

Referendum Science and the New Social Contract:
A case study of California's stem cell research model

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Spring 2006

Beginning a narrative on Proposition 71 from the time of President Bush's 2001 moratorium on federal funding for most stem cell research may seem a logical starting point for academic commentary on the initiative, but in fact, a more California-centered point of departure also exists. Some of the leading biological scientists in California had much earlier on hatched the idea of a privately funded, independent research institute, an institute that would allow established researchers in the basic and applied biosciences to be freed from institutional restraints imposed by universities, while simultaneously ensuring these researchers of a continual (non-grant) funding source¹. When these same scientists coalesced with the established political forces within the state, particularly State Senator Debra Ortiz, and with the powerful patient advocacy network already in place, as embodied by Robert Klein, then the seeds for a stem cell research ballot initiative had been sown in California. Viewed in this light, the Presidential moratorium on stem cell research is perhaps best characterized as pulling the trigger on a loaded gun, setting in motion what had already been brewing in the always enterprising state of California. Coincidentally, this is also the framing most amenable to the "inevitalist" theory of scientific advance, as by this account even the federal ban on human embryonic stem cell (hESC) research could not stop the inexorable progress of scientific advance (Campbell 87). Under this theory, politicians can blow smoke all they wish, but in the end, science will continue forward into the novel arenas, and it becomes the politicians job to incorporate these new scientific advances for society's best interest, not make futile attempts at halting the basic scientific research before it even begins. While one could argue that the recent history of hESC research funding provides an excellent example of

¹ See the forthcoming oral history of William J. Rutter from the Regional Oral History Office project on the California Stem Cell Initiative

scientific inevitability in action, a more fruitful and politically-constructed viewpoint understands these developments in the context of the powerful, well-connected interest groups within each state lobbying for an end around of restrictive federal policy (see PCB report, appendix E for an overview of state developments in hESC research funding). In the case of California, the political analysis follows closely with the literature on direct democracy, focusing in particular on how certain issues are raised before the population at large by political minorities. Because supporters of stem cell research utilized direct democracy methods in founding the California Institute for Regenerative Medicine (CIRM), California also presents a unique example of ‘plebiscitary science’—basic research policy being decided on by the public at-large.

With this political context in mind, a second analytical frame from the Science and Technology Studies (STS) literature provides another context in which to study the novel features of Proposition 71. A great deal of ink has been spilled discussing the current evolution in the social contract between science and society, as the rationales for society supporting scientific research have been significantly challenged by recent developments in the research environment. Examples of this include the growing number of connections between the university and industry, the greater prominence of scientists in the promotion of further research, and an increasing public awareness {wrong word?} that even basic scientific research has the potential for harm (Geuna, et al 2003). New models of social contracts have therefore been suggested, models that try and address the changes occurring in the composition of the research climate while providing a rationale for continued government (or society) funding of scientific research. The uniqueness of Proposition 71, in that it entered into being through direct democracy, supported by both

scientists and patient advocacy groups, makes the initiative a particularly salient vehicle for the analysis of both the new social contract and theories of direct democracy. Of fundamental importance to STS theory is the question of whether direct democracy methods of research funding can even begin to be understood within the new social contract framework, or whether an entirely new theoretical lens is required. It is assumed throughout that the reader has basic familiarity with the institutions created by the passage of Proposition 71—the California Institute for Regenerative Medicine’s (CIRM) website offers background information for those needing a primer². This paper attempts to forge an understanding of Proposition 71 based on direct democracy and the new social contract, as an approach combining these disparate disciplines in concert can elucidate some preliminary implications for future applications of direct democracy to science funding and policymaking. The first section will attempt to place the California stem cell initiative within a slice of the broader direct democracy framework, while the second will do the same with the ‘new’ social contract of STS theory. The final section offers a preliminary look at how these analyses are both reinforcing and where significant disjunctions exist.

In the current literature on direct democracy, scholars have begun to conceptualize political systems with direct democratic means together with the better characterized representative democratic means, forging a singular understanding of any given political system: that of ‘referendum democracy’ (Gerber 2005; Mendelsohn and Parker 2001). Direct democracy, after all, is only “one part of the democratic puzzle”, and therefore should not be studied in isolation (Bowler and Donovan 2001). With the United States, there exists the added complication of federalism as well, with the state

² <http://www.cirm.ca.gov>

initiative affecting national policymaking and vice versa (Gerber 1998). One possible understanding of Proposition 71 revolves around these dual interactions, both of federalism and direct democracy, as the restrictive federal policies opened up political space for state initiatives like California's to occur in the first place. Furthermore, the integrated understanding provided by 'referendum democracy' emphasizes that while California's stem cell initiative certainly stemmed from a complex process involving elites and interest groups, the national context cannot be disregarded in any theory of how initiative politics function in the wake of Proposition 71, especially in California. This discussion mirrors the distinction between factors external and internal to referenda (Eisenberg 2001), as the national political context was an external backdrop that proves instrumental to understanding state-funded hESC research.

