a predicate to the experience of pain, has been rejected by other physicians. These doctors argue that observed physiological[20] and behavioral responses[21] to stimuli are reliable indicators of pain, particularly for those individuals who are incapable of the self-reporting that is seemingly required for identification of self-awareness or consciousness.[22] While conceding the lack of perfect correspondence between behavioral and physiological indicia and the actual experience of pain, these physicians note that self-reports of pain and the actual experience of pain also lack a perfect correspondence.[23] In the absence of the ability to self-report, physical evidence of pain-like responses should be viewed as "infantile forms of self-report and should not be discounted as 'surrogate measures' of pain."[24] In the face of physiological and behavioral responses to noxious stimuli, these physicians assert

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[17] Lee, *Fetal Pain* at 949. *See also* Testimony of Dr. Stuart Derbyshire, Commission of Inquiry into Fetal Sentience (Mar. 6, 1996), available at http:// www.care.org.uk/issues/fs/derbyshr.htm, and Zbigniew Szawarski, *Commentary: Probably No Pain in the Absence of "Self,"* 313 Brit. Med. J. 796 (1996), available at http://www.bmj.com/cgi/content/full/313/7060/796.

[18] Hugh Muir, *When does pain begin?*, The Daily Telegraph, Sept. 28, 1996, at 8. "Groups such as the Birth Control Trust, whose director Ann Furedi co-wrote one of the papers, admit that the foetus reacts to physical stimulation, such as procedures involving needles, from around 12 to 14 weeks. They agree that stress levels can rise in these circumstances. But they argue that the mere reaction to physical stimuli does not automatically indicate the feeling of pain." Id.

[19] *Id.*

[20] Physiological changes include changes in heart rate or the increased production of stress hormones. Parliamentary Office of Science & Tech., Advice to the Department of Health, in Fetal Awareness 3, (Feb. 1997), available at http://www.parliament.uk/post/pn094.pdf.

[21] *Id.* Behavioral changes include withdrawal of affected body parts, crying, and facial expressions. *Id.*

[22] See K.J.S. Anand & Kenneth D. Craig, *Editorial: New Perspectives on the Definition of Pain*, 67 Pain 3 (1996) (stating that "because self-report may be absent or a faulty source of inference, nonverbal behavioral information is often needed and used for pain assessment."). See also American Academy of Pediatrics & Canadian Paediatric Society, Prevention and Management of Pain and Stress in the Neonate, 105 Pediatrics 454 (2000), available at http:// www.aap.orgpolicy/re9945.html.

[23] Anand & Craig, *supra* note 22, at 3.

[24] *Id.* at 5. See also Vivette Glover & Nicholas Fisk, *Do Fetuses Feel Pain?*, 313 Brit. Med. J. 796 (1996)

that the burden of proof shifts to those who challenge the existence of fetal pain rather than having to be borne by those who seek to alleviate it. [25]

C. Neurological Development

Physicians subscribing to the view that fetal pain should be presumed in cases involving physiological and behavioral responses often reinforce their argument by referring to the development of the fetal nervous system. Due to the presence of other witnesses far more well versed in neurological development than myself, I will leave for their testimony a description of the development of the human neurological system.

Suffice it to say, that from the perspective of neurological development, the key to answering the question of whether fetuses experience pain depends primarily upon the development and function of the various regions of the brain. While simple reflex responses can be observed as early as seven weeks of gestation, there is no involvement of the brain. In the absence of any brain activity there can be no perception of pain, according to the current consensus of the medical community. Where medical opinion divides is over whether pain perception by the human fetus is controlled exclusively by the cortex or whether the thalamus and lower brain stem can generate perceptions of pain.

Recent Changes in Medical Standards to Acknowledge the Possibility of Fetal Pain

In May of 1995, the Department of Heath for the United Kingdom commissioned "an update on

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(arguing that fetal stress responses may be the best indices of pain currently available).

[25] John Wyatt, *When Do We Begin to Feel the Pain?*, The Guardian, Oct. 24, 1996, at 2.

> While responsible scientists have a duty to emphasise what they don't know, doctors have a duty of care that should lead them to err on the side of caution. If there is a possibility of lasting harm, we must act in the best interests of our patients even when the evidence is ambiguous. We should, in the words of Glover [a clinical scientist in the psychobiology group at Queen Charlotte's and Chelsea Hospital in London], ' give the foetus the benefit of the doubt', and extend the use of effective pain relief to surgical procedures before birth.

Id. See also S. Vanhatalo & O. Van Nieuwenhuizen, *Fetal Pain, Brain and Development*, May 24, 2000 (stating that the proper response to evidence of fetal response to noxious stimuli is to avoid or treat any possibly noxious stimuli rather than speculate on the possible emotional experiences of pain by the fetus or neonate). See also, Mark Owens, *Pain in Infancy: Conceptual and Methodological Issues*, 20 Pain 213, 230 (Nov. 1984).

> If the assumption that infants experience pain is correct, then the benefits are measured by a decrease in needless human suffering. The cost of a mistaken assumption of infant pain would be to waste the effort. Costs and benefits come down squarely on the side of assuming that infants do experience pain. The burden of proof should be shifted to those who maintain that infants do not feel pain.

Id.

current scientific knowledge" by Professor Maria Fitzgerald.[26] Based on a review of all scientific literature then available, she concluded that a human fetus could only perceive pain after the neural connections are established to the cortex during or after the twenty-sixth week of gestation.[27]

In January 1996, a private British organization, the Christian Action, Research, and Education Trust ("CARE Trust") created the Commission of Inquiry into Fetal Sentience.[28] After almost a year of collecting and evaluating evidence,[29] the Commission found:

> Almost everyone now agrees that unborn babies have the ability to feel pain by 24 weeks after conception and there is a considerable and growing body of evidence that the fetus may be able to experience suffering from around 11 weeks of development. Some commentators point out that the earliest movement in the baby has been observed at 5.5 weeks after conception, and that it may be able to suffer from this stage.[30]

Based upon this finding the Commission recommended that from the early stages of gestation the fetus should be protected from potentially painful procedures by the use of adequate anesthesia."[31] In July 1996, the All-Party Parliamentary Pro-Life Group also produced a paper on fetal pain, which concluded that "the anatomical structures in the fetal nervous system necessary for the appreciation of pain are 'present and functional before the tenth week of intrauterine life.'"[32]

Responding to these and other reports that the human fetus exhibited pain-like responses in utero, the Royal College of Obstetricians and Gynaecologists of Great Britain established a working party to determine whether a fetus might be aware of pain, and if so, what the implications of that determination might be on diagnostic and therapeutic procedures carried out on the fetus, as well as termination of pregnancy when the fetus is not expected to live.[33] In October 1997, the Royal College issued its Working

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[26] Parliamentary Office of Science & Tech., *supra* at 2.
[27] *Id.*
[28] *Id.* The Commission is also referred to by some commentators as the "Rawlinson Commission" in reference to the fact that it was chaired by the Right Honorable Lord Rawlinson of Ewall, PC QC.
[29] Wyatt, supra note 20, at 2.
[30] Commission of Inquiry into Fetal Sentience, *Human Sentience Before Birth* § 2, available at http://www.care.org.uk/resource/pub/fs.fs02.htm.
[31] *Id.* at §8.
[32] Parliamentary Office of Science & Tech., *supra* at 2. See also Muir, *supra* at 8.

> The society's [Society for the Protection of the Unborn Child] current line on foetal pain is based on research by Dr. Peter McCullagh, of the Australian National University in Canberra, and published in July by the All Party Parliamentary Pro-life Group.... Dr. McCullagh argues that it is also possible to make a judgment [about the existence of fetal pain] by establishing the presence of nerve and brain faculties that register pain in developed humans. He concludes that these faculties are likely to be developed by the tenth week of life.

Id.
[33] Royal College of Obstetricians and Gynaecologists, Description of Working Party Report on Fetal

Party Report on Fetal Awareness. Based upon the physiological and behavioral evidence, the Working Party recommended that practitioners who undertake procedures directly on the fetus, or who undertake termination of a pregnancy at 24 weeks or later, should consider the requirements of fetal analgesia or sedation prior to the procedure.[34]

In 1999, the British Department of Health requested that the Medical Research Council review the report of the Royal College and make recommendations as to areas where further scientific research was needed. [35] As a result of their study, members of the Council's expert panel found that the sensory pathways and connections to the cortex necessary for pain perception are present or begin to form at twenty weeks gestation.[36]

In the summer of 2000, the Alberta College modified its policy on termination of pregnancy to "reduce suffering where intervention is necessary to terminate pregnancy after 20 weeks/0 days" by recommending that the fetus be killed via intracardiac injection of potassium chloride prior to initiating the termination procedure.[37]

During testimony regarding the federal partial birth abortion ban before the California federal district court, Dr. Katharine Sheehan, medical director for Planned Parenthood of San Diego and a witness for the plaintiffs, testified that her clinic offered to administer digoxin to induce fetal demise prior to every abortion related to pregnancies that had progressed to twenty-two weeks of gestation or more. Every one of her patients had accepted the offer.[38] This patient response is consistent with the concerns expressed in the chapter on patient counseling in the most recent abortion text medical schools.[39] Dr. Sheehan also testified that Planned Parenthood of Los Angeles routinely offered to induce fetal demise prior to aborting fetuses of twenty-one weeks or older. [40]

Awareness (1997).

[34] *Id.* See also David James, *Recent Advances: Fetal medicine*, 316 Brit. Med. J. 1580 (1998).

[35] Medical Research Council, Summary of Report on Fetal Pain (2001), available at http://www.mrc.ac.uk/index/publications-publications/publications-research_reviews/publications-fetal_pain_summary_report.htm.

[36] See Roger Highfield, *Unborn Child Can Feel Pain at 20 Weeks, Say Researchers*, The Daily Telegraph, Aug. 28, 2001, at 2.

[37] College of Physicians and Surgeons of Alberta, Termination of Pregnancy (2000).

[38] Planned Parenthood Federation v. Ashcroft, Tr. Vol. II at 243:1-2 (N.D.Cal. 2004).

[39] "Patients may be frightened by antiabortion protesters or materials falsely alleging... that abortion causes fetal pain. Giving them facts and valid sources of information usually eliminates these fears." Anne Baker et al., *Informed Consent, Counseling, and Patient Preparation*, in A CLINICIAN'S GUIDE TO MEDICAL AND SURGICAL ABORTION 27, 27 (Maureen Paul et al. eds., 1999).

[40] Planned Parenthood Federation v. Ashcroft, Tr. Vol. II at 244 (N.D.Cal. 2004).

Conclusion

Certainly, the issue of at what point the unborn experience pain is an important one that should inform best medical practice. It is of concern to the women who obtain abortions, the providers who serve them, and the public who demand that we not be indifferent to unnecessary suffering. If there is a single issue in the abortion debate where common ground could be found, one would hope it might be on the issue of insuring that women who obtain abortions at twenty weeks or later be informed of the possibility of fetal pain and their options to relieve that pain.

Thank you, Mister Chairman, for allowing me the time to appear before the committee and to extend my remarks in the form of this written testimony.

Mr. CHABOT. I now recognize myself for 5 minutes for the purpose of asking questions.

I would just note that we are not talking about an insignificant number of abortions after 20 weeks. Each year in this country, I understand there's—depending on the figures, it is somewhere up to 20,000 or so of these types of abortions that take place after 20 weeks.

Professor Collett, let me begin with you if I could, and I will get to the heart of the matter, cut to the chase so to speak.

In your opinion, are informed consent provisions requiring that information on fetal pain and anesthesia be given to pregnant women considering an abortion consistent with the Supreme Court's abortion jurisprudence?

Ms. COLLETT. Yes. *Casey* was quite clear about that. You read a portion of the

Casey plurality opinion, and they go beyond that to give the example of, we think it would be constitutional for the State to require in order for there to be informed consent to a kidney transplant operation that the recipient be supplied with information about the risks to the donor as well as the risks to himself or herself. It is quite clear that simply an informational requirement as has been proposed would pass constitutional muster.

Mr. CHABOT. Thank you.

Dr. Anand, let me turn to you next if I can. In your opinion, at what point does an unborn child likely experience pain, and what evidence best supports that opinion?

Dr. ANAND. Thank you. This is a question that is hotly debated, as Dr. Caplan pointed out, and it is not very clear from a summary of the evidence as it really does not meet the criterion of something that can be turned on or turned off.

The development is a slow and continuous process, and different centers of the brain participate in sensory perception at different stages, so it is very unclear and hard to pinpoint as to exactly when. Yesterday the fetus did not feel pain; today the fetus does feel pain. And it is unlikely that that happens.

What possibly occurs is a gradual increase in the ability of the fetus to recognize some stimuli which may cross a certain threshold of nociception and for those stimuli to be transduced at some points.

My opinion is, based on evidence suggesting that the types of stimulation that will occur during abortion procedures, very likely most fetuses at 20 weeks after conception will be able to perceive that as painful, unpleasant, noxious stimulation.

Mr. CHABOT. Thank you. And is it your opinion that the pain perceived by the unborn is possibly more intense than that perceived by term newborns or older children?

Dr. ANAND. No. There is—that is not my opinion. And I really don't have any data to suggest that that could be true, or the other way. There is——

Mr. CHABOT. Have you heard that opinion expressed by others in your field?

Dr. ANAND. There has been some data to suggest that in preterm neonates, there is a lower threshold to pain than in full-term neo-

nates and in older children or adults. Whether we can extend that back into gestation is not known at this point.

Mr. CHABOT. Thank you.

Dr. Wright, let me ask you, could you please describe some of the responses to noxious or offensive or unpleasant stimuli that you have witnessed in preterm infants?

Dr. WRIGHT. Sure. You know, we know that these pain receptors are unique. When you look at them under a microscope, they don't look like any other kind of cell, and they start on the face, and as doctor Anand said——

Mr. NADLER. Is that true in all stages or only for neonates?

Dr. WRIGHT. Excuse me, sir?

Mr. NADLER. Were you making that as a general statement or only for neonates?

Dr. WRIGHT. I haven't finished the sentence, sir, so I am not quite sure what you are interrupting.

Mr. NADLER. When you said these pain receptors are unique, they don't look like any other kind of cell.

Dr. WRIGHT. Right. They start at 6 weeks of gestation. They cover the entire face even more densely per square inch than adults and cover the entire body. So by the time this baby is 20 weeks of gestation, there are these pain receptors over the entire body, the entire mucosa, the exact same kind that we have as full-term babies and we have as adults. Is that what you are asking?

And because that pain fiber sits there, it connects with the spinal cord and, most importantly, sends messages, sends impulses to the bran to those higher levels and back down. When we put on a clamp on a toe, when we do a heel stick, that is probably the most common thing we do in the neonatal intensive care unit, take a lancet, hit the heel for blood, squeeze that little heel and put it on a piece of blotter paper and insert it in a test tube, those children will withdraw. That is not just a knee-jerk reflex. That's an integrated, full arc up through the brain and back. They grimace, they pull back.

Even the studies of children in utero when they had repeated liver samples or transfusions done either through their liver or through their umbilical cord, those children positioned themselves to avoid noxious stimuli. Dr. Anand used a fancy word, nociception. We would say in Savannah just painful or obnoxious stimuli. They reposition themselves that way.

So to a lay person standing next to a bed, there is no question that that is pain. It is not a hiccup, it is not a reflex. You know, we recognize it for what it is.

Mr. CHABOT. Thank you very much. My time has expired.

The gentleman from New York is recognized for his time as well.

Mr. NADLER. Dr. Anand, do you agree that there is still no consensus within the field on the question of when the fetus starts perceiving pain?

Dr. Anand. Yes, I did.

Mr. NADLER. Thank you.

Also, Dr. Anand and I think Dr. Caplan, while some States have pursued the script approach, the Federal Government so far has not. Do you think we ought to require doctors to read scripts written by Congress on this or other issues?

Let me just broaden that a bit. I have considerable sympathy for a lot of the ideas in this bill and in what I am hearing. The problem I have is Congress directing a specific script which says Congress makes this medical finding. Would you think that that is a good approach, or might it be a better approach to simply say that doctors shall inform the patient or the patient—the prospective mother of what the current state of medical knowledge is in his or her opinion and tell her pros and cons of using anesthesia?

Dr. Anand?

Dr. ANAND. I agree with you. I think there is consensus in the medical and scientific research community that there is a—there is no possibility of pain perception in the first trimester. There is uncertainty in the second trimester. There is no discussion in the third trimester. There is consensus that pain perception is fully developed and——

Mr. NADLER. I am asking you about the script in particular.

Dr. ANAND. With regard to a script, I agree that each medical encounter has specific factors that determine the way in which an interaction occurs between the health care professional and the patient, and so having a script, I think, will be counterproductive in that situation.

I think, however, the health care professional must have this professional responsibility to provide the information that is available at that time.

Mr. NADLER. So a bill that simply said the medical profession should recognize—well, it should exercise its normal responsibility would be preferable?

Dr. ANAND. Yes.

Mr. NADLER. Thank you.

Dr. Caplan.

Dr. CAPLAN. Well, I think the use of a script to achieve informed consent is a mistake, and I think it is a mistake to have Congress do it.

I think that the script that is in the bill is a clear example of this. It asserts more consensus than is true about fetal pain. It doesn't allow the nuance of talking to different women with different backgrounds, different educational levels, and different medical situations, different health situations. It won't be equivalent risk to give fetal anesthesia to a woman who has diabetes and a bunch of other complications and high blood pressure and 40 years old and as it would to somebody who is 22 and very healthy. Using scripts is not the way to achieve informed consent in terms of the nuance of what has to happen in medical care.

Last comment I would make is it seems to me that what we want to do is encourage honest discussion, open discussion about fetal pain capability, about options to control it, but the way to do that is to ask Government agencies to sponsor workshops, to achieve consensus panels, to hold the kinds of retreats and conferences that I go to a lot where people are educated and informed about this.

I don't see it done well by mandating it out of a bill that is going to be one size fits all, and that is not the world in which medicine is practiced.

Mr. NADLER. Well, you are describing how science and medicine normally works. Do you see a useful role for any legislation in this

field, a bill that said that doctors should discuss this with patients, or is that necessary at all?

Dr. CAPLAN. I don't think it is necessary at all. I think what you do is encourage physician education, physician training through outlets like the National Institutes of Health.

Mr. NADLER. Let me ask Dr. Anand the same question.

Dr. ANAND. I think there is—I agree with Dr. Caplan that informed consent is a process, that the interaction between the physician and the patient may occur at one time and may occur repeatedly until the procedure is performed.

So I think medical professionals should be encouraged to develop——

Mr. NADLER. But my question is Dr. Caplan described a process of holding all kinds of colloquiums on training medical professionals as to what their ethical duties are, in telling you about whatever the latest findings on pain are, and the latest findings on the advantages and risks of anesthesia and so forth. Granted that we should certainly do that. Do you see that any legislation is necessary or helpful in that, or is that sufficient?

Mr. CHABOT. The gentleman's time has expired, but you can answer the question.

Dr. ANAND. I feel that practitioners who are using this information should get—should be encouraged to remain up to date regarding this information. And in that sense, some type of continuing medical education should be required; should be required maybe not by law, but by professional standards.

Mr. NADLER. I ask unanimous consent for 1 additional minute.

Mr. CHABOT. Without objection, a half minute.

Mr. NADLER. Thank you.

So do you think a good approach would simply be legislation mandating that kind of continuing medical education on that subject?

Dr. ANAND. I don't think legislation would be the answer. I think there are many other avenues that can be followed in order to encourage research in this area and to demonstrate knowledge in this area.

Mr. NADLER. Thank you very much.

Mr. CHABOT. Gentleman's time has expired.

The gentleman from Arizona Mr. Franks is recognized for 5 minutes.

Mr. FRANKS. Well, thank you, Mr. Chairman.

