

Forbidding Science?

Along for the Ride: the Public and Technology Development

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Introduction

- **Not addressing dual use issues**
- **Are there public concerns that should be considered during R&D?**
- **Experts vs. the public?**
- **Public concern more about how science is used than about pursuit of basic knowledge about “how nature works”**
 - **though some process concerns**

The U.S. Political Context

- **Mainstream consensus (both parties) that consumer welfare best served by promoting efficiencies that cut costs of goods and services**
- **Free trade promotes efficiency; capitalism = “engine of creative destruction”**
- **New jobs and income have to come from innovation**

The U.S. Political Context

- **Policies are pro-growth and pro-technology (tax policy, strong IP, subsidies)**
- **Jobs, jobs, jobs: Everybody wants a Silicon Valley or a Research Triangle Park in their district**
- **“The next big thing”**

For example, Ag biotech

- **Farm lobby supports (easier to grow); technology to stay ahead of lower-cost competitors**
- **New \$ for biotech seed companies**
- **Promise of new, beneficial uses**
- **Feds focus solely on safety using existing laws, to get products to market quickly and maintain U.S. lead**

For example, Ag biotech

- **Downstream food producers, retailers not consulted**
- **Consumers not consulted**
- **Foreign markets not consulted**
- **Economic risk shifted downstream**

The U.S. Political Context

- **Jobs and competitiveness can trump security (at least, pre 9/11)**

- **Strong encryption;**
- **GPS;**
- **10-meter space-based remote sensing**



The U.S. Political Context

- **Little political support for regulations or restrictions that would slow technology deployment or create disincentives for investment in U.S.**
- **Regulatory policy is focused exclusively on risk (“science-based risk assessment”)**
- **Judgments about value are left entirely to marketplace (e.g., rBST)**

Addressing Public Sci & Tech Concerns

- **Issue still characterized mostly as a problem of public ignorance or novelty**
- **Not much interest in public input; risk is a science “expert” issue**
- **What interest there is, is mostly “instrumental”: we need to do this to get buy-in**

Addressing Sci & Tech Concerns

Case in point: cloned and transgenic animals

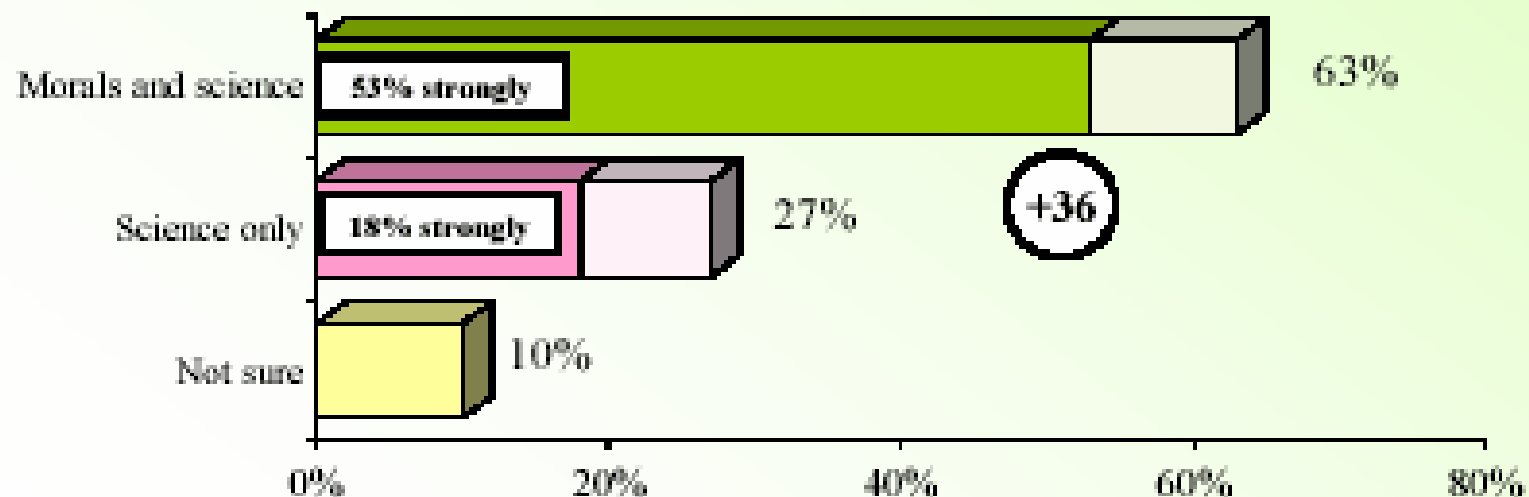
- **No big fuss about Glo-fish**
- **But GM salmon, pigs, cloned pets – the “yuck factor”**
- **Is it just the “shock of the new”?
The unimaginable becoming
imaginable?**



Americans Strongly Favor Incorporating Moral And Ethical Considerations When Regulating Animal Cloning

Which of the following statements comes closer to point of view?

- Government regulators should include ethical and moral considerations, in addition to scientific evaluation of risks and benefits, when making regulatory decisions about cloning or genetically modifying animals.
- Though ethical and moral considerations are important, government regulators should consider only scientific evaluation of risks and benefits when making regulatory decisions about cloning and genetically modifying animals.



(darker shading = stronger intensity)

The Mellman Group, Inc and Public Opinion Strategies (10/05)

Addressing Sci & Tech Concerns

- **PIFB survey: Moral and ethical concerns not well articulated, but appear strong**
- **No place in U.S. system to ask moral/ethical issues – so it just goes underground**
 - **animal cloning**
 - **Plan B?**

Addressing Sci & Tech Concerns

- **Most tech development in private hands, out of public view**
- **Few restrictions on private R&D, esp non-public (e.g., Genetic Savings & Clone)**
- **Regs don't kick in until there's a product**
- **R&D will go wherever in the world it has a hospitable climate**

**So, if God
couldn't stop the
diffusion of
forbidden
knowledge, what
makes us think
we can?**