Referendum democracy literature focuses more heavily on those factors internal to, or specific to each referendum. Of primary importance among these factors is the leadership of elites, who serve an essential role in structuring the initiative process, despite the claims of direct democracy to represent citizens making the law firsthand (Mendelsohn and Parker 2001; Lupia and Johnston 2001; Bowler and Donovan 2001; Noll 2005). The *faux* populism hypothesis, which explains the role of elites in promoting certain initiatives, offers an intriguing point of departure for analysis of Proposition 71. This hypothesis proposes that most initiatives are the product of a general public sentiment on a certain issue, but that it takes 'a populist entrepreneur' of 'sufficient charisma and organizational resources' to get the measure on the ballot and obtain the subsequent rubber-stamp from the voters (Craig, et al 2001: 28). A final claim is that *faux* populist movements lack true mass, grassroots political support, as 'common

people' are not heavily involved. Perhaps no truer figure embodied the notion of a 'populist entrepreneur' than Robert Klein did during initiative campaign. Klein personally took control of the initiative soon after hearing of its existence, donated millions of dollars of his own money, and cultivated the support of scientist, industry, and patient advocacy groups while crisscrossing the state in search of campaign funds and support³. At every turn he spoke compassionately about the plight of his own son, who had Type-I diabetes, one of the diseases on the Proposition 71 laundry list. As the public face of Proposition 71, Klein became California's "stem-cell czar" upon being named head of the Independent Citizen's Oversight Committee (ICOC), in a sense marking the true end of the campaign for Klein, beyond merely the passage of the initiative⁴. Given that the qualifications required of the Chairman of the ICOC closely mirrored those of Klein himself, and that Klein was subsequently named Chairman, the 'political entrepreneur' model could be possibly extended even further, to include those entrepreneurs who not only worked to forge public support for a particular policy initiative, but who also stood to more or less directly gain political office, prestige, and power. Thus, while it is well-understood that 'elite intervention is key in determining outcomes in direct democracy' (Gerber 2005), and some research has identified how politicians have used initiatives to help secure their own election, Klein's gain of political office in an institution he crafted, through the use of the initiative, could offer troubling new dilemmas to the participatory rationales behind direct democracy.

³ Bruck, Connie. "Hollywood Science: Should a Ballot Initiative Determine the Fate of Stem-Cell Research?" *The New Yorker* 18 Oct. 2004: 62. See also Kreiger, Lisa, "Nominee for California's stem-cell research czar wrote, funded Proposition 71", *SJ Mercury News*, 14 Dec 2004: quoting Prof Hank Greeley, "More than any single person, he is responsible for the crafting and passage of Proposition 71".

⁴ Hall, Carl T. "Nominee pool grows for stem-cell czar" *SF Chronicle* 12 Dec 2004, p. A-1; The Sacramento Bee oft referred to Klein as 'stem-cell czar' in editorials, even writing him into a poem, and worse, analogizing his actions to that of the rogue operator Capt. Willard in *Apocalypse Now* (see 29 April 2005, 25 December 2005, 22 May 2005, etc.)

A further strand of referendum democracy theory studies the ability of citizens to make competent policy decisions given the binary format of the initiative, coupled with the ‘overwhelming’ ignorance of voters of political facts (Lupia and Johnston 2001). Scholars of voter competence point to the substitution of cues, or short cuts, to information gathering that voters utilize, especially those cues disseminated by the news media and through political advertisements. At least for Lupia and Johnston, voters can be considered competent if they would have made the same choice had they known all accurate information relevant to their decision (194). More research would need to be conducted as to whether voters would still support Proposition 71 if more coherently informed, but in any event, clearly certain cues and elite messages dominated the landscape during the campaign. The news media fostered “one clear narrative” (Jenkins and Mendelsohn 2001: 217) as to what the vote on the initiative really entailed; in addition, balanced coverage is theoretically speaking:

‘particularly difficult when the campaign pits a large centrist coalition of established elites in opposition to a mixed bag alliance of those on the left and right’.