Mr. Chairman, I have to suggest that I have I am a little troubled by just a lot of the discussion here. Dr. Wright has answered a lot of the questions that I wanted to ask, and I think the thing that has troubled me here is that we have engaged in this pseudo-intellectual debate about whether a child at 20 weeks feels pain. And yet Dr. Wright has testified that a preemie at 20 weeks, when their heel is stuck or some noxious stimuli that even a 10-year-old could suggest would cause the child to feel pain, that the child pulls away. I have seen children in neonatal units cry when their blood is taken.

And I guess I am really concerned about where our humanity is going here, Mr. Chairman, because there is so many anecdotal things that I could point to that really just concern me, but, you

know, if a lot of us saw a little baby bird with a broken wing flopping around, we wouldn't engage in this intellectual debate of whether it is hurting or not. There would be something in our humanity that would call upon us to respond. And to me that is the greatest challenge we face here.

I know that for a lot of people on this side of the pro-abortion perspective that this whole discussion of pain for the unborn child is a delicate, uncomfortable one because it flies in the face of the position that they hold. And I understand the discomfort with that. But if all we really cared about was just being comfortable about the situation, we wouldn't be having this debate at all.

I am reminded of a situation that occurred when Dr. Abu Hyatt, Manhattan abortionist, performed a late-term abortion, and in the midst of it he had to suspend it and sent the mother home when she was still in a quasi-stupor, and the baby was born. But the baby was born without the child's arm. And at some point, the child must have asked that mother—the child lived and grew up, and the mother had to face a question from the child at some point, where is my arm?

And I think sometimes we overlook the fact that when we help mothers understand the reality here, we save them great pain in the long run many times, because I think that there are a lot of things that time tempers, that we know that we maybe had done something that we didn't want to. But to see a mother learn that her child felt pain in this circumstance has got to be an inconsolable situation, and my greatest fear—we have had people say, well, Congress shouldn't be involved here, they shouldn't be playing doctor, shouldn't be playing medicine. There was a time when medicine wouldn't have been involved in this discussion and a time when Congress wouldn't have to be involved in this kind of situation.

Sometimes the obvious things we can see with our own eyes. Sometimes the clarity that a 10-year-old possesses escapes those of us that are erudite in the great policymakers of this country.

There is nothing that frightens me more for our humanity than somehow many could go to the end of it and looking back and realizing that our contribution to it was being willing to stand by and watch it desecrated before our very eyes.

So, Mr. Chairman, I really have a hard time adding much more to that, other than to suggest that we need to back up here a little bit before the last vestige of our humanity is distinguished and just look at where we really are, because if there is anything that is true about this life, it is that we are all mortal. And at some point, we have to ask ourselves what we have done for those around us.

I thank the panel, and I thank the Chairman for indulging me and just kind of, just a concern that I have about where this debate really is.

Thank you, Mr. Chairman.

Mr. CHABOT. Thank you very much.

The gentleman from Virginia is recognized for 5 minutes.

Mr. SCOTT. Thank you.

We have heard from two witnesses; Dr. Anand and Dr. Caplan have raised questions whether a script is the most effective way to

communicate, or whether a—just a description taken into consideration, everything, all of the factors involved.

Professor Collett, from your clinical, medical background, can you explain, can you tell us whether you think the script developed by Congress is more effective than an explanation from a medical background, getting guidance from the medical organizations?

Ms. COLLETT. I would challenge the characterization of Dr. Caplan of the bill. To begin with, if you look at section II(a)2, it's quite clear that after——

Mr. NADLER. Where are you?

Ms. COLLETT. I am sorry, I have an e-mail printed out, Congressman Nadler.

Mr. SCOTT. Page 11, line 24.

Ms. COLLETT. Thank you, Congressman Scott. It's quite clear that after a presentation of the statement, it is required that the physician, if that is the person who is providing this statement, it can also be an agent of the physician, which, in fact, it appears from the practice of most clinics as recorded by Guttmacher Institute and in the various surveys they do, after making this statement required under clause 1, the abortion provider may provide the woman involved with his or her best medical judgment on the risks of administering such anesthesia or analgesic if any and the costs associated therewith. Because we have at least four States in the Union that do not require abortions to be done by physicians. I think the script in fact is a very important fitting. For example——

Mr. SCOTT. Just from your clinical background, you think the script is an effective way to communicate with the patient?

Ms. COLLETT. I believe in this particular subspecialty, Mr. Scott, because we have non-physicians engaging in the practice of abortion, a script is an important protection.

Mr. SCOTT. Dr. Wright, do you think a script is an effective way to communicate with patients?

Dr. WRIGHT. Well, I think it is certainly a tool, especially when we are in an area where information has not been given. We the people look to the Government to protect us and to stand up on our behalf. If women have not been given this information or have not been given it in a way that they can understand, a script at least makes sure that the same information is given to every patient.

Mr. SCOTT. Well, let me ask another question. Based on medical consensus, should anesthesia be administered or not, and at what gestational age?

Dr. WRIGHT. Based on——

Mr. SCOTT. Based on medical consensus. I mean, we are up here as politicians. We are not just receiving evidence. Is there medical consensus as to whether anesthesia should be administered or not?

Dr. WRIGHT. All right. Let's start with the baby at 23 weeks, it pops out today and is on the outside. From then on in development, there is consensus. We provide anesthesia, period. No debate, no if, ands or buts.

Mr. SCOTT. Okay.

Dr. WRIGHT. For the baby younger than that, if it is on the inside, if it is fetal surgery, there are two anesthetics planned, one for the mom and one for the baby, because if you don't protect that

baby from that stress and that pain, that baby will not survive, not only that procedure, but thrive inside.

Mr. SCOTT. Well, is there a clear consensus?

Dr. WRIGHT. Sure.

Mr. SCOTT. Does everybody agree with that? There's a clear consensus that, at 23 weeks, fetal anesthesia ought to be administered?

No, there is not. Dr. Caplan.

Mr. CAPLAN. After reading the literature, no.

Mr. SCOTT. There is not a consensus, no.

Is there a consensus, Dr. Anand?

Dr. ANAND. There is a consensus. All the fetal surgical procedures that are done today at 20 weeks or later require anesthetic.

Mr. SCOTT. We are talking about abortions.

Dr. ANAND. Forgive me. I thought Dr. Wright had mentioned, given two examples, one for fetal surgery and the one for preterm neonatal surgery.

Dr. WRIGHT. Mr. Scott, there's not a consensus about giving anesthesia for abortion. That is why we are here, because no one wants to recognize that a baby undergoing an abortion feels pain.

Mr. SCOTT. So your testimony is that there is no consensus in the medical community as to what to do? I think Dr. Caplan has pointed out that, depending on the condition of the patient and various other risk factors, it may be a good thing to do; it may not.

Dr. WRIGHT. I would say to you, the medical community swims in two different ponds on this issue. There are those of us who practice fetal anesthesia, neonatal anesthesia. And there are abortionists. There is very little, if any, overlap. So to expect consensus out of those two camps is an irrational statement.

Mr. CHABOT. The gentleman's time has expired.

I would just note, there is not much consensus relative to whether or not we ought to allow abortion in the country or not either, so——

Mr. SCOTT. I think, Mr. Chairman, with all due respect, here we have a bill that will prescribe a message to a patient. Presumably the message is going to suggest some action, and there's no consensus as to what the patient ought to do with the information? Should they have fetal anesthesia or not?

Mr. CHABOT. I think the argument is that they should be provided the information. They can then do with that information what they deem appropriate.

Mr. SCOTT. Well, it's——

Dr. WRIGHT. May I add one more comment. Congress did make some decisions about informed consent. The lawyer can answer it better than me, but it's around health care privacy and protection. Congress came up with that language. We the doctors didn't.

You prescribed it for us, and we give it to every patient the same way. So this is not the only time that informed consent has ever been prescribed by Congress.

Ms. COLLETT. What we were talking about prior to the hearing is the Patient Self-Determination Act, which is key to the Federal Medicare and Medicaid funds, which is not individual physicians.

Mr. NADLER. But that, if I may, that refers to legal rights not to medical status;correct? In other words——

Ms. COLLETT. I understand.

Mr. NADLER. —the script that Congress provides, correct me if I am wrong there, says, this is your legal right; this is what the law says.Is that correct?

Ms. COLLETT. Actually, at the time it was passed, Congressman, there were several States that didn't have the documents that Congress wanted them to have.

Mr. NADLER. But as far as the legal system, not with the medical status; is that correct?

Mr. SCOTT. Well, if the gentleman would yield—or medical procedure.

Ms. COLLETT. It is about withdrawing or continuing life-sustaining care. So that distinction, I would argue, Congressman Scott, having been a lawyer that was in practice at the time it came down and advising a hospital, having to draft some documents for those hospitals, I think it affected the medical practice of my clients at that point in time. There were, in fact, scripts that we had to comply with. But I think more the concern was how we responded to it.

Mr. SCOTT. Mr. Chairman, could I ask unanimous consent for an additional minute?

Mr. CHABOT. Without objection.

Mr. NADLER. Would the gentleman yield for Dr. Caplan to answer the question. He is obviously chomping at the bit.

Mr. SCOTT. Yes. Let me ask a question, then he can give the answer as part of the answer. The script includes statements like, the Congress of the United States has determined that, at this stage of development, an unborn child has physical structures necessary and whatnot. Is there any value to what Congress thinks about the issue? Wouldn't the patient be more interested in what the American Medical Association thinks about the issue?

Mr. CAPLAN. Well, I would answer that and say the following: I was getting agitated because I actually was in front of Senator Danforth for the Patient Self-Determination Act when it was legislated, as a witness, thereby dating myself as being more ancient than anybody ever should be. But at the time, there were recommendations about what people needed to know to control their care in terms of the legal rights.

But that is not the same as giving a script about what must be told to a person in terms of informed consent in their clinical care. So to tie back to your question, what I do believe—and I do respect Mr. Franks and Mr. Chabot's points about what people need to know in talking about respect for life—is if you want to educate physicians or nonphysicians to really do an educational job, to do what informed consent requires, telling them to read a script is not the vehicle. They won't understand it, some of them, the people reading it, so to speak. They are not up on all the literature. They won't even have all the evidence we have had in the room today. You have got to have this done as education. You have got to have it done as part of training. You have to put it in the residency programs. You want the professional societies to adopt it, and you want the Federal Government to encourage the proliferation of this information as it does in many areas, whether it is—I won't go into them—but it often encourages whether it is protection against get-

ting the flu or whatever that these messages go out into the health professions so that people can talk to their providers.

Last point, not every case is the same. The script is not reflective of that fact. You couldn't write it that way. When you have a baby born without a brain and it is an anencephalic baby, whether you are going to say it can feel pain or not and someone is getting an abortion for that reason is not the same as someone coming in for a different reason. What I worry about with the script is not that you can't answer questions afterwards; is that the script as it is written now and Congress is going to produce it is not going to be effective and not the way that we want information to come out between doctor and patient or health care provider and patient.

Mr. CHABOT. The gentleman's time has expired.

Did any of the other witnesses want to address or answer the question? If not, okay.

I want to thank the panel for their testimony this afternoon. This is obviously a controversial issue. Anything that touches on abortion always is. But you have helped shed light on this, and it's, I think, been very helpful.

If there's no further business to come before the Committee, we are adjourned. Thank you.

APPENDIX

Material Submitted for the Hearing Record

APPENDIX TO THE PREPARED STATEMENT OF TERESA S. COLLETT, PROFESSOR OF LAW, UNIVERSITY OF ST. THOMAS SCHOOL OF LAW: *FETAL PAIN LEGISLATION: IS IT VIABLE?* PEPPERDINE LAW REVIEW. VOL. 30:161, 2003

Fetal Pain Legislation: Is it Viable?

Teresa Stanton Collett*

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Whether a human fetus experiences pain during an abortion has been the subject of heated debate within medical, legal, and political circles for over two decades. In the 1980's President Reagan's statement that "when the lives of the unborn are snuffed out [by abortion], they often feel pain, pain that is long and agonizing,"[1] and the release of a controversial film entitled "The Silent Scream"[2] were merely two of the events that kept this issue in public view. Federal and state legislative efforts to enact "partial birth

* Professor of Law, South Texas College of Law, Houston, Texas. I am grateful for the thoughtful critiques of this article by Dr. Watson A. Bowes, Jr., Dr. Byron Calhoun, Jan Mort, and Elisa Ugarte, Esq.

1. President Ronald Reagan, Remarks at The National Religious Broadcasters Convention (Jan. 30, 1984) (transcript *available at* http://wwwreagan.utexas.edu/resource/speeches/1984/13084b.htm).

2. THE SILENT SCREAM (American Portrait Films 1984) (script and visual images *available at* http://www.silentscream.org).

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abortion bans" during the last half of the 1990's reignited public debate over fetal pain.[3] Two and a half years ago, the argument intensified when the world caught a glimpse of life within the womb through the picture of Samuel Armas' tiny hand apparently grasping the finger of the perinatal surgeon who was repairing the spine of the twenty-one week old fetus.[4] As the twenty-first century begins, there are some indications that advances in medical knowledge are resolving the debate in medical circles surrounding fetal pain, and the resolution favors its acknowledgment at some point prior to birth.[5]

The purpose of this article is to explore the nature and extent of the medical community's emerging consensus on the issue of fetal pain, and consider whether this consensus should be reflected in American law. Part I discusses the current state of medical knowledge regarding fetal experiences of pain. Part II describes recent changes in medical standards to acknowledge the possibility of fetal pain. The federal constitutionality of laws directed at minimizing or protecting the human fetus from pain is discussed in Part III. Common objections to fetal pain legislation are identified and answered in Part IV. This article concludes with a call for legal requirements that women seeking abortions be informed of the possibility that the fetus may experience pain after twelve weeks gestation, and offered fetal anesthetic or modified abortion procedures to minimize any possibility of fetal pain.

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3. James Bopp, Jr. & Curtis R. Cook, *Partial Birth Abortion: The Final Frontier of Abortion Jurisprudence*, 14 ISSUES L & MED. 3 (1998).

4. Samuel Armas photo (2002), *available at* http://www.fetal-surgery.com/fs-pics.htm. In utero fetal surgery made the news recently with reports of successful heart surgery on a 23-week-old fetus. Denise Grady, *Operation on Fetus's Heart Valve Called a "Science Fiction" Success*, N.Y. TIMES, Feb. 25, 2002, at A1, *available at* http://www.nytimes.com/2002/02/25/health/25FETA.html.

5. *See* Fran Lang Porter, et al., *Pain and Pain Management in Newborn Infants: A Survey of Physicians and Nurses*, 100 PEDIATRICS 626 (1997) (stating that "ample data now indicate that the neurophysiologic basis for pain is established by the end of the second trimester of pregnancy"); ROYAL COLLEGE OF OBSTETRICIANS AND GYNAECOLOGISTS, FETAL AWARENESS: REPORT OF A WORKING PARTY (1997) (providing that practitioners who undertake termination of pregnancy at 24 weeks or later should consider the requirements for fetal analgesia or sedation prior to fetocide); American Academy of Pediatrics & Canadian Paediatric Society, Committee on Fetus and Newborn, *Prevention and Management of Pain and Stress in the Neonate*, 105 PEDIATRICS 454 (2000) (stating that "[b]y late gestation, the fetus has developed the anatomic, neurophysiological, and hormonal components necessary to perceive pain."); COMMISSION OF INQUIRY INTO FETAL SENTIENCE, THE RAWLINSON REPORT (1996) ("the fetus may be able to experience suffering from around 11 weeks of development"), *available at* www.care.org.uk; ROYAL COLLEGE OF PHYSICIANS AND SURGEONS OF ALBERTA, POLICY ON TERMINATION OF PREGNANCY (2000) (stating that "[i]n some circumstances, in order to reduce suffering where intervention is necessary to terminate pregnancy after 20 weeks/0 days, patient and physician may consider feticide prior to initiating the termination procedure"). *See also* B.A. Robinson, *Can a Fetus Feel Pain?*, (2001), *available at* http://www.religioustolerance.org/abo_pain.htm.

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I. THE SCIENCE OF FETAL PAIN

Physicians, like lawyers, must carefully define their terms prior to seeking an answer to any particular question. Before attempting to answer the question of whether a human fetus "feels pain," it is necessary to establish what the words "feels" and "pain" mean in this context.[6] Much of the divergence in medical opinion on the existence of fetal pain can be explained by noting the absence of a common definition of these key terms. The three competing definitions revolve around whether "feels" means to have a "conscious appreciation of" or merely "experience," and how such appreciation or experience can be ascertained.

A. Conscious Appreciation

Some physicians restrictively define "feels" to mean only those responses that reflect some self-awareness or "conscious appreciation of pain."[7] In the absence of consciousness, they argue that the most researchers can conclude is that the human fetus "reacts to physical stimulation."[8] "Whether the fetus feels pain, however, hinges not on its biological development but on its conscious development. Unless it can be shown that the fetus has a conscious appreciation of pain after 26 weeks, then the response to noxious stimulation must still essentially be reflex, exactly as before 26 weeks."[9]

While representing a minority view among physicians, as evidenced by the use of pain medication for certain *in utero* procedures performed on the

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6. Adrian R. Lloyd-Thomas & Maria Fitzgerald, *Reflex Responses Do Not Necessarily Signify Pain*, 313 BRIT. MED. J. 797 (1996), *available at* http://www.bmj.com/cgi/content/full/313/7060/797.

7. Testimony of Dr. Stuart Derbyshire, Commission of Inquiry into Fetal Sentience (Mar. 6, 1996), *available at* http://www.care.org.uk/issues/fs/derbyshr.htm. *See also* Zbigniew Szawarski, *Commentary: Probably No Pain in the Absence of "Self,"* 313 BRIT. MED. J. 796 (1996), *available at* http://www.bmj.com/cgi/content/full/313/7060/796.

8. Hugh Muir, *When does pain begin?*, THE DAILY TELEGRAPH, Sept. 28, 1996, at 8.

> Groups such as the Birth Control Trust, whose director Ann Furedi co-wrote one of the papers, admit that the foetus reacts to physical stimulation, such as procedures involving needles, from around 12 to 14 weeks. They agree that stress levels can rise in these circumstances. But they argue that the mere reaction to physical stimuli does not automatically indicate the feeling of pain.

Id.

9. Stuart Derbyshire & Ann Furedi, *"Fetal Pain" is a Misnomer*, 313 BRIT. MED. J. 795 (1996), *available at* http:wwwbmj.com/cgi/content/full/313/7060/795/a. *See also* Stuart Derbyshire, *There Is No Such Thing as 'Fetal Pain,'* LIVING MARXISM, Sept. 1996, at 8; Lloyd-Thomas & Fitzgerald, *supra* note 7, at 797.

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fetus,[10] this reasoning was embraced by the federal district court in *Women's Medical Professional Corp. v. Voinovich.*[11] In the absence of medical testimony that the fetus "experiences a conscious awareness of pain," the court concluded that the state could not justify a ban on D&X, or "partial birth" abortion, as preventing unnecessary cruelty to the fetus.[12] In essence, the court reasoned that absent "mindful awareness" of noxious stimuli by the fetus,[13] there can be no pain, and in the absence of pain, there can be no cruelty.[14]

B. Behavioral and Physiological Responses

This requirement of consciousness, as a predicate to the experience of pain, has been rejected by other physicians. These doctors argue that observed physiological[15] and behavioral responses[16] to stimuli are reliable

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10. *See generally* Charles B. Caldwell et al., *Anesthesia and Monitoring for Fetal Intervention, in* THE UNBORN PATIENT 149 (Michael R. Harrison et al., 3d ed. 2001); Alan C. Santos & Mieczyslaw Finster, *Perinatal Pharmacology, in* SHNIDER AND LEVINSON'S ANESTHESIA FOR OBSTETRICS 61 (Samuel C. Hughes et al. eds., 2002); Mark A. Rosen, *Anesthesia for Fetal Procedures and Surgery, in* ANESTHESIA FOR OBSTETRICS 285 (Sol M. Shooder et al. 3d ed. 1993).

11. 911 F. Supp. 1051 (S.D. Ohio 1995).

12. *Id.* at 1074. In *Stenberg v. Carhart*, Justice Kennedy provided a layperson's description of the D&X procedure:

> In the D&X, the abortionist initiates the woman's natural delivery process by causing the cervix of the woman to be dilated, sometimes over a sequence of days. The fetus' arms and legs are delivered outside the uterus while the fetus is alive; witnesses to the procedure report seeing the body of the fetus moving outside the woman's body. At this point, the abortion procedure has the appearance of a live birth. . . . With only the head of the fetus remaining in utero, the abortionist tears open the skull. According to Dr. Martin Haskell, a leading proponent of the procedure, the appropriate instrument to be used at this stage of the abortion is a pair of scissors. Witnesses report observing the portion of the fetus outside the woman react to the skull penetration. The abortionist then inserts a suction tube and vacuums out the developing brain and other matter found within the skull. The process of making the size of the fetus' head smaller is given the clinically neutral term "reduction procedure." Brain death does not occur until after the skull invasion, and, according to Dr. Carhart, the heart of the fetus may continue to beat for minutes after the contents of the skull are vacuumed out. The abortionist next completes the delivery of a dead fetus, intact except for the damage to the head and the missing contents of the skull.

530 U.S. 914, 958-59 (2000) (Kennedy, J., dissenting) (internal citations omitted).

13. 911 F. Supp. at 1073.

14. *Id.* at 1074. *See also* Interview by Bob Abernethy with Peter Singer, Professor, Princeton University, *in* PBA RELIGION & ETHICS NEWSWEEKLY (1999), (stating that "[k]illing a newborn baby—whether able-bodied or not—I think, is never equivalent to killing a being who wants to go on living. It's different. It's still—almost always wrong, but it's different"), *available at* http://www.pbs.org/wnet/religionandethics/transcripts/singer.html.

15. Physiological changes include changes in heart rate or the increased production of stress hormones. Parliamentary Office of Science & Tech., *Advice to the Department of Health, in* FETAL AWARENESS 3, (Feb. 1997), *available at* http://www.parliament.uk/post/pn094.pdf.

16. *Id.* Behavioral changes include withdrawal of affected body parts, crying, and facial expressions. *Id.*

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indicators of pain, particularly for those individuals who are incapable of the self-reporting that is seemingly required for identification of self-awareness or consciousness.[17] While conceding the lack of perfect correspondence between behavioral and physiological indicia and the actual experience of pain, these physicians note that self-reports of pain and the actual experience of pain also lack a perfect correspondence.[18] In the absence of the ability to self-report, physical evidence of pain-like responses should be viewed as "infantile forms of self-report and should not be discounted as 'surrogate measures' of pain."[19] In the face of physiological and behavioral responses to noxious stimuli, these physicians assert that the burden of proof shifts to those who challenge the existence of fetal pain rather than having to be borne by those who seek to alleviate it.[20]

C. Neurological Development

Physicians subscribing to the view that fetal pain should be presumed in cases involving physiological and behavioral responses often reinforce their

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17. *See* K.J.S. Anand & Kenneth D. Craig, *Editorial: New Perspectives on the Definition of Pain*, 67 PAIN 3 (1996) (stating that "because self-report may be absent or a faulty source of inference, nonverbal behavioral information is often needed and used for pain assessment."). *See also* American Academy of Pediatrics & Canadian Paediatric Society, *Prevention and Management of Pain and Stress in the Neonate*, 105 PEDIATRICS 454 (2000), *available at* http://www.aap.orgpolicy/re9945.html.

18. Anand & Craig, *supra* note 17, at 3.

19. *Id.* at 5. *See also* Vivette Glover & Nicholas Fisk, *Do Fetuses Feel Pain?*, 313 BRIT. MED. J. 796 (1996) (arguing that fetal stress responses may be the best indices of pain currently available).

20. John Wyatt, *When Do We Begin to Feel the Pain?*, THE GUARDIAN, Oct. 24, 1996, at 2.

> While responsible scientists have a duty to emphasise what they don't know, doctors have a duty of care that should lead them to err on the side of caution. If there is a possibility of lasting harm, we must act in the best interests of our patients even when the evidence is ambiguous. We should, in the words of Glover [a clinical scientist in the psychobiology group at Queen Charlotte's and Chelsea Hospital in London], ' give the foetus the benefit of the doubt', and extend the use of effective pain relief to surgical procedures before birth.

Id. See also S. Vanhatalo & O. Van Nieuwenhuizen, *Fetal Pain*, BRAIN AND DEVELOPMENT, May 24, 2000 (stating that the proper response to evidence of fetal response to noxious stimuli is to avoid or treat any possibly noxious stimuli rather than speculate on the possible emotional experiences of pain by the fetus or neonate). *See also*, Mark Owens, *Pain in Infancy: Conceptual and Methodological Issues*, 20 PAIN 213, 230 (Nov. 1984).

> If the assumption that infants experience pain is correct, then the benefits are measured by a decrease in needless human suffering. The cost of a mistaken assumption of infant pain would be to waste the effort. Costs and benefits come down squarely on the side of assuming that infants do experience pain. The burden of proof should be shifted to those who maintain that infants do not feel pain.

Id.

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argument by referring to the development of the fetal nervous system. The spinal cord and brain develop within the neural tube of the human embryo. This tube forms within the first two to three weeks of gestation.[21] Within four weeks after conception, the primitive structures of the brain are recognizable.[22] The internal structure of the brain will continue to develop throughout the pregnancy and during the first year of infancy, eventually resulting in a complex structure that regulates many distinct physical processes.[23]

In addition to the brain and spinal cord, the human nervous system involves an intricate network of peripheral receptors and transmitters.[24] The receptors specifically involved in discerning pain are called nociceptors.[25] Nociceptors are naked nerve endings that lie free in the skin and have their cell bodies in the dorsal root ganglia.[26] They respond to pressure, thermal and chemical stimuli, and transmit their sensory signals to the spinal cord, and ultimately to the brain, via cutaneous nerve fibres.[27] The network of nociceptors and fibres develop in the period from seven to twenty weeks gestation, beginning with the skin of the face, continuing to the soles of the hands and feet, and ultimately covering the entire body.[28] The fibres are connected to the central nervous system via a network of synapse-like connections to the cells of the fetal dorsal horn in the spinal cord.[29] Impulses received by the dorsal horn are transmitted to the various parts of the brain via neural and chemical connections.[30]

When received by the brain, the impulses enter the thalamus.[31] The thalamus registers the impulse and, if the impulse is identified as one of organic pain, physiologically signals the motor nerves to initiate the body's complex reflexive response to pain.[32] After interconnection, the thalamus

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21. Parliamentary Office of Science & Tech., *supra* note 15, at 2.

22. *Id.*

23. *Id.*

24. *Id.*

25. *Id.*

26. J.A. Rushford, *Pain Perception, in* FETAL & NEONATAL NEUROLOGY AND NEUROSURGERY 601 (Malcolm I. Levine & Richard J. Lilford, Sr. eds., 1995).

27. *Id.*

28. Phil Anand & D.B. Carr, *The Neuroanatomy, Neuophysiology, and Neurochemistry of Pain, Stress and Analgesia in Newborns and Children*, 36 ACUTE PAIN IN CHILDREN 795, 798 (Aug. 1989).

29. Rushford, *supra* note 26, at 602.

30. K.J.S. Anand & P.J. McGrath, *The Applied Physiology of Pain, in* PAIN IN NEONATES 40 (1993).

31. *Id.*

32. RICHARD S. SNELL, CLINICAL NEUROANATOMY: A REVIEW WITH QUESTIONS AND EXPLANATIONS 138 (3d ed. 2001) (stating that "[a] vast amount of sensory information (except smell) converges on the thalamus and is integrated through the interconnections between the nuclei. The resulting information pattern is distributed to other parts of the central nervous system.").

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may also forward the initial impulse to the cortex of the brain for more complex processing including psychological reaction and directed physical responses.[33] Both the thalamus and cortex are recognizable in the basic brain structure from about six weeks gestation. They continue to grow in size and internal structure throughout the pregnancy.[34] The thalamus, however, develops and interconnects with the nervous system much earlier than the cortex. By twelve weeks of gestation the thalamus is sufficiently mature to respond to impulses received from the sensory network.[35] Only at twenty weeks or beyond is the interconnection between the thalamus and the cortex sufficiently developed for the cortex to receive the impulses transmitted from the network via the thalamus.[36]

From the perspective of neurological development, the key to answering the question of whether fetuses experience pain depends primarily upon the development and function of the various regions of the brain. While simple reflex responses can be observed as early as seven weeks of gestation, there is no involvement of the brain. In the absence of any brain activity there can be no perception of pain, according to the current consensus of the medical community.[37] Where medical opinion divides is over whether pain perception by the human fetus is controlled exclusively by the cortex or whether the thalamus and lower brain stem can generate perceptions of pain.

Some physicians argue that the earlier development of the thalamus and lower brain stem is sufficient for pain perception. Citing evidence obtained through observation of anencephalic and hydranencephalic infants who have no or minimal cortex development, these experts argue that pain perception is not dependant upon established connections from the thalamus to the cortex, but can exist after the thalamus establishes its connection with the sensory network.[38] This connection can be established as early as twelve

33. *Id.*

34. Parliamentary Office of Science & Tech., *supra* note 15, at 2.

35. *Id.*

36. MEDICAL RESEARCH COUNCIL, REPORT OF THE MRC EXPERT GROUP ON FETAL PAIN, §3.3 (2001), *available at* http://www.mrc.ac.uk/index/publications/publicatoins-research_reviews.htm. "Connections from the thalamus to the cortex begin to form at about 20 weeks gestation. . .and continue to mature along with other cortical connections well into childhood and adolescence." *Id.*

37. CARE COMMISSION ON INQUIRY INTO FETAL SENTIENCE, HUMAN SENTIENCE BEFORE BIRTH § 5.2.1 (1996), *available at* http://www.care.org.uk/resource/pub/fs/fs05.htm#5_2_1.

38. CARE COMMISSION ON INQUIRY INTO FETAL SENTIENCE, *supra* note 37, § 5.3.1. *See also* Stephen G. Waxman, *in* CORRELATIVE NEUROANATOMY 125 (24th ed. 2000). "The thalamus (rather than the sensory cortex) is thought to be the crucial structure for the perception of some types of sensation, *especially pain*, and the sensory cortex may function to give finer detail to the sensation." *Id.* This conclusion, although distinguishable, is consistent with the statement of the American Academy of Pediatrics that "[t]he decision [to administer anesthesia to neonates

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weeks of gestation. Thus some experts would date possible pain perception at twelve to thirteen weeks.[39]

Other physicians assert that the cortex-thalamus connection is essential to the experience of pain. Since the earliest this connection is established is between twenty and twenty-four weeks of gestation, these experts assert that only those fetuses of twenty or more weeks of gestation are capable of experiencing pain.[40] This position seems to dominate the thinking of organized medicine as evidenced by the recent policy positions on administering anesthetic or performing feticide prior to abortions performed during or after twenty weeks of gestation.[41]

II. RECENT CHANGES IN MEDICAL STANDARDS TO ACKNOWLEDGE THE POSSIBILITY OF FETAL PAIN

While advocates involved in the abortion debate had long argued over whether a human fetus feels pain,[42] on July 9, 1994 *Lancet*, a highly respected British medical journal, published an article that seemingly changed the parameters of the debate. In *Fetal Plasma Cortisol and β-endorphin Response to Intrauterine Needling*,[43] researchers reported the results of a study investigating fetal hormonal response to intrauterine needling. Summarizing the implications of their results, the authors stated that, "data suggest[s] that the fetus mounts hormonal stress response to invasive procedures. . . . [and] raise the possibility that the human fetus feels

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undergoing surgical procedures] should not be based solely on the infant's age or perceived degree of cortical maturity."

American Academy of Pediatrics, *Policy Statement: Neonatal Anesthesia*, 80 PEDIATRICS 446 (1987), *available at* http://www.aap.org/policy/01730.html.

39. CARE COMMISSION ON INQUIRY INTO FETAL SENTIENCE, *supra* note 37, § 8.1. *See also* Mary Sheridan & Roger Highfield, *Growing Pains*, LONDON TELEGRAPH (Oct. 12, 2001) (reporting that 80% of British neuroscientists responding to survey believed that the fetus should receive pain control after eleven weeks of gestation).

40. *E.g.* MEDICAL RESEARCH COUNCIL, *supra* note 36, § 3.3.

41. The British Royal College of Obstetricians and Gynaecologists recommend that, prior to the termination of a pregnancy during or after 24 weeks of gestation, practitioners consider the need for fetal analgesia and sedation. Andrea O'Donnell, *And Before Birth?*, 349 LANCET 546 (1997) (citing BRITISH ROYAL COLLEGE OF OBSTETRICIANS AND GYNAECOLOGISTS, FETAL AWARENESS: REPORT OF A WORKING PARTY (1997)). "In order to reduce suffering" the College of Physicians and Surgeons of Alberta (Canada) recommend "feticide prior to initiating the termination procedure" during or after twenty weeks of gestation through intracardiac injection of KCl into the fetus in utero. *Id.*

42. *See* John T. Noonan, Jr., *The Experience of Pain by the Unborn*, *in* NEW PERSPECTIVES ON HUMAN ABORTION 205 (Thomas W. Hilgers et al. eds., 1981); *see also* Cristine Russell, *Physician Group Supports President on Fetus Pain*; WASHINGTON POST, Feb. 14, 1984, at A6.

43. Xenophon Giannakoulopoulos et al., *Fetal Plasma Cortisol and β-endorphin Response to Intrauterine Needling*, 344 LANCET 77 (1994).

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pain in utero, and may benefit from anesthesia or analgesia for invasive procedures."[44]

This sparked a lively debate within the British medical community, and resulted in numerous investigations into the question of whether human fetuses feel pain. In May of 1995, the Department of Heath for the United Kingdom commissioned "an update on current scientific knowledge" by Professor Maria Fitzgerald.[45] Based on a review of all scientific literature then available, she concluded that a human fetus could only perceive pain after the neural connections are established to the cortex during or after the twenty-sixth week of gestation.[46]

In January 1996, a private British organization, the Christian Action, Research, and Education Trust ("CARE Trust") created the Commission of Inquiry into Fetal Sentience.[47] After almost a year of collecting and evaluating evidence,[48] the Commission found:

> Almost everyone now agrees that unborn babies have the ability to feel pain by 24 weeks after conception and there is a considerable and growing body of evidence that the fetus may be able to experience suffering from around 11 weeks of development. Some commentators point out that the earliest movement in the baby has been observed at 5.5 weeks after conception, and that it may be able to suffer from this stage.[49]

Based upon this finding the Commission recommended that from the early stages of gestation the fetus should be protected from potentially painful procedures by the use of adequate anesthesia.[50] In July 1996, the All-Party Parliamentary Pro-Life Group also produced a paper on fetal pain, which concluded that "the anatomical structures in the fetal nervous system necessary for the appreciation of pain are 'present and functional before the tenth week of intrauterine life.'"[51]

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44. Giannakoulopoulos et al., *supra* note 43, at 77.

45. Parliamentary Office of Science & Tech., *supra* note 15, at 2.

46. *Id.*

47. *Id.* The Commission is also referred to by some commentators as the "Rawlinson Commission" in reference to the fact that it was chaired by the Right Honorable Lord Rawlinson of Ewall, PC QC. *See also* Derbyshire, *supra* note 9.

48. Wyatt, *supra* note 20, at 2.

49. COMMISSION OF INQUIRY INTO FETAL SENTIENCE, HUMAN SENTIENCE BEFORE BIRTH § 2, *available at* http://www.care.org.uk/resource/pub/fs.fs02.htm.

50. *Id.* § 8.

51. Parliamentary Office of Science & Tech., *supra* note 15, at 2. *See also* Muir, *supra* note 8, at

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Responding to these and other reports that the human fetus exhibited pain-like responses in utero, the Royal College of Obstetricians and Gynaecologists of Great Britain established a working party to determine whether a fetus might be aware of pain, and if so, what the implications of that determination might be on diagnostic and therapeutic procedures carried out on the fetus, as well as termination of pregnancy when the fetus is not expected to live.[52] In October 1997, the Royal College issued its Working Party Report on Fetal Awareness. Based upon the physiological and behavioral evidence, the Working Party recommended that practitioners who undertake procedures directly on the fetus, or who undertake termination of a pregnancy at 24 weeks or later, should consider the requirements of fetal analgesia or sedation prior to the procedure.[53]

In 1999, the British Department of Health requested that the Medical Research Council review the report of the Royal College and make recommendations as to areas where further scientific research was needed.[54] As a result of their study, members of the Council's expert panel found that the sensory pathways and connections to the cortex necessary for pain perception are present or begin to form at twenty weeks gestation.[55] This has prompted calls for the Royal College to change its recommendation concerning the use of fetal analgesia in fetal surgery or abortions back from twenty-four weeks to twenty weeks.[56]

This would be consistent with the policy of the College of Physicians and Surgeons of Alberta, Canada. In the summer of 2000, the Alberta College modified its policy on termination of pregnancy to "reduce suffering where intervention is necessary to terminate pregnancy after 20 weeks/0 days" by recommending that the fetus be killed via intracardiac injection of potassium chloride prior to initiating the termination procedure.[57]

8.

> The society's [Society for the Protection of the Unborn Child] current line on foetal pain is based on research by Dr. Peter McCullagh, of the Australian National University in Canberra, and published in July by the All Party Parliamentary Pro-life Group. . . . Dr. McCullagh argues that it is also possible to make a judgment [about the existence of fetal pain] by establishing the presence of nerve and brain faculties that register pain in developed humans. He concludes that these faculties are likely to be developed by the tenth week of life.

Id.

52. ROYAL COLLEGE OF OBSTETRICIANS AND GYNAECOLOGISTS, DESCRIPTION OF WORKING PARTY REPORT ON FETAL AWARENESS (1997).

53. *Id. See also* David James, *Recent Advances: Fetal Medicine*, 316 BRIT. MED. J. 1580 (1998).

54. MEDICAL RESEARCH COUNCIL, SUMMARY OF REPORT ON FETAL PAIN (2001), *available at* http://www.mrc.ac.uk/index/publications-publications/publications-research_reviews/publications-fetal_pain_summary_report.htm.

55. *Id.* §3.3.

56. *See* Roger Highfield, *Unborn Child Can Feel Pain at 20 Weeks, Say Researchers*, THE DAILY TELEGRAPH, Aug. 28, 2001, at 2.

57. COLLEGE OF PHYSICIANS AND SURGEONS OF ALBERTA, TERMINATION OF PREGNANCY

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III. CONSTITUTIONALITY OF AMERICAN LAWS THAT SEEK TO PROTECT THE FETUS FROM PAIN

In the United States, questions regarding fetal pain are entangled in the debate over abortion. Typically those who identify themselves as "prolife" have maintained that the fetus feels pain, while those who embrace the label "prochoice" have argued that fetal pain is a myth.[58] As early as the 1970's certain states have enacted laws seeking to minimize fetal suffering.[59] The constitutionality of these statutes has been reviewed by the courts in two contexts, statutes requiring women be informed of the possibility of fetal pain, and statutes restricting or prohibiting particular methods of abortion in an attempt to minimize fetal pain. Under the current abortion jurisprudence of the United States Supreme Court, it appears that statutes informing women of the possibility of fetal pain would be constitutionally permissible,[60] while statutes restricting or prohibiting particular methods of abortion in order to minimize or avoid fetal pain would not.[61]

A. Statutes Restricting or Mandating Particular Methods of Abortion

In *Stenberg v. Carhart*, the Supreme Court examined a Nebraska law prohibiting the use of "an abortion procedure in which the person performing the abortion partially delivers vaginally a living unborn child before killing the unborn child and completing the delivery."[62] In holding the statute unconstitutional, the majority found that the law effectively outlawed both dismemberment and partial birth abortions.[63] Read broadly, the prohibition unduly burdened women's ability to obtain abortions in the second half of pregnancy, and therefore violated the Constitution.[64] Justice Breyer, writing for the majority, explained that the statute also failed

(2000).

58. *What About Abortion Victims?*, THE NEW AMERICAN, Oct. 8, 2001, *available at http://thenewamerican.com/tna/2001/10-08-2001/insider/vol7no21_abortion.htm*. *See also* Gregg Easterbrook, *What Neither Side Wants You to Know. Abortion and Brain Waves*, THE NEW REPUBLIC, Jan. 31, 2000, at 21.

59. *See* 720 Ill. St. Ch. 720 §51016, formerly Ill. Rev. Stat. 1991 ch. 38 ¶81-26.

60. *See* Planned Parenthood v. Casey, 505 U.S. 833, 882 (1992) (holding that a Pennsylvania statute requiring physician to provide truthful information to women is not an undue burden on the right to obtain an abortion). *Id.*

61. *See* Stenberg v. Carhart, 530 U.S. 914, 921 (2000) (holding that a Nebraska law prohibiting the D&X procedure is unconstitutional).

62. *Id.* at 922.

63. *Id.* at 938-39.

64. *Id.* at 945-46.

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constitutional review because it contained no exception for performing the procedure when necessary to sustain the health of the mother.[65] In their concurrence, Justices Stevens and Ginsburg argued that the statute was irrational, and that the state could not justify a ban on any particular abortion procedure as advancing its interest in potential human life, since no lives were saved.[66]

Similarly, mandating fetal anesthetic or feticide prior to mid or late-term abortions may be attacked as irrational. A statute mandating modification of abortion procedures or administration of fetal anesthetic to preclude the possibility of fetal pain saves no lives. The state's interest in the protection of women's physical health is not advanced,[67] and courts may view any claim that the information advances the emotional or psychological well being of women with some skepticism.[68]

Even assuming the courts recognize the state's interest in limiting fetal suffering as substantial,[69] in order to survive constitutional review any law mandating fetal anesthetic or modified procedures would have to contain an exception for the health of the mother, and the effect of such an exception is a subject of substantial debate.[70] The constitutionality of mandating fetal anesthetic would be enhanced by limiting the law to abortions occurring after viability, yet viability and inception of the capacity to feel pain are not simultaneous,[71] leaving some cases where fetal suffering would occur. These objections suggest that the better legislative approach is a statute informing women of the possibility of fetal pain and offering them the opportunity to direct the use of fetal anesthetic.

B. Informed Consent Type Statutes

Research revealed only one case involving constitutional review of a statute requiring that women be informed of fetal pain. In *Charles v. Carey*,[72] a federal court of appeals reversed a trial court's refusal to grant a

65. *Id.* at 930-31.

66. *Id.* at 946-47 (Stevens, J., concurring).

67. *See* Planned Parenthood v. Doyle, 162 F.3d 463, 471 (7th Cir. 1998).

68. *Compare* the summary of research and bibliographies related to post-abortion regret prepared by the Elliot Institute, *available at* http://www.afterabortion.org (last visited Nov. 1, 2002), *with* the information provided by the National Abortion Federation *at* http://www.prochoice.org/ (last visited Nov. 1, 2002).

69. *See* Women's Medical Prof'l Corp. v. Ohio, 162 F.Supp.2d 929, 936 n.7 (S.D. Ohio 2001) (assuming validity of state's interest in minimizing fetal pain).

70. *See* Kevin Walsh, Note, *The Science, Law and Politics of Fetal Pain Legislation*, 115 HARV. L. REV. 2010, 2023-31 (2002).

71. *Id.* Viability is now considered to be achieved generally in the twenty-forth week of gestation, while research dates the ability to experience fetal pain as arising earlier in the pregnancy. *Id.* at 2012-15.

72. Charles v. Carey, 627 F.2d 772 (7th Cir. 1980).

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preliminary injunction against the enforcement of Illinois statutes governing abortion.[73] One of the provisions at issue required physicians to inform patients of any reasonable medical certainty of organic pain[74] to the fetus that might result from the particular abortion method to be employed, and of available ways to control such pain.[75] The statute provided criminal penalties for physicians who recklessly, knowingly, or intentionally disregard its requirements.[76] Relying upon the Supreme Court's opinion in *Planned Parenthood v. Danforth*,[77] the Court of Appeals found that the Illinois informed consent statutes unconstitutionally intruded into the physician/patient relationship.[78] In addressing the provisions requiring that a woman be informed of the possibility of fetal pain, the court stated:

> The uncontroverted medical testimony in the record at this stage describes this information as "medically meaningless, confusing, medically unjustified, and contraindicated, causing cruel and harmful stress to . . . patients." The defendants have submitted no evidence to rebut the plaintiffs' characterization of this information as false and unwarranted. Even assuming, therefore, that the State may further at all stages of pregnancy its asserted interest in "humane disposition of the fetus," a question we do not decide, the record now before us indicates that this particular informational requirement furthers no such purpose.[79]

At the conclusion of subsequent proceedings, the federal district court, following the lead of the appellate court, struck down the portion of the Illinois statute that required physicians inform women of the possibility that a fetus would experience pain when certain abortion techniques were utilized.[80] Relying upon the Supreme Court's reasoning in *City of Akron v. Akron Ctr. For Reproductive Health, Inc.*,[81] the district court held that the

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73. *Id.* at 792.

74. "Organic pain is a physiological or neurological response to noxious (harmful or damaging) stimuli." WILLIAM F. COLLITON, JR. & JOHN CAVANAUGH-O'KEEFE, FETAL PAIN: AN AGONIZING REALITY 1 (American Life League, Inc. ed. 1996).

75. *Charles*, 627 F.2d at 782.

76. *Id.*

77. Planned Parenthood v. Danforth, 428 U.S. 52 (1976).

78. *Charles*, 627 F.2d at 784.

79. *Id.*

80. Charles v. Carey, 579 F. Supp. 464, 470 (N.D. Ill. 1983).

81. City of Akron v. Akron Ctr. For Reproductive Health, Inc., 462 U.S. 416 (1983). This case is often referred to as *Akron I*.

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Illinois requirement was a direct burden on the abortion decision and therefore unconstitutional.[82] The continuing viability of this decision, however, is suspect in light of advances in medical knowledge regarding fetal pain and the Supreme Court's repudiation of much of the reasoning and the holding of *Akron I* in *Planned Parenthood v. Casey*.[83]

In *Casey*, the Court addressed the constitutionality of informed consent legislation at length. However, no single standard of review for abortion legislation commanded the support of a majority of the justices. According to Justices Rehnquist, White, Scalia, and Thomas, the proper test is whether the state law at issue is rationally related to a legitimate state interest in regulating the exercise of the liberty interest of the woman in obtaining an abortion.[84] Justices O'Connor, Kennedy, and Souter opined that the proper test is whether the law imposes an undue burden on the woman's liberty interest in obtaining an abortion.[85] A law imposes an undue burden when it "has the purpose or effect of placing a substantial obstacle in the path of a woman seeking an abortion of a nonviable fetus."[86] Justice Stevens asserted that the proper standard was whether the law sought to influence a woman's choice (therefore unconstitutional), or merely enhances the deliberative quality of the woman's choice (constitutional).[87] Neutral regulations on the health aspects of her decision would also be constitutional in Justice Stevens' opinion.[88] Justice Blackmun would have evaluated "informed consent" laws under strict scrutiny, requiring the state to show that the limitation "is both necessary and narrowly tailored to serve a compelling governmental interest." [89] Because seven justices concurred in upholding the informed consent aspects of the Pennsylvania statutes, and because the "undue burden" standard was the most protective of the woman's asserted liberty interest, lower courts have utilized the "undue burden" analysis as the proper standard for reviewing abortion legislation.[90] This interpretation is consistent with the Supreme Court's instruction in prior cases regarding the treatment of plurality opinions.[91]

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82. *Charles*, 579 F. Supp. at 470-71.

83. Planned Parenthood v. Casey, 505 U.S. 833, 882 (1992).

84. *Id.* at 966. (plurality opinion) (Rehnquist, C.J., concurring in part).

85. *Id.* at 876.

86. *Id.* at 877.

87. *Id.* at 916 (Stevens, J., concurring in part, dissenting in part).

88. *Id.* at 917.

89. *Id.* at 934. (Blackmun, J., concurring in part, concurring in the judgment, and dissenting in part).

90. *See* Greenville Women's Clinic v. Bryant, 222 F.3d 157, 166-67 (4th Cir. 2000) (holding that regulations addressing medical and safety aspects of abortion do not constitute undue burdens); *see also* Women's Med. Ctr. v. Bell, 248 F.3d 411 (5th Cir. 2001) (holding that undue burden test is proper standard for review of abortion clinic regulations).

91. "When a fragmented Court decides a case and no single rationale explaining the result enjoys

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Two types of information requirements were at issue in *Casey*: 1) requirements that a physician give particular information to the woman (i.e. risks of abortion and childbirth, and the probable gestational age of the child), and 2) requirements that the woman be informed of the availability of information regarding fetal development and resources for adoption and abortion alternatives.[92] These requirements were addressed separately by the plurality opinion.

The Pennsylvania requirement that a woman be informed of the probable gestational age of the child was upheld in *Casey* because of the state's "important" interest in potential life, and because of the state's interest in protecting the psychological well being of women seeking abortions.[93] "Nor can it be doubted that most women considering an abortion would deem the impact on the fetus relevant, if not dispositive, to the decision."[94] However, the gestational age requirement could also be defended as protecting the woman's physical health, since the gestational age of the child is a relevant consideration in the selection of an abortion technique and impacts the probability of post-operative complications.[95]

The *Casey* court also upheld Pennsylvania's requirement that a woman be informed of the availability of state prepared materials describing fetal development and alternatives to abortion.

> We also see no reason why the State may not require doctors to inform a woman seeking an abortion of the availability of materials relating to the consequences to the fetus, even when those consequences have no direct relation to her health. An example illustrates the point. We would think it constitutional for the State to require that in order for there to be informed consent to a kidney transplant operation the recipient must be supplied with information about risks to the donor as well as risks to himself or herself.[96]

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the assent of five Justices, 'the holding of the Court may be viewed as that position taken by those Members who concurred in the judgments on the narrowest grounds. . . .'" Marks v. U.S., 430 U.S. 188, 193 (1977) (quoting Gregg v. Georgia, 428 U.S. 153, 169 n.15 (1976)).

92. *Casey*, 505 U.S. at 882.

93. *Id.* at 880.

94. *Id.* at 882.

95. "Although medical acceptability, and logistical factors are important, the most fundamental determinant of the set of abortion options open to a woman and her provider is the duration of the pregnancy to be terminated." David A. Grimes, *Sequelae of Abortion, in* MODERN METHODS OF INDUCING ABORTION 95, 105 (David T. Baird et al. eds., 1995).

96. *Casey*, 505 U.S. at 882-83.

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This expansion of permissible considerations to matters beyond those which can be shown to directly impact the woman's health, strongly suggests that it may be constitutional to enact legislation requiring a woman be provided truthful information regarding the possibility that a fetus may experience pain during the abortion.

However, even if it is permissible for the state to require that women be informed of fetal pain, the wording of any such legislation must be carefully drafted to avoid challenges due to vagueness. California legislation on fetal pain proposed in 1998 may have suffered from such infirmity. Section (c) of California Bill AB 1758, as amended in Assembly, required the physician "offer information and counseling on fetal pain."[97] This requirement, however, seemed to be modified by the language of section (f), "the pregnant woman shall sign a document that information and counseling on fetal pain was provided and that the physician offered anesthesia for the fetus."[98] It could be argued that subsection (c) merely requires information be offered, while subsection (f) requires the woman actually receive information and counseling. This ambiguity concerning what is required of physicians could have provided the basis for a constitutional challenge had the legislation been enacted.[99] As originally proposed, a fetal pain bill presented to the Texas House of Representatives suffered from the same defect.[100]

A more carefully crafted bill has been introduced this legislative session in New York. Assembly Bill 7940, and its companion Senate Bill 3385, requires a physician to "(a) orally and in person provide her [the pregnant woman] with information on fetal pain; and (b) personally give her the written material with information on fetal pain that has been prepared by the commissioner [of the New York State Health Department]" prior to performing an abortion in cases involving a fetus of twenty weeks or more in gestational age.[101]

According to the reasoning of *Casey*, the New York provision, if enacted, would have been constitutional. The plurality opinion in *Casey* found that it is constitutionally permissible to require physicians to offer materials prepared by others or provide actual information and counseling

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97. AB § 1758 §1(d)(2), 1997-98 Reg. Sec. (Cal. 1998), *available at* http://www.leginfo.ca.gov/pub/97-98/bill/asm/ab_1751-1800/ab_1758_bill_19980423_amended_asm.html.

98. *Id.*

99. The legislation died in committee by a vote of 8 in favor to 11 opposed, to passage of the bill. *See* Complete Bill History, *at* http://www.leginfo.ca.gov/pub/97-98/bill/asm/ab_1751-1800/ab_1758_vote_19980505_000001_asm_comm.html (last visited Nov. 1, 2002).

100. HB 1244 §170.054(b)(1)(B), 77thl Leg. (Tex. 2001), *available at* http://www.capitol.state.tx.us/tlo/billnbr.htm. As was the case with the California proposal, the Texas bill died in committee.

101. AB § 7940 § 2516 (1)(B), 2001-02 Reg. Sess. (NY 2001), *available at* http://assembly.state.ny.us/leg. *See* Walsh, *supra*, note 72.

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on fetal development.[102] The capacity of the fetus to feel pain is an aspect of fetal development of special concern to women considering abortion.[103] Therefore a law requiring physicians provide medically accurate information about fetal pain to women should be constitutional. This optimism is supported by post-*Casey* treatment of informed consent legislation by the lower federal courts.

In *Karlin v. Foust*,[104] the Court of Appeals for the Seventh Circuit reviewed a constitutional challenge to a statute similar to a fetal pain statute. The Wisconsin statute at issue required, among other things, that a woman be informed of "the probable anatomical and physiological characteristics of the woman's unborn child at the time the information is given."[105] Plaintiffs challenged this provision as unconstitutionally vague because "physicians have no way of knowing whether their descriptions of the 'probable' characteristics of the fetus are adequate or accurate enough to avoid liability."[106] The court rejected this argument and interpreted *Casey* as permitting state requirements that doctors "inform a woman seeking an abortion of information relating to the fetus, and the consequences of the abortion on the fetus, even when that information has no direct relation to the mother's health."[107] Only when it can be shown that the required information is false and misleading is such a requirement unconstitutional.[108]

The *Karlin* court buttressed its conclusion by affirming the trial court's interpretation of the statute that a physician is to inform the patient to the extent that providing such information is consistent with the individual physician's best medical judgment as to the patient's well being.[109] For example, if "a physician believes that no psychological trauma is associated with the abortion procedure to be used, that is what the statute requires him or her to tell the patient."[110] Recognizing the risk that this individual discretion might be read as an invitation to circumvent the requirements of the statute, the Court cautioned that protection from liability was dependent

102. Planned Parenthood v. Casey, 505 U.S. 833, 882-83 (1992).

103. "Patients may be frightened by antiabortion protesters or materials falsely alleging . . . that abortion causes fetal pain. Giving them facts and valid sources of information usually eliminates these fears." Anne Baker et al., *Informed Consent, Counseling, and Patient Preparation*, *in* A CLINICIAN'S GUIDE TO MEDICAL AND SURGICAL ABORTION 27, 27 (Maureen Paul et al. eds., 1999).

104. Karlin v. Foust, 188 F.3d 446, 453 (7th Cir. 1999).

105. *Id.* at 454 (discussing WIS. STAT. § 253.10(3)(c)1 (2002)).

106. *Id.* at 471.

107. *Id.* at 472, n.12.

108. *Id.*

109. *Id.* at 472-73.

110. *Id.* at 472.

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upon the exercise of the physician's best medical judgment based on the physician's training and experience.[111]

> Perhaps even more encouraging than *Karlin's* affirmation of informed consent statutes is the dicta contained in *Women's Medical Professional Corp. v. Voinovich.*[112] In reviewing a statute restricting D&X, also known as "partial birth" abortion, the court suggested that a fetal pain statute would be a reasonable manner of accommodating the state's interest in preventing cruelty to fetuses. "Assuming, however, that the fetus is conscious of the pain involved in the D & X procedure, it appears to this Court that the state could still seek to vindicate its asserted interest in preventing arguably unnecessary cruelty to the fetus, by regulating the procedure without banning it outright."[113]
>
> Although the testimony on this issue was not conclusive, one such possible regulation may require the physician to cut the umbilical cord prior to making an incision in the base of the skull, and to wait until the fetus dies as a result. Another possible regulation might require the use of local or general anesthetic, on the fetus or the mother. By use of such regulations, states could prevent arguably unnecessary cruelty in the abortion procedure, without taking away the right to seek a pre-viability abortion.[114]

If *Karlin* and *Voinovich* represent the approach federal courts would take in reviewing fetal pain statutes, it would be constitutional to require abortion providers to inform women of the possibility that the fetus would experience fetal pain during the abortion process, and offer to administer

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111. *Id.* at 473.

112. Women's Med. Prof'l Corp. v. Voinovich, 911 F. Supp. 1051 (S.D. Ohio 1995), *aff'd on other grounds*, 130 F.3d 187 (6th Cir. 1997). The court addressed the state's argument that the Ohio ban of D&X abortion was in furtherance of the state's interest in avoiding unnecessary cruelty to the fetus during the abortion process. *Id.* The court agreed that the state has an interest in preventing unnecessary cruelty to fetuses. *Id.* at 1072. However, the evidence on the existence of fetal pain was contradictory and the ban at issue was not sufficiently narrow in pursuit of the state's interest. *Id.* at 1078.

113. *Id.* at 1075.

114. *Id. See also* Planned Parenthood v. Doyle, 162 F.3d 463, 470 (7th Cir. 1998). "No argument is made, and we are not aware of any basis for such an argument, that if a fetus feels pain, the pain is worse when the fetus is killed in the birth canal than when death occurs a moment earlier in the womb." *Id.* The court in *Doyle* concluded by stating, "therefore Wisconsin's statute cannot be analogized to statutes that prohibit cruelty to animals." *Id. See also* Eubanks v. Stengel, 28 F. Supp. 2d 1024, 1042 (W.D. Ky. 1998) (stating that "it is hard to imagine that even the gruesome partial birth abortion procedure would be more painful to a fetus than being torn limb from limb as in an ordinary D & E procedure.").

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fetal anesthesia to minimize the pain. Even if other courts interpret *Casey* more restrictively, under the narrowest construction of *Casey*, it is constitutional to require that providers inform women of the availability of state-prepared materials regarding fetal pain and to provide those materials upon request.

IV. OBJECTIONS TO LEGAL PROTECTION OF THE FETUS FROM PAIN AND POSSIBLE RESPONSES

The constitutionality of any proposed statute requiring that women seeking abortions be informed of fetal pain and offered fetal anesthesia, however, is largely irrelevant if the appropriate legislative or policy making body is unpersuaded as to the need or prudence of such a requirement. Establishing that the fetus is physiologically capable of experiencing pain is just the first step in making the case for the legislation. Beyond disputing the existence of the fetal capacity to experience pain, opponents of proposed legislation in the various states have raised several objections that must be addressed in order to obtain public support for fetal pain legislation.

By far, the most serious objection, if true, is that administering anesthesia to the fetus would pose a health risk to the mother.[115] Opponents of fetal pain legislation have argued that the health of women would be adversely affected by the use of fetal anesthesia. This simply is not relevant where the statutory requirement is merely informational. A physician has a fiduciary duty to inform the woman of any known adverse affects from any aspect of a proposed treatment.[116] In the rare case of a woman, whose physical health or life would be adversely affected to a medically significant degree by the use of fetal anesthetic, the physician would have a duty to so advise her.[117]

In the vast majority of cases, however, use of fetal anesthetic poses no medically significant risk to the mother.[118] This was established in hearings before the United States Senate Committee evaluating legislation banning

115. Memorandum from the California Chapter of the American Association of University Women, to Martin Gallegos, Chair of the Assembly Health Committee (April 27, 1998) (on file with author); Letter from the American College of Obstetricians and Gynecologists, District IX, to Martin Gallegos, Chair of the Assembly Health Committee (April 23, 1998) (on file with author).

116. *See generally* W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS §§ 9, 32 (5th ed. 1984).

117. *Id.* § 32, at 189-90.

118. *See The Partial-Birth Abortion Ban Act of 1995: Hearing Before the Senate Comm. on the Judiciary*, 104th Cong. 107-08 (1995) [hereinafter *Senate Hearings*] (statement of Dr. Norig Ellison).

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partial birth abortion. Responding to pregnant patients' alarm caused by abortion rights activists' claims that maternal anesthetic caused the death of the fetus prior to performance of the D&X procedure, the American Society of Anesthesiologists testified that the separate physical integrity of the mother and fetus minimized any collateral affect of maternal anesthesia on the fetus.[119]

Should exceptional circumstances exist where use of fetal anesthetic poses a threat to the mother's life or physical health, the physician would have an obligation to inform the woman of these risks and, doubtless, she would decline consent to use of the anesthetic.[120]

A much weaker, but related, objection was raised by California physicians' groups, who protested that any legally required discussion of fetal pain was an unwarranted intrusion into the physician-patient relationship.[121] This objection relies upon pre-*Casey* rhetoric suggesting that a state may not mandate any particular information be given to a woman considering abortion.[122] Yet any support earlier cases may lend to this complaint is directly repudiated in *Casey*. Justices O'Connor, Kennedy, and Souter recognized,

> To the extent *Akron I* and *Thornburgh* find a constitutional violation when the government requires, as it does here, the giving of truthful, nonmisleading information about the nature of the procedure, the attendant health risks and those of childbirth, and the 'probable gestational age' of the fetus, those cases go too far, are inconsistent with *Roe's* acknowledgement of an important interest in potential life, and are overruled."[123]

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119. *Id.*

120. The California bill required the physician to inform the woman of "the effects [of fetal anesthesia] on both the fetus and the pregnant woman when anesthesia is administered to the fetus." AB § 1758 §1(d)(2), 1997-98 Reg. Sess. (Cal. 1998). The Texas bill excused use of fetal anesthesia in cases where the physician reasonably believed its use would "increase the risk to the woman's life or physical health" or if the woman refused to consent to its use. HB 1244 §170.054(b)(1)(B), 77th Leg. (Tex. 2001). Similarly the New York legislation excludes use of fetal anesthetic in cases where the physician reasonably believes "the administration of an anesthetic or analgesic would cause the pregnant woman's death or would create a serious risk of a substantial and irreversible impairment of a major bodily function." AB § 7940 § 2516 (1)(B), 2001-02 Reg. Sess. (NY 2001).

121. *See* Letter from the California Medical Association, to Martin Gallegos, Chair of the Assembly Health Committee (April 30, 1998) (on file with author); Letter from The American College of Obstetricians and Gynecologists, District IX, to Martin Gallegos, Chair of the Assembly Health Committee (April 23, 1998) (on file with author); Letter from The California District American Academy of Pediatrics, to Assembly Member George Runner (no date on file) (on file with author).

122. *Compare* Planned Parenthood League v. Bellotti, 641 F.2d 1006, 1021 (1st Cir. 1981).

123. Planned Parenthood v. Casey, 505 U.S. 833, 882 (1992).

Whatever constitutional status the doctor-patient relation may have as a general matter, in

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The plurality opinion goes on to specifically approve the providing of information "relating to the consequences to the fetus, even when those consequences have no direct relation to her [the woman's] health."[124]

Various groups have also objected to offering women information about fetal pain and anesthesia on the basis that abortions after twelve weeks are rare.[125] It is true that a substantial majority of abortions in the United States occur within the first twelve weeks of gestation.[126] Nonetheless, this objection seems unrelated to the issue of whether women obtaining abortions after a pregnancy has progressed beyond twelve weeks, should be informed of their opportunity to request fetal anesthesia or analgesic, foreclosing the possibility that the fetus would experience pain during the termination of the pregnancy.

Opponents of fetal pain legislation have also objected to informing women of the ability of the fetus to experience pain, arguing that such information unreasonably increases the emotional burden for families "already facing a devastating personal situation."[127] Implicit in this objection are two assumptions: first, that the overwhelming majority of women seeking abortions after twelve weeks are doing so because of the discovery of fetal abnormalities or the development of a pregnancy-related condition threatening the mother's health or life, and second, that being informed of the ability to foreclose fetal pain through the use of fetal anesthetic will be an additional burden to an already emotionally fragile woman. The first assumption is highly contested, and the second is irrational.

> the present context it is derivative of the woman's position. . . . Thus, a requirement that a doctor give a woman certain information as part of obtaining her consent to an abortion is, for constitutional purposes, no different from a requirement that a doctor give specific information about any medical procedure.

Id. at 884.

124. *Id.* at 882.

125. For examples of opponents arguing that third trimester abortions are rare, *see* Jenifer Warren, *California and the West: For Aborted Fetuses, A Question of Pain*, L.A. TIMES, Jan 4, 1998, at 3A; Memorandum from the California Chapter of the American Association of University Women, to Martin Gallegos, Chair of the Assembly Health Committee (April 27, 1998) (on file with author); Letter from the American College of Obstetricians and Gynecologists, District IX, to Martin Gallegos, Chair of the Assembly Health Committee (April 23, 1998) (on file with author).

126. According to the most recent figures from the Centers for Disease Control issued in the Morbidity and Mortality Weekly Report, 88% of all abortions obtained in 1999 occurred before the thirteenth week of pregnancy. Julie L. Gerberding et al., *Abortion Surveillance: United States, 1999*, 51 MMWR 1 (2002), *available at* http://www.cdc.gov/mmwr/PDF/ss/ss5109.pdf.

127. Letter from the California Medical Association, to Martin Gallegos, Chair of the Assembly Health Committee (April 30, 1998) (on file with author). *See also* Warren, *supra* note 125, at 3A.

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During the 1997 congressional debates surrounding a national ban on the procedure known as a "D&X abortion" or "partial birth abortion," Ron Fitzsimmons, a spokesman for the National Abortion Federation, created a political firestorm when he revealed to the New York Times that the majority of D&X abortions involve "a healthy mother with a healthy fetus that is twenty weeks or more along."[128] Subsequently he estimated that four to five thousand D&X abortions occur annually.[129] Planned Parenthood Federation of America lists a variety of reasons women obtain abortions after the twelfth week of pregnancy, including having to travel long distances to obtain an abortion, having to accumulate financial resources from which to pay for the abortion, and having to comply with state laws regarding parental involvement in minors' decisions to obtain abortions.[130] None of these reasons suggest that a woman would be particularly fragile emotionally.

As for the claim that women will be "devastated" if told of the possibility that the fetus feels pain, this reflects a false and out-dated paternalism toward women seeking abortions. When contemplating their response to problem pregnancies, women often ask about the ability of the fetus to feel pain.[131] By withholding information, abortion providers risk women subsequently learning of the emerging consensus surrounding fetal pain and experiencing great regret.[132] Perhaps even more importantly, women are deprived of the opportunity to ensure the fetus feels no pain during the abortion through the use of modified procedures or fetal anesthetic.

A related objection is that for those abortions involving fetal abnormalities, there is little reason to fear that the fetus suffers pain because

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128. David Stout, *An Abortion Rights Advocate Says He Lied About Procedure*, N.Y. TIMES, FEB. 26, 1997, at A12.

129. Douglas Johnson, *Comforting Myths About Abortion*, WALL ST. J., May 14, 2001. *Compare* Lawrence B. Finer & Stanley K. Henshaw, *Incidence and Services in the United States in 2000*, 35 PERSPECTIVES ON SEXUAL & REPRODUCTIVE HEALTH 6 (Jan./Feb. 2003), *available at* http://www.agi-usa.org/pubs/journals/35006303.pdf (last visited Feb. 22, 2003).

130. PLANNED PARENTHOOD FEDERATION OF AMERICA, FACT SHEET: ABORTION AFTER THE FIRST TRIMESTER (1997), *available at* http://www.plannedparenthood.org/library/facts/abotaft1st_010600.html (last visited Nov. 1, 2002).

131. Baker et al., *supra* note 103, at 27.

132. Post-abortion regret is a common experience.

> In the USA, it is estimated that 20% of women suffer from severe feelings of loss, grief and regret. These feelings may progress to anger (at herself and at her partner), or to depression and even obsession. These feelings are more likely to arise in women who: lack social support; whose decision to terminate the pregnancy is in conflict with their family or their religious beliefs; who feel they were pressurized into having an abortion; who have abortion because of fetal anomaly; and who are very young or have a very late abortion.

Anna Glasier, *Counseling for Abortion*, *in* MODERN METHODS OF INDUCING ABORTION 112, 117 (David T. Baird et al. eds., 1995).

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the brain and/or nervous system of those fetuses may have already been severely compromised.[133] In the rare case where this is so, a physician should inform the woman of these facts. There is no doubt this additional information will influence her decision regarding the use of fetal anesthetic. But the existence of these rare cases should not excuse the physician from a duty to inform women of the possibility of fetal pain.

Additional objections have been raised based on misinformation regarding the procedures involved in late term abortions. The American Association of University Women advised California legislators that it is customary practice in third trimester abortions to induce death prior to removal of the fetus, making anesthesia unnecessary.[134] Representatives of a California district of the American College of Obstetricians and Gynecologists argued that informing women of the possibility of fetal pain is unnecessary because third trimester abortions most often occur in hospitals and the doctors performing them must obtain approval from hospital ethics committees.[135] In fact, neither of these statements addresses abortions occurring during the mid-trimester of pregnancy, and neither is true in the majority of cases involving abortions after twelve weeks of pregnancy. According to the most recently published medical text on abortion, only seven percent of all abortions were performed in a hospital in 1992.[136] During that year, only seventeen percent of abortions performed after twenty weeks of gestation occurred in a hospital.[137] Similarly, while a few abortion providers insure the death of the fetus through lethal injection

133. Victoria Tepe, *Fetal Pain: What We (Don't) Know, and Why We Need to Know It*, THE BODY POLITIC, Mar. 1997, at 8.

134. Memorandum from the California Chapter of the American Association of University Women, to Martin Gallegos, Chair of the Assembly Health Committee (April 27, 1998) (on file with author). *See also* Warren, *supra* note 125, at 3A (quoting Mark I. Evans, M.D.).

135. Warren, *supra* note 125, at 3A (quoting Charlotte Newhart, chief administrative officer of the American College of Obstetricians and Gynecologists in California); Letter from the American College of Obstetricians and Gynecologists, District IX, to Martin Gallegos, Chair of the Assembly Health Committee, District IX (April 23, 1998) (on file with author).

136. Stanley K. Henshaw, *Unintended Pregnancy and Abortion: A Public Health Perspective*, *in* A CLINICIAN'S GUIDE TO MEDICAL AND SURGICAL ABORTIONS 19 (Maureen Paul et al., eds. 1999). *See also* Susan Dudley, *What is Surgical Abortion?*, National Abortion Federation (1996) (majority of abortions occurring after thirteenth week are done on an outpatient basis), *at* http://www.prochoice.org.

137. *See* Henshaw, *supra* note 136, at 20 (providing that "[a] tabulation of data on approximately 300,000 abortions in 14 states in 1992 indicates that even after 20 weeks 83% were performed outside of hospitals.").

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prior to beginning removal in a mid or third-trimester abortion,[138] a number of providers consider it unnecessary, and even dangerous in some cases.[139]

V. CONCLUSION

In the end, legislators must confront whether women are entitled to know of the growing body of medical literature establishing that the human fetus is capable of experiencing pain after the first trimester of pregnancy. It is not a sufficient answer to "assume" that women know, nor should legislators assume that abortion providers will voluntarily inform women of this research. Women have a right to know the probable consequences of their choices. Many want to know the effect of the abortion on the fetus.[140] It is the worst sort of paternalism that suggests that because women may be discomforted by this information, and may even make different choices about continuing their pregnancy, that they should not be informed that they can prevent unnecessary pain to the fetus. Legislation requiring that women be informed of their ability to foreclose the possibility of fetal pain facilitates informed choices by women, and may reduce to some small degree the suffering associated with abortion.

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138. Dr. Hern, Assistant Clinical Professor in the Department of Obstetrics & Gynecology at the University of Colorado Health Sciences Center, told the Senate Judiciary Committee:

> [An] approach, which I favor and which is followed by some other physicians, is to induce fetal death on the first or second day of treatment of the cervix. This requires an injection of a medication into the fetus under (usually) ultrasound guidance. This is the procedure which I and one or two other physicians follow. It is accompanied by other forms of treatment, but these vary according to the physician. In the case of a breech presentation of a dead fetus, the procedure described by sponsors of [the 1995 bill] is routinely followed.

See Senate Hearings, *supra* note 119 (statement of Warren M. Hern, M.D.).

139. *See* Evans v. Kelley, 977 F. Supp. 1283, 1301 (E.D. Mich. 1997) (discussing the risks attendant to lethal injections to the fetus).

140. *See* Baker et al., *supra* note 103, at 27.

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APPENDIX TO THE PREPARED STATEMENT OF TERESA S. COLLETT, PROFESSOR OF LAW, UNIVERSITY OF ST. THOMAS SCHOOL OF LAW: *THE SCIENCE, LAW, AND POLITICS OF FETAL PAIN LEGISLATION.* HARVARD LAW REVIEW. VOL. 115:2010 2002

THE SCIENCE, LAW, AND POLITICS OF FETAL PAIN LEGISLATION

Most people prefer not to inflict gratuitous pain on other sentient beings, especially other humans. What, then, should be the legal system's reaction to the mounting evidence that in late-term abortions doctors are inflicting just such pain on fetuses who have the anatomical, physiological, and neurological capacity to experience it? The pain being inflicted is gratuitous because it can be easily avoided with no significant increases in cost or health risk by the administration of targeted fetal pain relief.

If informed that an abortion is likely to cause pain to the fetus and given a choice between a procedure that would inflict fetal pain and a slightly more expensive but safe procedure that would not do so, would not most women facing a late-term abortion choose the latter? Such is the premise of this Note, which argues that states should pass legislation to decrease the gratuitous infliction of pain in late-term abortions. Legislation is necessary for informed choice on this matter because most women are not given the choice to make for themselves. Legislation is appropriate because "[t]he State's constitutional authority is a vital means for citizens to address [the] grave and serious issues [surrounding abortion], as [we] must if we are to progress in knowledge and understanding and in the attainment of some degree of consensus."[1]

Part I of this Note describes the scientific evidence supporting the claims that the human fetus *may* experience pain as early as the thirteenth week of development, *probably* experiences pain by the twentieth week, and *almost definitely* experiences pain by the twenty-eighth week. Part II argues that legislation to address fetal pain during late-term abortions is necessary because physicians performing such procedures usually do not treat fetal pain as a distinct problem and therefore typically do not provide women with the option of fetal pain relief. Part III discusses legal and prudential considerations relevant to the design of such legislation and concludes with proposed model legislation. Part IV explains why the proposed legislation passes constitutional muster. Part V explores the politics of fetal pain in light of the constitutive function of the law.

I. CAN A HUMAN FETUS FEEL PAIN?

Determining whether the human fetus can feel pain first requires a conception of what "feeling pain" means. Determining how any other

[1] Stenberg v. Carhart, 530 U.S. 914, 957 (2000) (Kennedy, J., dissenting).

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sentient being feels pain is problematic, given that pain is experienced "internally" and that each individual only has direct access to his or her own sensory experiences.

The problem of pain is a particular version of the general problem described by philosophers as the problem of other minds: without access to the internal, subjective consciousness of any other being, it is impossible to verify whether that being has conscious experience.[2] This is not much of a problem for most people most of the time, at least with regard to other people's pain. The doctor deciding how to treat a patient, for example, is generally not troubled by lack of access to the phenomenal experience of her patient's pain. The patient can usually describe the pain (for example, as sharp, dull, or throbbing) and indicate where it is located. The doctor can also ask questions and use empathy and imagination to help her understand the patient's self-report. But verbal communication is not always necessary. Consider, for instance, the still-conscious accident victim wheeled into the emergency room. One look at the angle of the victim's leg or the blood streaming from his wounds signals to the doctor that the patient requires pain relief. The doctor does not stop to ponder whether the person is suffering or just looks like he is suffering but rather interprets what she sees in light of context and experience and acts accordingly.

The problem becomes more difficult when words cannot bridge the experiential gap — for instance, when the doctor's patient is an infant. The medical consensus on whether it is appropriate to administer anesthesia or analgesia to infants has changed in the past two decades.[3] As of the late 1980s, it was within standard practice not to administer pain relief to infants either in the operating room or postoperatively.[4] The prevailing view now, however, is that "humane considerations should apply as forcefully to the care of neonates and young, nonverbal infants as they do to children and adults in similar painful and stressful situations."[5]

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[2] "The problem of other minds is the problem of whether one can know whether anybody else has a mind and, by extension, whether they have thoughts, perceptual experiences, and pains." David Benatar & Michael Benatar, *A Pain in the Fetus: Toward Ending Confusion About Fetal Pain*, 15 BIOETHICS 57, 61 (2001).

[3] *See* Nance Cunningham Butler, *Infants, Pain and What Health Care Professionals Should Want To Know Now — An Issue of Epistemology and Ethics*, 3 BIOETHICS 181, 181–82 (1989) (describing the 1987 statement of the American Academy of Pediatrics, subsequently adopted by the American Society of Anesthesiologists, that countered the widespread view that pain prevention and pain relief were not medically indicated for infants).

[4] *See id.* at 181.

[5] K.J.S. Anand & P.R. Hickey, *Pain and Its Effects in the Human Neonate and Fetus*, 317 NEW ENG. J. MED. 1321, 1326 (1987).

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The experience of animals provides yet another twist on the problem of knowing whether a particular being experiences pain. Dogs cannot speak, nor do they have the same nervous system as humans, and yet most people are sure that dogs experience pain. Through a combination of empathy and reasoning, we come to believe not only that the dog that is kicked feels pain, but also that the dog knows the difference between being stumbled over and being kicked.[6]

If direct access to the subjective states of another being were necessary to establish that he, she, or it feels pain, it would be impossible to "know" or "prove" that any other human or animal feels pain. Instead of imposing such a standard of proof on ourselves, however, we make do with inference from context, experience, knowledge of anatomical capabilities, and behavioral observation. Such inference is easiest in the case of other human adults, more difficult in the case of newborns and infants, and perhaps more difficult still in the case of animals.

When trying to determine whether a particular being feels pain, the only alternative to a stubborn solipsism is the careful sifting of observation and empathy. In the case of a human fetus, this sifting must begin with consideration of the relevant anatomical and behavioral indicia.

Assuming that the fully developed, mature human nervous system equips people to feel pain, at what stage in physiological and neurological development is the "hardware" in place? It is unlikely that there is one particular moment at which pain awareness flips from off to on. Consciousness of pain, like consciousness itself, may operate more like a dimmer switch.[7] Particular moments in fetal development may correspond to increases in fetal consciousness, including consciousness of pain.

The physical development of the fetal nervous system is well understood, though debate continues over the significance of particular stages. Nerve receptors to sense outside stimuli, neural pathways to carry the message from the receptors, and interpretive mechanisms to respond to the stimulus are all necessary for the human experience of pain. Sensory receptors begin to appear in the perioral area in the sev-

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[6] *Cf.* OLIVER WENDELL HOLMES, JR., THE COMMON LAW 3 (1881).

[7] Vivette Glover & Nicholas M. Fisk, *Fetal Pain: Implications for Research and Practice*, 106 BRIT. J. OBSTETRICS & GYNAECOLOGY 881 (1999). This analogy implies a developmental continuum in the capacity to experience pain. The intensity of pain, however, is not best thought of as a dimmer switch, given that fetuses and newborns may actually experience more intense pain than adults exposed to the same painful stimulus. *See Effects of Anesthesia During a Partial-Birth Abortion: Hearing Before the Subcomm. on the Constitution of the House Comm. on the Judiciary*, 104th Cong. 147–48 (1996) [hereinafter *Effects of Anesthesia During a Partial-Birth Abortion*] (statement of Dr. Jean A. Wright, Medical Dir., Egleston Children's Hospital, Emory University) (reviewing the scientific evidence indicating that "preterm neonates have greater pain sensitivity than term neonates or older infants").

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enth week of gestation.[8] They spread to the rest of the face, the palms of the hands, and the soles of the feet by the eleventh week, to the trunk and nearby parts of the arms and legs by the fifteenth week, and to all skin surfaces by the twentieth week.[9] Neural pathways develop throughout gestation.[10]

The current scientific consensus is that no conscious awareness of stimuli is present in the human fetus at least until neural pathways link to the cortex or the subplate zone,[11] and most likely not until such pathways link the thalamus and the subplate zone or cortex.[12] In light of current knowledge, the "early limit on when it is likely that the fetus might be aware of anything" is at thirteen weeks, when the first neural pathways reach the subplate zone.[13] Any legislation addressing fetal pain premised on present knowledge, therefore, would not apply to the eighty-six percent of abortions performed in the first twelve weeks of pregnancy.[14]

Connections between the thalamus and the cortex — which most scientists believe are necessary for the human fetus to perceive pain — form between the twentieth and the twenty-fourth week.[15] One scientist who has participated in many studies of fetal anatomy and neurology has concluded that "from mid-gestation [twenty weeks] onwards it seems that extrinsic influences (via thalamo-cortical pathways) can act

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[8] Anand & Hickey, *supra* note 5, at 1322.

[9] *Id.*

[10] *See generally* WILLIAM J. LARSEN, HUMAN EMBRYOLOGY 107–17 (2d ed. 1997) (describing the development of the peripheral nervous system in the fetus).

[11] The subplate zone is "a layer of neurones below the cortex that is specific to the fetus." Glover & Fisk, *supra* note 7, at 881.

[12] *See, e.g.*, Benatar & Benatar, *supra* note 2, at 64 ("It is certainly the case that the perception of pain as a result of external noxious stimuli would not be possible until a complete neuronal connection is established from peripheral nociceptors to cerebral cortex (via spinal cord, brain stem and thalamus)."). This view is not unanimously held. The Commission of Inquiry into Fetal Sentience, established by the charity CARE, issued a report in 1996 that challenged the assertion that the cortex is the sole region of awareness. *See* COMM'N OF INQUIRY INTO FETAL SENTIENCE, HUMAN SENTIENCE BEFORE BIRTH § 5.3, *available at* http://www.care.org.uk/resource/pub/fs/index.htm (last visited Apr. 7, 2002). The timing of the onset of sentience seems to be revealed to be earlier and earlier as more research is done in this area. *See* Teresa Stanton Collett, Fetal Pain Legislation: Is It Viable? 2–11 (2002) (unpublished draft, on file with the Harvard Law School Library) (describing developments in fetal pain research over the past decade).

[13] Glover & Fisk, *supra* note 7, at 882. The first neural pathways reach the cortex at about sixteen weeks. *Id.*

[14] According to the most recent statistics from the Centers for Disease Control, at least 54.2% of abortions in 1997 were performed on fetuses of eight weeks gestational age or younger, 21.5% on fetuses of nine to ten weeks gestational age, 10.5% on fetuses of eleven to twelve weeks, 6.1% on fetuses of thirteen to fifteen weeks, 4.2% on fetuses of sixteen to twenty weeks, and 1.4% on fetuses of twenty-one weeks of gestational age or older. Lisa M. Koonin, Lilo T. Strauss, Camaryn E. Chrisman & Wilda Y. Parker, *Abortion Surveillance — United States, 1997*, 49 MORBIDITY & MORTALITY WKLY. REP. 1, 27–28 tbl.6 (2000).

[15] *See* Anand & Hickey, *supra* note 5, at 1322.

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through demonstrable synapses, which, if physiologically active, may be involved in the modulation of the activity of the fetal neocortex."[16] In other words, by twenty weeks, the fetus may be able to sense, interpret, and respond to pain signals that travel via complex neural pathways.

The development of anatomical structures sufficient to provide a neural substrate for the experience of pain by the human fetus can and should be interpreted in light of physiological and behavioral responses to noxious stimuli. Physiological evidence includes hormonal stress responses and electroencephalography readings (EEGs). Researchers investigating fetal stress response in reaction to a noxious stimulus compared cortisol and endorphin levels after performing two procedures — one affecting an area where the fetus had sensory receptors and another where it lacked them.[17] These researchers found elevated levels of cortisol and endorphins following the procedure in the sensitive area, and no similar elevation following the procedure in the nonsensitive area.[18] They concluded that "the fetus mounts a similar hormonal response to that which would be mounted by older children and adults to stimuli which they would find painful."[19] EEG studies of preterm babies[20] indicate evoked responses to visual and somatosensory stimuli as early as twenty-four weeks, and well-developed responses by twenty-seven weeks.[21]

Behavioral evidence includes observation of physical movements and facial expressions. Simple behavioral responses to external stimuli first appear around eight weeks and increase in complexity over the next few weeks.[22] The fetus "can respond to sound from 20 weeks and discriminate between different tones from 28 weeks."[23] Preterm babies older than twenty-eight weeks exhibit distinctive facial expressions characteristic of older infants and adults subject to painful stimuli in response to a heel prick.[24]

One must not jump directly from observing that the fetus reacts to an external stimulus to concluding that the fetus must have consciously "felt" the stimulus. "External" evidence, such as the anatomi-

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[16] Glover & Fisk, *supra* note 7, at 881 (quoting personal communication with I. Kostovic).

[17] Xenophon Giannakoulopoulos, Waldo Sepulveda, Ploutarchos Kourtis, Vivette Glover & Nicholas M. Fisk, *Fetal Plasma Cortisol and β-Endorphin Response to Intrauterine Needling*, 344 LANCET 77, 77 (1994).

[18] *Id.* at 79.

[19] *Id.* at 80.

[20] This Note uses "fetus" to denote a human being in utero and "preterm baby" to denote a human being ex utero (delivered before the due date).

[21] Glover & Fisk, *supra* note 7, at 882.

[22] *Id.*

[23] *Id.*

[24] Benatar & Benatar, *supra* note 2, at 71.

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cal, physiological, and behavioral evidence described in this Part, must be interpreted as a whole, and no one piece of external evidence can support a conclusive inference regarding the fetus's "internal" experience.

Comparison of two situations may illuminate the distinction between reasonable and unreasonable inferences of pain. The anti-abortion video *The Silent Scream*, a realtime ultrasound of a suction abortion at the twelfth week of development,[25] provides an example of the latter. The title of the video comes from the way in which the fetus opens its mouth after the suction instrument locates its body though the fetus has moved away from the instrument. Given the present state of knowledge about fetal development, these fetal reactions are best interpreted as reflex responses rather than responses to pain. A fetus at twelve weeks of gestation does not have a developed cortex, which is a necessary condition, under the current consensus, for the sensation of pain. Because one cannot directly infer sensation from the presence of reflex actions, and because the fetus has not reached a stage of neural development at which it can interpret "pain messages," the fetus probably did not "feel" the tip of the instrument.[26]

An example of a reasonable inference of pain appears in the following excerpt from congressional testimony regarding a nurse's observation of a partial-birth abortion performed on a fetus of twenty-six and a half weeks:

> The baby's little fingers were clasping and unclasping, and his feet were kicking. Then the doctor stuck the scissors through the back of his head, and the baby's arms jerked out, a startle reaction, in a flinch like a baby does when you throw him up in the air and he thinks he is going to fall. The doctor opened up the scissors, stuck a high-powered suction tube into the opening, and sucked the baby's brains out. Now the baby went completely limp.[27]

Given the gestational age of this fetus and the anatomical, physiological, and behavioral evidence from studies of fetuses at similar stages of development, it would be reasonable to conclude that the fetus felt pain when the doctor inserted the scissors at the base of its skull during the abortion.[28]

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[25] THE SILENT SCREAM (American Portrait Films 1984).

[26] The movie does not itself make that inference. Rather, the movie points to the fetus's elevated heart rate and increasingly agitated movements away from the suction tip as evidence that the fetus senses danger. *See* THE SILENT SCREAM, http://www.silentscream.org/silent_e.htm (script) (last visited Apr. 7, 2002).

[27] *Effects of Anesthesia During a Partial-Birth Abortion*, *supra* note 7, at 311 (statement of Brenda Pratt Shafer, Registered Nurse).

[28] *Compare id.* at 293–94 (remarks of Rep. Henry J. Hyde) (concluding from the testimony of four medical specialists that "we're talking about a lot of pain, I would think, . . . [and] it's an ac-

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II. THE NEED FOR FETAL PAIN LEGISLATION

This Note adopts a simple premise: given the choice between a procedure that would inflict fetal pain and a marginally more expensive procedure involving a longer exposure to pain relief that would prevent fetal pain, most women would prefer the latter. If this premise were true and if the market for late-term abortions functioned perfectly, one would expect that physicians would regularly administer pain relief to fetuses as part of late-term abortion procedures. There is no indication that physicians presently do so.

Outside of the abortion context, it is clear that fetal pain matters to women and to physicians who perform surgical procedures involving fetuses. Medical texts recommend that a doctor performing fetal surgery administer pain relief effective for the fetus as well as for the pregnant woman.[29] Physicians performing in utero surgeries routinely provide targeted fetal pain relief.[30] It would be surprising if the mothers of the fetuses being operated on (and the fathers, for that matter) were indifferent to the infliction of fetal pain.[31]

People act differently when abortion is involved. In discussing abortion-related legislation, some doctors deny that any fetus can feel

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complishment if we could ever get a concession that the unborn child feels a hell of a lot of pain in this process"), *with id.* at 294–96 (remarks of Rep. Patricia Schroeder) (declining to so concede).

[29] One text on obstetric pain relief summarizes:

> [I]t is possible to consider the fetus as a separate entity within the mother with specific anesthetic requirements, for lack of movement, for example, provided by muscle relaxants injected directly into the fetus, not experienced solely as a side effect. Analgesia might similarly be considered and again administered directly to the fetus without maternal-to-fetal transport considerations. In this way, the anesthesiologist could develop a tailor-made anesthetic regimen for the fetus complete and separate from that of the mother.

John W. Seeds & Barry C. Corke, *Anesthesia for Fetal Intervention*, *in* PRINCIPLES AND PRACTICE OF OBSTETRIC ANALGESIA AND ANESTHESIA 1241, 1247 (John J. Bonica & John S. McDonald eds., 1995).

[30] *See Effects of Anesthesia During a Partial-Birth Abortion*, *supra* note 7, at 288 (statement of Dr. David J. Birnbach, Dir. of Obstetric Anesthesiology, St. Luke's-Roosevelt Hosp. Ctr.) ("Having administered anesthesia for fetal surgery, I know that on occasion we need to administer anesthesia directly to the fetus because even at these early ages the fetus moves away from the pain of the stimulation."); *id.* (statement of Dr. David H. Chestnut, Chairman, Dep't of Anesthesiology, Univ. of Ala. at Birmingham) ("[A]t the University of California at San Francisco, which is the leading center in the world for performance of fetal surgery, . . . even though the mother is receiving heavy, deep doses of general anesthesia, those physicians give additional anesthetic drugs directly to the fetus during surgery in order to make certain that the fetus does not experience pain during the procedure.").

[31] *Cf.* Butler, *supra* note 3, at 181–82 (describing the role of Jill Lawson, the "mother of a premature infant[, who] discovered that during the surgery performed on her baby before his death, he was conscious, paralyzed, and without pain relief[,]" in pushing for greater appreciation in the medical community of the pain felt by premature infants).

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pain[32] despite substantial evidence to the contrary.[33] Though some doctors perform abortion procedures that minimize fetal pain (as a side effect of a procedure performed in a pain-minimizing way for unrelated reasons),[34] current medical practice does not include targeted fetal pain relief in late-term abortion procedures. The issue is primarily one of timing. Physicians performing late-term abortions generally administer pain relief to the pregnant woman in the form of opioid analgesics (alone or in combination with general anesthesia).[35] Most analgesics and anesthestics administered to the pregnant woman cross the placental barrier, but their effect on the fetus is delayed because it takes time for such drugs to reach full equilibration in the fetus[36] and because passage through the fetus's liver and blood stream dilutes drug concentration in some circumstances.[37] This time lag is significant because most physicians presently perform abortion procedures almost immediately after administering pain relief, without the delay necessary to allow for effective transmission to the fetus.[38] Because of this delay, these drugs must be administered early enough before the procedure for full effectiveness in providing fetal pain relief.[39] The only increased health risks posed are those associated with longer ma-

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[32] *See Effects of Anesthesia During a Partial-Birth Abortion*, *supra* note 7, at 289 (letter from Dr. Mitchell Creinin, Ass't Prof. & Dir. of Family Planning & Family Planning Research, Magee-Womens Hosp.) [hereinafter Creinin letter] ("As a physician, I can assure you that there is no such thing as pain to a fetus; plain and simple, pain does not exist to a fetus. Any doctor who states otherwise is flat out lying and twisting medical data.").

[33] *See supra* Part I; *see also Effects of Anesthesia During a Partial-Birth Abortion*, *supra* note 7, at 288 (statement of Dr. Norig Ellison, President, Am. Soc'y of Anesthesiologists) ("I find it inconceivable that any physician . . . would attach his name to a letter like that.") (commenting on Creinin letter, *supra* note 32).

[34] For example, one doctor has indicated that he typically causes fetal death by injecting digoxin and lidocaine directly into the fetus's heart when performing a partial-birth abortion on fetuses with a gestational age of twenty weeks or more. Carhart v. Stenberg, 11 F. Supp. 2d 1099, 1106 (D. Neb. 1998) (describing the testimony of Dr. Leroy Carhart).

[35] *See Effects of Anesthesia During a Partial-Birth Abortion*, *supra* note 7, at 356 (letter from Dr. Lewis H. Koplik) [hereinafter Koplik letter] (discussing Dr. Koplik's and Dr. James McMahon's practices of administering Versed and Fentanyl when performing abortions).

[36] ROYAL COLLEGE OF OBSTETRICIANS AND GYNAECOLOGISTS, FETAL AWARENESS: REPORT OF A WORKING PARTY 20 (1997).

[37] *Id.* at 21.

[38] A survey in England asked "[a]naesthetists working in all clinics approved to perform terminations at 20–24 weeks' gestation . . . to provide information on whether premedication was used, what agents and doses were used for induction and maintenance of anaesthesia, and how soon after induction of anaesthesia the procedure was started." *Id.* at 13. This survey found that "no sedative premedication was given" and that "the [abortion] procedure was started either immediately after induction of anaesthesia or within 2–3 minutes." *Id.* Practice in the United States may differ, particularly in more liberal administration of sedative premedication. *See* Koplik letter, *supra* note 35, at 356.

[39] The lag time differs depending on the particular analgesic or anesthetic. Intramuscular injections of pethidine require three hours to be maximally effective, whereas injection of fentanyl, alfentanil, or benzodiazepines may work more rapidly. *Id.*

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ternal exposure to pain relief. People undergoing surgical procedures of all sorts routinely expose themselves to similar minor risks, and there is no reason to expect women seeking late-term abortions to act any differently.

Physicians do not provide for direct fetal pain relief as part of late-term abortions for two interconnected reasons. First, physicians performing abortions are unlikely to view the fetus as a patient and thus are unlikely to consider fetal pain a significant problem. Second, fetal pain relief involves extra cost, most of which comes from the increased time needed for physician involvement, and some extra health risk associated with longer sedation. Physicians therefore use the minimum amount of pain relief deemed "necessary," and do not consider fetal pain when making this calculation.

There is no reason to believe that physicians presently provide women seeking late-term abortions with information about fetal pain or fetal pain relief. Physicians have little incentive to discuss the evidence that abortions inflict pain on the fetus, even though they could address fetal pain with little increased cost or health risk. Discussing fetal pain before an abortion might be uncomfortable even for a physician accustomed to having conversations about sensitive matters with patients. Because abortion has as its purpose the destruction of the fetus, and physicians naturally prefer to discuss matters that patients find reassuring,[40] the default arrangement seems to be that physicians provide no information on fetal pain or fetal pain relief.

The present default arrangement is acceptable only if women seeking late-term abortions are indifferent to the infliction of fetal pain under circumstances in which the physician could minimize that pain with little increased cost or health risk. This assumption seems dubious in light of testimony from women who have obtained late-term abortions, who reported that they made a difficult and tragic decision to end a wanted pregnancy in which they cared deeply for the baby.[41] Though it is unlikely that women who obtain late-term abortions are indifferent to fetal pain, it is also unlikely that such women will actively seek information about fetal pain given the welter of competing concerns vying for their attention. Legislation requiring physicians to offer information on fetal pain and seek informed consent to adminis-

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[40] *Cf.* Matt Stolick, *Overcoming the Tendency To Lie to Dying Patients*, 19 AM. J. OF HOSPICE & PALLIATIVE CARE 29, 33 (2002) (suggesting that deficiencies in medical education lead many doctors to ignore the dying process experienced by terminal patients, the result of which is to "threaten the patient's dignity, right to informed consent[, and] right to decide autonomously").

[41] *See, e.g.*, *Effects of Anesthesia During a Partial-Birth Abortion*, *supra* note 7, at 320–26 (statement of Coreen Costello); *id.* at 326–31 (statement of Mary-Dorothy Line). "Baby" is used here because it is the term used by both Ms. Costello and Ms. Line in their congressional testimony.

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ter fetal pain relief would correct the failure of the present arrangement.

III. THE DESIGN OF FETAL PAIN LEGISLATION

Having discussed the scientific evidence regarding fetal pain and the failure of physicians to offer targeted fetal pain relief, this Note turns to the design of legislation to decrease the infliction of pain in late-term abortions. This section discusses three possible rules: a ban on all postviability abortions, a requirement that physicians always administer fetal pain relief when performing abortions after twenty weeks gestational age, and a requirement that physicians offer information on fetal pain and also provide the option of fetal pain relief when performing abortions after twenty weeks gestational age. After evaluating how each rule would function in conjunction with the Supreme Court's health exception jurisprudence, this section concludes that an information requirement coupled with a mandate to offer the option of fetal pain relief would best accomplish the goals of state legislatures. The section ends by proposing model legislation.

If a state's only interest with regard to late-term abortions were to minimize fetal pain, one straightforward way of serving this interest would be to ban all postviability abortions. The Court in *Planned Parenthood of Southeastern Pennsylvania v. Casey*[42] reaffirmed the holding of *Roe v. Wade*[43] that "subsequent to viability, the State in promoting its interest in the potentiality of human life may, if it chooses, regulate, and even proscribe, abortion except where it is necessary, in appropriate medical judgment, for the preservation of the life or health of the mother."[44] Such a ban would not, however, fully address the state's interest in minimizing fetal pain. If pain perception begins at twenty weeks[45] and viability is placed at twenty-three to twenty-four weeks, there would be some pain-inducing abortions not covered by a postviability ban. More significantly, however, the health exception, as interpreted in *Stenberg v. Carhart*,[46] would allow for circumvention of the legislative prohibition on postviability abortions. The scope of the health exception is coextensive with the limits imposed by legislation. Thus, when the state attempts to ban abortion categorically after a certain gestational age or to ban the use of a particular procedure, it provides more situations in which a health excep-

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[42] 505 U.S. 833 (1992).

[43] 410 U.S. 113 (1973).

[44] *Casey*, 505 U.S. at 879 (plurality opinion) (quoting *Roe*, 410 U.S. at 164–65) (internal quotation marks omitted).

[45] This is the time during which thalamo-cortical connections begin to form. *See supra* pp. 2013–14.

[46] 530 U.S. 914, 937 (2000).

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tion can plausibly be invoked. In each case, the categorical restriction meets a similarly categorical exception. A law that places fewer hard limits therefore provides fewer occasions in which a health exception can defeat legislative requirements.

The availability of fetal pain relief gives the state a way to address fetal pain directly without banning late-term abortions wholesale. The state would then face a choice between mandating the administration of targeted fetal pain relief in all abortions performed after a certain time and mandating only that the pregnant woman be given information about fetal pain and fetal pain relief along with a surgical option that would include targeted fetal pain relief.

Requiring the provision of information seems less intrusive than legislatively imposing a new element of a surgical procedure. The reverse may be true, however, if one measures the impact of the law from the perspective of a woman and her doctor. Mandating fetal pain relief permits the woman and her doctor to sidestep discussion of fetal pain while simultaneously ensuring that the fetus will not suffer pain as a consequence of the perceived difficulty of having such a discussion. Because administration of fetal pain relief would be part of the abortion and all surgical procedures require informed consent, some mention of fetal pain would be necessary, but the doctor could downplay the likelihood of fetal pain and chalk up the requirement to legislative overreaching, if so inclined.

Fetal pain relief mandated, discussion averted, problem solved? No. Once again, legislators must account for the Court's health exception jurisprudence as articulated in *Stenberg*. Any post-*Stenberg* legislation that did not include a health exception would be begging for invalidation on that basis alone.[47]

How would a health exception work? A doctor might invoke the exception for at least two reasons. First, the doctor may face a truly exceptional situation in which administration of fetal anesthesia would impose abnormally high health risks on the pregnant woman. Second, he or she may believe as a general matter that administration of "extra" pain relief is risky and therefore unwarranted unless the patient specifically requests it. Allowing an exception for the first reason would let the legislature set a generally applicable rule that implements the legislature's determination of the relevant costs and benefits. Allowing an exception for the second reason would permit each doctor to set his or her own general rule based on an independent determina-

[47] In evaluating Nebraska's ban on partial-birth abortions, Justice Breyer's majority opinion stated that a statutory health exception is necessary when "a significant body of medical opinion believes a procedure may bring with it greater safety for some patients and explains the medical reasons supporting that view." *Id.*

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tion of the relevant costs and benefits.[48] Because there is nothing under current law to prevent doctors from relying on either reason when invoking a statutory health exception, doctors could rely on general objections to decide unilaterally not to administer targeted fetal pain relief. Such a state of affairs would be no improvement over the status quo.

The problem in designing abortion-related legislation lies in allowing an exception for exceptional circumstances without letting the exception swallow the rule. As Justice Kennedy pointed out in his *Stenberg* dissent, application of a health exception is physician-centered: any legislative restriction on abortion must give way if the doctor performing the abortion determines that the restriction poses an increased health risk to the woman.[49] Unless abortion legislation provides for its own circumvention by the physician on a case-by-case basis, it will run afoul of *Stenberg*.

Because doctors can invoke the health exception in situations other than truly exceptional ones, the best way for a legislature to minimize fetal pain may be to avoid designing its rule as a restriction. Instead of imposing a restriction, the legislature could require the doctor to provide information sufficient to let the woman herself make the choice whether to include fetal pain relief in the procedure. Every use of additional pain relief will have some risks as well as some countervailing benefits. By requiring the doctor to provide information and empowering the pregnant woman herself to weigh the costs and benefits of targeted fetal pain relief, state legislation can ensure that the woman,

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[48] One might argue that legislatures are not well-positioned to weigh the costs and benefits of medical procedures at all. Such an argument would have to explain why it is permissible for the legislature to require immunizations, regulate medical devices, limit access to prescription drugs, require insurers to provide coverage for at least forty-eight hours of hospital time following delivery, and act in myriad ways to determine the relevant costs and benefits of medical treatment, but not to determine as a general matter that pain inflicted on the fetus in the absence of fetal pain relief outweighs any marginal risks that such pain relief poses to the woman.

[49] *Stenberg*, 530 U.S. at 964 (Kennedy, J., dissenting) ("[T]he Court awards each physician a veto power over the State's judgment that the procedures should not be performed."). Justice Breyer's majority opinion and Justice O'Connor's concurrence each disclaimed such a rule. *Stenberg*, 530 U.S. at 938; *id.* at 948 (O'Connor, J., concurring). Justices Breyer and O'Connor note that a single physician's idiosyncratic judgment about the general safety benefits of a particular procedure is insufficient to support a health exception. The real disagreement between them and Justice Kennedy centers on the physician's invocation of a health exception in particular circumstances. Under *Stenberg*, a physician's determination that the use of a prohibited procedure for a particular patient would provide some increased safety, however marginal, allows for circumvention of the legislative prohibition. The legislature can address this problem by setting the acceptable level of risk, but the physician always retains a great amount of functionally unreviewable discretion in applying this risk standard to particular facts, thus exercising a veto power over the legislative determination.

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rather than the doctor alone, has the final say in intelligently weighing the relevant costs and benefits.[50]

Legislation that requires doctors to provide information on fetal pain and to offer fetal pain relief should include an exception that relaxes the requirements in exceptional circumstances. The legislature could model an appropriate medical emergency exception on the statutory provisions upheld by the Supreme Court in *Casey*.[51] Because the law's requirements would simply add another component to the informed consent that must be provided for any surgical procedure, there would likely be few situations in which a physician could credibly invoke a medical emergency exception.

The Fetal Pain Prevention Act (FPPA)[52] introduced in the New York Assembly in March 2001 provides model legislation for addressing the issue of fetal pain in a manner consistent with the latest scientific findings and the regnant interpretation of the requirements of the Constitution. The FPPA would apply "[i]f a physician who is to perform an abortion has reason to believe that the pregnant female is carrying a fetus of twenty or more weeks gestational age."[53] In such circumstances, the FPPA would require the physician, personally, to provide the pregnant woman with oral information on fetal pain as well as written information prepared by the State Commissioner of Health.[54]

After providing the required information, the physician must "personally request [the pregnant woman's] voluntary and knowing consent for the administration of an anesthesia or analgesic to eliminate or

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[50] Of course, the physician, as the patient's main source of information and expertise, would remain the primary influence over the patient's choice.

[51] *See* Planned Parenthood of Southeastern Pa. v. Casey, 505 U.S. 833, 879–80 (1992) (plurality opinion) (concluding that a statutory exception, triggered by a doctor's determination that following the general rule would "create serious risk of substantial and irreversible impairment of a major bodily function," did not impose an undue burden on a woman's abortion right).

[52] A. 7940, 2001–02 Reg. Sess. (N.Y. 2001). This bill was introduced on March 27, 2001, and was referred to the Committee on Health, where it has remained ever since. A substantively identical bill was introduced in the State Senate and referred to the Committee on Health. S.B. 3385, 2001–02 Reg. Sess. (N.Y. 2001). As of May 2002, there was no indication that either bill had a realistic chance even of getting out of committee. Similar bills have been introduced in Texas and California, but both have remained in committee. *See* H.B. 1244, 77th Reg. Sess. (Tex. 2001); A. 1758, 1997–98 Reg. Sess. (Cal. 1998). These bills are discussed in Collett, *supra* note 12, at 17–18.

[53] A. 7940, § 2514(1).

[54] *Id.* The written information prepared by the Commissioner must be "objective, nonjudgmental and designed to convey accurate scientific information," and must include information regarding "[t]he development of the nervous system of the fetus; [f]etal responsiveness to adverse stimuli; [and a] description of the actual steps in the abortion procedure to be administered." *Id.* § 2514(2).

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alleviate fetal pain during the course of the abortion."[55] If the pregnant woman consents:

> [The physician] shall administer an anesthesia or analgesic which in [the] physician's reasonable medical judgment is necessary to eliminate or alleviate fetal pain during the course of the abortion[, but] the physician shall not administer any medication that would to a medically significant degree decrease the possibility of sustained survival of the fetus apart from the body of the mother, with or without artificial life support, or that would cause the death of the fetus.[56]

The FPPA includes two exceptions. The first exception would apply if immediate abortion were necessary to avert the death of the pregnant woman or if "a delay would create a serious risk of a substantial and irreversible impairment of a major bodily function."[57] The second exception would apply if "[t]he administration of an anesthetic or analgesic would cause the pregnant woman's death or would create a serious risk of a substantial and irreversible impairment of a major bodily function."[58] If either exception applies "in the reasonable medical judgment of the physician who performs the abortion,"[59] the physician need not comply with the specific informed consent procedures otherwise required by the FPPA. In such a case, the physician must certify in the pregnant woman's medical records "the specific medical grounds for [the] physician's judgment."[60]

IV. CONSTITUTIONAL ANALYSIS

The FPPA is a species of informed consent law similar to the informed consent provisions upheld by the Supreme Court in *Planned Parenthood of Southeastern Pennsylvania v. Casey*. In *Casey*, the Court discarded the trimester framework of *Roe v. Wade* while reaf-

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[55] *Id.* § 2515(1). The physician must certify, on a state-provided form, that he or she personally provided the required information to the patient, *id.* § 2514(3), and personally requested the patient's consent, *id.* § 2515(2). Similarly, the patient must certify her grant or refusal of consent. *Id.* § 2515(3). The physician must include these certification forms in the patient's medical records. *Id.* § 2514(3), 2515(2)–(3).

[56] *Id.* § 2515(4). The FPPA defines as professional misconduct a physician's failure to provide the required information or request the required consent. *Id.* § 2517(1). An additional provision states that "[a]ny person who knowingly makes a false entry in a medical record as required by this section shall be guilty of a class A misdemeanor." *Id.* § 2517(3). The law provides the pregnant woman on whom an abortion is performed without the required information or consent a personal civil action against the physician for actual and punitive damages. *Id.* § 2517(2). The law also awards "reasonable attorneys' fees to a prevailing plaintiff." *Id.* Finally, the FPPA states that "[t]he female upon whom an abortion has been performed shall not be liable for any offense under this title." *Id.* § 2517(3).

[57] *Id.* § 2516(1)(a).

[58] *Id.* § 2516(1)(b).

[59] *Id.* § 2516(1).

[60] *Id.* § 2516(2).

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firming what it termed the "essential holding" of *Roe*.[61] The Court stated:

> States are free to enact laws to provide a reasonable framework for a woman to make a decision that has such profound and lasting meaning. This, too, we find consistent with *Roe*'s central premises, and indeed the inevitable consequence of our holding that the State has an interest in protecting the life of the unborn.[62]

In applying its principles to the statutory provisions at issue, the *Casey* plurality upheld the constitutionality of Pennsylvania's informed consent and waiting period provisions, which required that "at least 24 hours before performing an abortion a physician inform the woman of the nature of the procedure, the health risks of the abortion and of childbirth, and the 'probable gestational age of the unborn child.'"[63] The statute also required the physician or another qualified person to "inform the woman of the availability of printed materials published by the State describing the fetus and providing information about medical assistance for childbirth, information about child support from the father, and a list of agencies which provide adoption and other services as alternatives to abortion."[64] The informed consent and waiting period provisions did not apply in the case of a medical emergency, defined as a circumstance in which delay would lead to the pregnant woman's death or the serious impairment of a major bodily function.[65]

In light of *Casey*, analysis of the constitutionality of the FPPA is straightforward. Neither banning any procedure nor restricting the power of women to choose whether to abort, the Act lets women choose whether to obtain fetal pain relief. If the FPPA is enacted pursuant to a legitimate state interest, it is valid if it imposes no undue burden on the right to privacy.[66] Because the undue burden inquiry is

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[61] As articulated by the plurality opinion, this "essential holding" had three elements:

> First is a recognition of the right of the woman to choose to have an abortion before viability and to obtain it without undue interference from the State. . . . Second is a confirmation of the State's power to restrict abortions after fetal viability, if the law contains exceptions for pregnancies which endanger the woman's life or health. And third is the principle that the State has legitimate interests from the outset of the pregnancy in protecting the health of the woman and the life of the fetus that may become a child.

Planned Parenthood of Southeastern Pa. v. Casey, 505 U.S. 833, 846 (1992).

[62] *Id.* at 873; *see also id.* at 872 ("Though the woman has a right to choose to terminate or continue her pregnancy before viability, it does not at all follow that the State is prohibited from taking steps to ensure that this choice is thoughtful and informed.").

[63] *Id.* at 881 (describing the Pennsylvania statute, 18 PA. CONS. STAT. ANN. § 3205 (West 2000)).

[64] *Id.*

[65] *Id.* at 879–80; *see also* 18 PA. CONS. STAT. ANN. § 3203 (West 2000).

[66] As the Court said in *Casey*:

> The fact that a law which serves a *valid purpose*, one not designed to strike at the right itself, has the incidental effect of making it more difficult or more expensive to procure

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often determinative, analysis of abortion-related legislation typically addresses this issue first even though the state interest inquiry is prior as a matter of law and logic.

After *Casey*, there is no credible argument that the FPPA unduly burdens the constitutional right to privacy. Fetal pain information is just a specific form of information on fetal development that describes a consequence of the fetus's anatomical, physiological, and neurological development.[67] An opponent of the legislation might argue that providing information on fetal pain unduly burdens the woman's right to privacy by providing "upsetting" information. Apart from the paternalism inherent in this objection, this attempted distinction of *Casey* also overlooks that the FPPA requires the doctor to provide the pregnant woman with the option of mitigating fetal pain. To the extent that a woman would rather the doctor not inflict fetal pain, the FPPA empowers her with the ability to choose a procedure involving fetal pain relief. Indeed, the fact that some women seeking late-term abortions might find the prospect of fetal pain "upsetting" lends support to the legislative premise that fetal pain matters to such women.

Unlike Nebraska's ban on partial-birth abortions that was found unconstitutional in *Stenberg v. Carhart*, the FPPA has a medical emergency exception that satisfies the constitutional requirement articulated in *Casey* and reiterated in *Stenberg*.[68] The two exceptions built into the FPPA are structurally the same as the medical emergency exception in *Casey*.[69]

Given that the FPPA does not unduly burden the right to privacy, the appropriate level of scrutiny for a court to apply is deferential rational basis scrutiny, under which the FPPA is valid if passed pursuant to a legitimate state interest. The remainder of this section discusses a number of state interests that support the FPPA. This discussion begins with consideration of the state's interest in the potential human life of the fetus because this interest was found to support the in-

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> an abortion cannot be enough to invalidate it. Only where state regulation imposes an *undue burden* on a woman's ability to make this decision does the power of the state reach into the heart of the liberty protected by the Due Process Clause.

Casey, 505 U.S. at 874 (emphasis added).

[67] As a political matter, it is likely that fetal pain legislation will first be enacted as an amendment to informed consent provisions in a state that already has an informed consent provision on the books.

[68] *Cf. Stenberg*, 530 U.S. at 938 ("[W]here substantial medical authority supports the proposition that banning a particular abortion procedure could endanger women's health, *Casey* requires the state to include a health exception when the procedure is 'necessary, in appropriate medical judgment, for the preservation of the life or health of the mother.'" (quoting *Casey*, 505 U.S. at 879)).

[69] *See Casey*, 505 U.S. at 880 (discussing the application of the health exception requirement to Pennsylvania's informed consent requirements).

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formed consent provisions in *Casey*. The discussion proceeds to consider additional interests more closely related to the issue of fetal pain.

The third element of the "essential holding" of *Roe*, as described by the *Casey* plurality, is the recognition that the state has a legitimate interest in the potential human life of the fetus. One might object that this interest cannot support the FPPA because the law does not save any fetus from destruction but only minimizes fetal pain during the procedure. Justice Breyer's majority opinion[70] and Justice Ginsburg's concurring opinion[71] in *Stenberg* included an argument of this sort against Nebraska's partial-birth abortion ban, and Judge Posner made the same argument in dissenting from the Seventh Circuit's pre-*Stenberg* decision not to enjoin entirely Wisconsin's partial-birth abortion ban.[72]

Applying this objection to the FPPA would not only rest on an unduly narrow interpretation of the state's interest, but would also misconstrue the law's potential effects. First, the legitimate state interest in potential human life recognized in *Casey* supports laws other than those that categorically limit abortions, such as laws promoting informed choice.[73] Second, the FPPA advances this interest even if that interest is construed narrowly to require an actual decrease in the number of abortions. Though the information that the FPPA requires is unlikely to result in many decisions not to go through with the abortion (given the ready availability of fetal pain relief), the information may have that effect in at least some cases. By resulting in the birth of children who might not have otherwise been born, the legislation advances, in at least some cases, the state's legitimate interest in protecting potential human life. That this interest is advanced through the *choice* of the pregnant woman rather than the *command* of the state is a virtue, not a vice, of the state's approach.

Apart from the interest in protecting potential human life, the FPPA serves a number of other state interests. It is helpful in analyzing these state interests to distinguish between "derivative" and "de-

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[70] *Stenberg*, 530 U.S. at 930 ("The Nebraska law, of course, does not directly further an interest 'in the potentiality of human life' by saving the fetus in question from destruction, as it regulates only a *method* of performing abortion.").

[71] *Id.* at 951 (Ginsburg, J., concurring) ("I write separately only to stress that amidst all the emotional uproar caused by an abortion case, we should not lose sight of the character of Nebraska's 'partial birth abortion' law[, which] does not save any fetus from destruction, for it targets only 'a *method* of performing abortion.'" (quoting *Stenberg*, 530 U.S. at 930)).

[72] Hope Clinic v. Ryan, 195 F.3d 857, 878 (7th Cir. 1999) (Posner, J., dissenting) ("[T]he statutes do not forbid the destruction of any class of fetuses, but merely criminalize a *method* of abortion — they thus have *less* to recommend them than the antiabortion statutes invalidated in *Roe v. Wade*.").

[73] *See, e.g.*, *Casey*, 505 U.S. at 883 (1992) (plurality opinion) ("[W]e permit a State to further its legitimate goal of protecting the life of the unborn by enacting legislation aimed at ensuring a decision that is mature and informed.").

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tached" interests, a distinction most forcefully advanced in the abortion context by Ronald Dworkin.[74] A derivative interest is one derived from particular interests of individuals, whereas a detached interest is a general societal value that does not depend on or presuppose any particular individual interests.[75] Applying this distinction provides a useful classification of the interests that the state can advance through the FPPA. These interests include promoting the woman's right to privacy (derivative), protecting the fetus's interest in being free from unnecessary pain (derivative), maintaining the role of doctors as caregivers (detached), and promoting a more compassionate approach to human life by minimizing the needless infliction of pain on human fetuses (detached).

Proponents of the FPPA can argue that the legislation enhances the pregnant woman's exercise of her privacy right to choose abortion by ensuring that the doctor fully informs her of all consequences that she would find important. If the premise of this Note is correct, most women seeking late-term abortions would prefer to be informed whether the procedure will inflict pain on the fetus, so that the physician could minimize that pain, rather than to be kept in the dark due to paternalistic notions of emotional vulnerability. One might object that the FPPA interferes with, rather than promotes, a pregnant woman's interest in exercising her privacy right by forcing on her state-approved information regarding fetal pain. This objection derives from an individualistic conception of autonomous choice that finds its origin in political theory rather than the Constitution. Though some statements in the *Casey* plurality opinion seem at first to constitutionalize such an individualism,[76] the portions of the decision upholding Pennsylvania's informed consent and waiting period requirements recognize that state-required information may in fact enhance the pregnant woman's exercise of her privacy right.[77] In a pas-

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[74] *See* RONALD DWORKIN, LIFE'S DOMINION: AN ARGUMENT ABOUT ABORTION, EUTHANASIA, AND INDIVIDUAL FREEDOM 11 (1993).

[75] *Id.*

[76] Particularly notable in this regard is the vaunted "mystery passage" of the plurality opinion: "At the heart of liberty is the right to define one's own concept of existence, of meaning, of the universe, and of the mystery of human life. Beliefs about these matters could not define the attributes of personhood were they formed under compulsion of the State." *Casey*, 505 U.S. at 851.

[77] Indeed, any critic of the "mystery passage" would be well advised to read on. The text immediately following the "mystery passage" recognizes that abortion is not an abstract exercise of disembodied autonomy, but a real-world choice with practical consequences. The vision of *Casey* is not the vision of the "mystery passage" *alone*, but the "mystery passage" followed immediately by the statement:

> These considerations begin our analysis of the woman's interest in terminating her pregnancy but cannot end it, for this reason: though the abortion decision may originate within the zone of conscience and belief, it is more than a philosophic exercise. Abortion is a unique act. It is an act fraught with consequences for others: for the woman who must live with the implications of her decision; for the persons who perform and

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sage with obvious applicability to analysis of the FPPA, the plurality stated:

> [M]ost women considering an abortion would deem the impact on the fetus relevant, if not dispositive, to the decision. In attempting to ensure that a woman apprehend the full consequences of her decision, the State furthers the legitimate purpose of reducing the risk that a woman may elect an abortion, only to discover later, with devastating psychological consequences, that her decision was not fully informed.[78]

Thus, the FPPA does, in some way, force a "difficult conversation," but it is necessary precisely for this reason. Absent such legislation, physician discomfort in broaching a sensitive topic may block the provision of information that a pregnant woman would find important but would not otherwise receive.[79]

The FPPA clearly serves the interest of the fetus in avoiding the pain that substantial scientific evidence indicates is inflicted on fetuses in late-term abortions. The primary argument against recognizing the fetus's interest in avoiding pain as a legitimate state interest is that acknowledgment of such an interest is contrary to the Court's determination in *Roe* that the fetus is not a person for purposes of constitutional law.[80] This objection relies on the premise that the state may only protect the derivative interests of constitutional persons (a category that excludes fetuses). This premise is clearly wrong. In explaining why "complex philosophical issues about the nature of moral (as opposed to legal) rights and the identity of proper rights bearers . . . need not get in the way of progress on the issue of legal rights as such,"[81] Cass Sunstein writes:

> Speaking pragmatically, the foundation for a legal right is an enforceable claim of one kind or another. If rights are understood in this mundane and pragmatic way, there is nothing novel or unfamiliar about the notion of animal rights. Indeed, no one seriously urges that animals should lack legally enforceable claims against egregious cruelty, and animals have long had a wide range of rights against cruelty and mistreatment under state law, rights that have recently been growing in both state and national leg-

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> assist in the procedure; for the spouse, family, and society which must confront the knowledge that these procedures exist, procedures some deem nothing short of an act of violence against innocent human life; and, depending on one's beliefs, for the life or potential life that is aborted.

Id. at 852.

[78] *Id.* at 882.

[79] The Court in *Casey* rejected the argument that requiring doctors to provide information violates the First Amendment by compelling physician speech. *Id.* at 884.

[80] Roe v. Wade, 410 U.S. 113, 158 (1973) ("[T]he word 'person,' as used in the Fourteenth Amendment, does not include the unborn.").

[81] Cass Sunstein, *Standing for Animals (with Notes on Animal Rights)*, 47 UCLA L. REV. 1333, 1364 (2000).

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islatures. The capacity to suffer is, in this sense, a sufficient basis for legal rights for animals.[82]

Our legal system has manipulated the concept of personhood in a number of ways,[83] but one constant seems to be that personhood is not a prerequisite to recognition of legally enforceable interests. For example, even though pre-Civil War judges in Virginia and North Carolina "held that owners who severely and unjustifiably beat their slaves could not be indicted under the common law,"[84] most judges "read laws proscribing the killing of persons to prohibit the killing of slaves."[85] Though not full "persons" under the law and compared by some judges to animals and chattel, slaves nonetheless had a legally enforceable interest in not being murdered.[86] The comparison to slavery also indicates that it is possible to recognize a legally enforceable interest while simultaneously providing that the interest may only be asserted by a third party. Ultimately, it is perhaps too obvious to merit extended consideration that preventing persons from inflicting gratuitous pain on other sentient beings is a legitimate state purpose.[87]

The state has detached interests in protecting the role of doctors and promoting a more compassionate approach to human life. States have a legitimate interest in regulating the practice of medicine to protect the role of the physician as a caregiver. In sustaining Washington's ban on assisted suicide against a substantive due process challenge, the Court stated that "[t]he State . . . has an interest in protecting the integrity and ethics of the medical profession."[88] The physician performing a late-term abortion is unlikely to be the woman's regular physician because the relative rarity of such procedures makes it impractical for most physicians who specialize in women's health to develop expertise in performing late-term abortions.[89] Given that the fe-

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[82] *Id.* at 1363.

[83] *See generally* Note, *What We Talk About When We Talk About Persons: The Language of a Legal Fiction*, 114 HARV. L. REV. 1745 (2001) (describing the general incoherence of American approaches to the notion of legal personhood, including categories of human nonpersons (such as slaves), nonhuman persons (such as corporations), and borderline humans (such as fetuses)).

[84] *Id.* at 1749.

[85] *Id.* at 1748.

[86] Whether this interest was enforceable as a practical matter is a separate question.

[87] *Cf.* Richard A. Posner, *Animal Rights*, 110 YALE L.J. 527 (2000) (reviewing STEVEN M. WISE, RATTLING THE CAGE: TOWARD LEGAL RIGHTS FOR ANIMALS (2000)). Judge Posner offers the extension of present laws against animal cruelty as an alternative to the recognition of "animal rights." He writes:

> We should be able to agree without help from philosophers and constitutional theorists that gratuitous cruelty is bad. Condemnation is built into the word "gratuitous," and few of us are either so sadistic, or so indifferent to animal suffering, that we are unwilling to incur at least modest costs to prevent gratuitous cruelty to animals. . . .

Id. at 539–40.

[88] Washington v. Glucksberg, 521 U.S. 702, 731 (1997).

[89] Many doctors may also object to performing such procedures on moral grounds.

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tus is not the doctor's patient in any conventional sense — at least during an abortion — the doctor is unlikely to view himself or herself as having a duty to inform the pregnant woman about consequences of the procedure for the fetus (other than the obvious consequence of fetal death). The FPPA promotes the role of the doctor as caregiver by ensuring that the doctor provides the woman with information that she would deem relevant but that the doctor might not otherwise provide.[90]

Finally, and most importantly, the FPPA may serve the state's interest in promoting a more compassionate approach to human life by minimizing the needless infliction of pain on human fetuses. Despite the Court's invalidation of Nebraska's ban on partial-birth abortions in *Stenberg*, the state may still protect human dignity by minimizing brutal procedures that may coarsen sensibilities and cheapen human life. A law that minimizes fetal pain promotes the state's interest in human life in a way that "is symbolic and aspirational as well as practical."[91] This state interest is not derivative of, and does not depend on recognizing, a fetus's right to life or humane treatment. Rather, appeal to this interest reflects the idea expressed by Oxford ethics professor Jonathan Glover:

> The effects of certain kinds of acts, not on those they are done to, but on those who do them, can be of overriding importance . . . .
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> . . . .
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> . . . [T]he moral claims of late fetuses and of babies are not exhausted by any rights depending on their qualifying as persons. Perhaps they are not persons, and have less of the required self-consciousness than some nonhuman animals. But we have reasons, to do with ourselves rather than them, for not treating them as merely disposable.[92]

Offering the option of administering targeted pain relief to the fetus promotes an understanding of the late-term fetus that appropriately demands more humane treatment under the present regime of abortion jurisprudence. The ultimate effect of such legislation may be to produce a more compassionate body politic, though as a practical matter, this is far from certain. As the next section explains, the constitutive

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[90] *Cf.* Planned Parenthood of Southeastern Pa. v. Casey, 505 U.S. 833, 884 (1992) ("Whatever constitutional status the doctor-patient relation may have as a general matter, in the present context it is derivative of the woman's position."); Stenberg v. Carhart, 530 U.S. 914, 962 (2000) (Kennedy, J., dissenting) ("A State may take measures to ensure the medical profession and its members are viewed as healers, sustained by a compassionate and rigorous ethic and cognizant of the dignity and value of human life, even life which cannot survive without the assistance of others.").

[91] *Glucksberg*, 521 U.S. at 729.

[92] Jonathan Glover, *Matters of Life and Death*, N.Y. REV. BOOKS, May 30, 1985, at 20, *quoted in* MARY ANN GLENDON, ABORTION AND DIVORCE IN WESTERN LAW: AMERICAN FAILURES, EUROPEAN CHALLENGES 61 (1987).

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effects of fetal pain legislation are difficult to predict because such legislation rests on a deeply ambiguous conception of the appropriate legal status of the human fetus.

V. FETAL PAIN AND THE POLITICS OF COMPASSION

Perhaps many people would prefer not to confront the evidence that a late-term abortion inflicts pain on the fetus. Once presented with this evidence, however, people may respond in a number of ways. Some may reject it; some may manipulate it for political gain; yet others may mourn it but ultimately accept it passively. This Note contends that this evidence provides the basis for legislative action.

Many pro-lifers are likely to view the FPPA or similar legislation as a potentially dangerous compromise with an unjustified abortion jurisprudence, premised on "the sense that the pain inflicted by the abortion is of secondary importance to the intolerable taking of life."[93] Many pro-choicers are likely to view such legislation as designed to chip away at the robust abortion right recognized in *Roe* and modified in *Casey*. Both "sides" are right to fear, because addressing fetal pain does not exhaust social concerns about abortion, even though it raises some of these concerns in a vivid (but ultimately limited) manner. The fear of the pro-lifer is that recognition of fetal suffering will result in an ethic premised on the notion that abortion is permissible as long as it is as painless as possible. The fear of the pro-choicer is that legislative acknowledgment of fetal pain will eventually result in restrictions on abortion that are unconnected to such pain.

Confronting the suffering of sentient beings has produced reforms in other areas of the law. As Judge Noonan has observed, "[t]he best indication that attention to the pain of the unborn may have social consequences is afforded by the example of humanitarian activity on behalf of animals."[94] Legal protections for animals have evolved over the past few centuries in England and the United States,[95] supplanting

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[93] John T. Noonan, Jr., *The Experience of Pain by the Unborn*, HUM. LIFE REV., Fall 1981, at 7 (suggesting one explanation for the failure of those opposed to abortion to investigate the issue of fetal pain).

[94] *Id.* at 8.

[95] *See* Martha C. Nussbaum, *Animal Rights: The Need for a Theoretical Basis*, 114 HARV. L. REV. 1506 (2001) (reviewing STEVEN M. WISE, RATTLING THE CAGE: TOWARD LEGAL RIGHTS FOR ANIMALS (2000)). Professor Nussbaum describes "a tremendous upsurge in public sympathy [in the eighteenth century] for the sufferings of animals, with widespread attacks not only on cockfighting, bearbaiting, and other cruel sports, but also on the cruel treatment of domestic animals and even on hunting, fishing, and meat-eating." *Id.* at 1523. This "tremendous upsurge" was not without effect, as "[s]ignificant animal rights legislation was passed in 1822, and the Society for the Prevention of Cruelty to Animals . . . was formed in 1824." *Id.*

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a common law baseline in which animals were a species of property with very little protection against cruelty:[96]

> [Today,] mere neglect of animal welfare counts as a criminal violation, and people are under an affirmative obligation to expend resources for the care and protection of animals. In many states, a failure to feed or shelter an animal can amount to a violation of that animal's rights. The AWA [Animal Welfare Act] creates national rights to food, shelter, medical care, and even adequate ventilation. Indeed, animals have, under current law, a remarkable set of legal entitlements, including property rights of various sorts, and they enjoy these rights against their owners.[97]

Confrontation with suffering has also prompted legal changes in the administration of the death penalty. Many states have reformed their capital punishment laws to eliminate some of the more painful methods of execution.[98] As this example illustrates, "reform" can be double-edged, seemingly useful in the short term but potentially counterproductive in the long term. From the perspective of those who oppose capital punishment, changing the method of execution may prop up an unacceptable legal practice by sanitizing it and making it less distasteful.[99]

The expansion of animal cruelty legislation supports pro-choicers' fears that fetal pain legislation could expand into more restrictive abortion regulation, and the sanitization of the death penalty supports pro-lifers' fears that fetal pain legislation could legitimize a practice they find fundamentally objectionable for reasons other than physical pain to the fetus. Though it is far from clear whether fetal pain legislation ultimately would lead to the realization of the fears of pro-choicers or pro-lifers, debate over such legislation is certain to turn on each "side's" assessment of the constitutive effects of such legislation on popular conceptions of the appropriate legal status of the human fetus.

This legal status is an essentially contested concept in areas not directly related to abortion. The House of Representatives in 2001 passed the Unborn Victims of Violence Act, declaring that an unborn

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[96] Sunstein, *supra* note 81, at 1337.

[97] *Id.* at 1363 (footnote omitted).

[98] *See* Timothy V. Kaufman-Osborn, *Regulating Death: Capital Punishment and the Late Liberal State*, 111 YALE L.J. 681, 702–04 (2001) (reviewing AUSTIN SARAT, WHEN THE STATE KILLS: CAPITAL PUNISHMENT AND THE AMERICAN CONDITION (2001)).

[99] *Cf.* Note, *The Rhetoric of Difference and the Legitimacy of Capital Punishment*, 114 HARV. L. REV. 1599, 1611–13 (2001) (describing how the heightened procedural requirements for imposition of the death penalty "assuage the discomfort of those who impose it" and "may help legitimize the death penalty in the eyes of the general public"). One death row inmate in Ohio demanded that he be executed by electric chair rather than lethal injection as a protest against the death penalty. Ohio subsequently amended its death penalty law to eliminate the use of the electric chair. *See* Bill Sloat, *Ohio Killer Executed, Blasts State in Last Words*, PLAIN DEALER, Feb. 20, 2002, at A1, *available at* 2002 WL 6360044.

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child injured or killed in the commission of a federal crime is a victim of that crime.[100] Many states have enacted similar laws.[101] The Department of Health and Human Services has issued a proposed regulation that permits states to define the fetus as a child when implementing the federal Children's Health Insurance Program (CHIP) at the state level.[102] While Bush Administration officials and pro-lifers attempted to deflect attention from this definition's implications for abortion, the dismay of abortion supporters over the regulation was apparent. One told a reporter, "I just have to believe their hidden agenda is to extend personhood to a fetus."[103]

In this environment of competing understandings, the constitutive effects of fetal pain legislation may be profound. The issue of fetal pain has particular salience because of the individualized nature of pain experiences. Because pain is experienced internally as a subjective experience, legal recognition of fetal pain distinct from maternal pain implies legal recognition of the fetus as a *subject* distinct from the mother.

Awakened empathy is a powerful social force, and the legal recognition of fetal pain has consequences. Fetal pain legislation may have a significant effect on the way in which our society deals with abortion and other social problems, for "[i]n the long run, the way in which we name things and imagine them may be decisive for the way we feel and act with respect to them, and for the kind of people we ourselves become."[104] Such legislation may be desirable for precisely this reason.

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[100] Unborn Victims of Violence Act of 2001, H.R. 503, 107th Cong. (2001) (passed by the House of Representatives on April 26, 2001, and awaiting action in the Senate as of April 2002). More closely related to abortion, the House of Representatives in March 2002 passed the Born-Alive Infants Protection Act. H.R. 2175, 107th Cong. (2002) (defining the words "person," "human being," "child," and "individual" to include "every infant member of the species homo sapiens who is born alive at any stage of development").

[101] *See* JEAN REITH SCHROEDEL, IS THE FETUS A PERSON? A COMPARISON OF POLICIES ACROSS THE FIFTY STATES 126–32 (2000) (identifying, as of January 1998, twenty-three states with "statutes making it a crime for a third party (not while performing an abortion) to kill a fetus").

[102] State Children's Health Insurance Program, 67 Fed. Reg. 9936, 9937 (proposed Mar. 5, 2002) (to be codified at 42 C.F.R. pt. 457).

[103] Laura Meckler, *States May Call Fetus "Unborn Child,"* AP ONLINE, Jan. 31, 2002, 2002 WL 11686175.

[104] GLENDON, *supra* note 92, at 62. Recognizing that the law has constitutive effects on culture and urging legislators to shape the law in light of such effects should not mislead legislators into assuming that enlisting the *coercive* power of the law is invariably the best way to change the underlying culture. *See generally* M. Cathleen Kaveny, *The Limits of Ordinary Virtue: The Limits of the Criminal Law in Implementing* Evangelium Vitae, *in* CHOOSING LIFE: A DIALOGUE ON *EVANGELIUM VITAE* 132, 133 (Kevin Wm. Wildes, S.J. & Alan C. Mitchell eds., 1997) (observing that "[t]he task of a legislator . . . involves a complex and morally precarious balancing act" that requires the legislator to "distinguish between censurable acquiescence in the culture of death and clear-eyed realism about concrete possibilities for legislative advancement of a culture of life").

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PREPARED STATEMENT OF THE AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS

The American College of Obstetricians and Gynecologists (ACOG) represents 49,000 physicians and partners in women's health, who care for and treat women of all ages. As physicians dedicated to improving women's health care, ACOG opposes legislation that is not based on good science, legislates how physicians should care for their patients, and penalizes physicians for legal, medically-sound patient care.

As a result, ACOG strongly opposes HR 356, the "Unborn Child Pain Awareness Act of 2005." This legislation would require doctors to read a government-mandated script informing the patient that the fetus might feel pain, offer or provide the patient anesthesia for the fetus, or give the patient a government prepared brochure on fetal pain. It would also impose civil sanctions and medical license revocations on a physician for failure to read such a script.

FETAL PAIN

ACOG, in consultation with physicians who are experts in fetal anesthesia and fetal surgery, knows of no legitimate scientific data or information that supports the statement that a fetus experiences pain at 20 weeks gestation. We do not know when, or if, fetuses begin feeling pain since the physical structures needed to feel pain form and are put into use gradually as fetuses develop.

We know that the cerebellum attains its final configuration in the seventh month and that myelinization (or covering) of the spinal cord and the brain begins between the 20th and 40th weeks of pregnancy. These, as well as other neurological developments, including neurotransmitted hormones, would have to be in place for the fetus to perceive pain. Our knowledge is limited to animal studies that show that these hormones are developed only in the last third of gestation.

Balancing maternal and fetal risks may be different based on individual circumstances or indications for the procedure, but maternal safety must be considered when administering anesthesia to a pregnant woman. The higher dose or amount of anesthesia given to women who are undergoing fetal surgery puts the mother at greater risk. Furthermore, at this time, there is no way to measure the dosage of anesthetic agents delivered to the fetus and no way to measure the effects of these agents on the fetus.

GOVERNMENT INTERFERENCE WITH INFORMED CONSENT

HR 356 interferes with the doctrine of informed consent and deprives patients of their physicians' best judgments. Under threat of civil penalties or license revocation, this legislation would compel physicians to give women information about fetal pain that is contrary to medical knowledge.

Requiring a physician to read a government-mandated script that is not supported by scientific information violates the established doctrine of medical informed consent. Good medical practice demands that a patient and physician decide together on treatment based on the specific needs of each patient. Physicians have a legal, professional, and ethical obligation to share with their patients all relevant information about available health care options and to respect their patients' decisions. State laws, as well as established medical standards, ensure that women are provided with accurate and unbiased information about their health care options and give their informed consent for any procedure, including abortion.

ACOG believes the government should not put obstacles, including inaccurate medical information, between a woman and her legal health care options.

CIVIL PENALTIES AND LOSS OF LICENSE

ACOG strongly opposes civil and loss of license penalties, against doctors who provide legal care based on the needs of their patients. Obstetrician-gynecologists cannot offer adequate or complete care when they fear they will be penalized for making decisions in the best interest of their patients.

SUMMARY

ACOG strongly opposes HR 356, the "Unborn Child Pain Awareness Act of 2005." HR 356 requires medically inaccurate informed consent mandates, is not based on legitimate scientific information, imposes penalties for doctors providing patient care, and does not adequately consider maternal safety when requiring the administration of anesthesia to women. This legislation disregards the central tenets of medical ethics, which could lead to serious health repercussions for our patients.

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