This type of centrist political configuration is precisely what developed in California around Proposition 71, with the median voter approving of further scientific research, with groups on the right of the political spectrum opposed to the proposition largely due to religious considerations, and groups on the left in opposition because of unresolved questions of governance, ethics, and women’s rights, to paraphrase coarsely⁵.

Furthermore, the media generally recycles old themes in presenting the debate on new issues, and research has demonstrated this occurred nationally with hESC research questions (Nisbet 2003). Thus, the grounding of the discussion on hESC research in the

⁵ See for example, Winickoff, David. “Prop. 71 a risky experiment in squandering public monies”. *SF Chron* 17 Oct 2004, p E-3.

same vein as the abortion debate severely limited the opportunities for a normative discourse to occur on complex issues facing society (Annas and Elias 2004)⁶. Therefore, even though voters may have acted ‘competently’ according to the Lupia and Johnston conception, the simplicity offered by initiatives may not have offset the costs of misinformed voter cues, referring in particular to the ‘cures’ framing in the text of the proposition itself⁷.

Leaving a great many stones still to be unturned by future studies of direct democracy and the impacts of Proposition 71, a brief exploration of science and technology studies (STS) literature regarding the ‘new’ social contract remains to be explored. While some scholars debate whether the new social contract is truly new, or merely a rehashing of old models (Pavitt 2003; Martin 2003), the focus here is on how California’s hESC research initiative fits (or does not fit) within a new social contract model of science policymaking. Michael Gibbons (1999: C82) promotes one such understanding that has gained prominence in the literature, arguing that ‘contextualized knowledge’ is the result of the increasing complexity and diversity of modern societies, and these societies ability to ‘speak back’ to science. This switch to contextualized or ‘socially robust’ knowledge has entailed a move towards objective-drive research programs, scientists needing to enter the public sphere to produce acceptable science, and knowledge production to be transparent and participatory to be valid (Llerena and Meyer-Krahmer 2003). Other scholars have noted that scientific legitimacy now depends on the

⁶ It is worth noting that George Annas, while very critical of the President’s approach, nevertheless opposed Proposition 71, along with many other academics (see <http://www.allianceagainstprop71.org/people.html>)

⁷ Proposition 71, the “California Stem Cell Research and *Cures* Initiative”; Section 2: stem cells for “the development of life-saving regenerative medical treatments and *cures*”; “the *cure* and treatment of diseases”; “therapy...towards prevention and *cures*”, etc. [emphasis added]

perception that the scientific process has not been captured by special interests (Geuna, et al 2003: 4). Most fundamentally, observers in the science and society community have identified an increasing distribution of knowledge production, such that science and society must interact in a growing number of ways to create ‘good’ science.

Even a very cursory glance at California’s stem cell initiative provides ample evidence of the new social contract in action. Here is science policy unbounded from ‘bureaucratic rationality’ entirely (Gibbons 1999: C84), policy shaped within the agora, wholly separated from expert scientific debates on the merits of stem cell research. In this conception, Proposition 71 involved those concerned members of society ‘speaking back’ to the scientific community, utilizing the bidirectional communicative pathways society has at its disposal in the new social contract model. The initiative represents the quintessential example of science removed from “institutional locations in government” and into the agora, with society dictating that the “potential for achieving significant... clinical results”, should govern science funding decisions made by the ICOC⁸. Furthermore, since this is science policy by initiative rather than representative means, stem cell research has obtained the direct blessing from the people of California themselves, not an elite group of representatives. One conception of the initiative method of science policy, therefore, demonstrates that it provides for the near complete entry of science policymaking into the agora.

Other predictions and characteristics of the new social contract, however, are not readily amenable to the California case study under analysis herein. This disconnect between social contract and Proposition 71 is evident in a caveat to the above analysis;

⁸ Proposition 71, Section 5, “California Stem Cell Research and Cures Bond Act”, Article 1, 125290.60, subsection (c), (1), part (B)

namely, that while the decision to fund stem cell research in the grandest sense was made by society, the crucial policy and funding decisions on more specific research aspects are largely shielded in the new government agency, the ICOC (Noll 2005). In fact, numerous groups have called for greater transparency in CIRM and ICOC meetings, along the lines of the state's open meeting law requirements⁹. This conception of Proposition 71 views the initiative not as pushing science policy into the agora, but merely creating another institution largely sequestered from public discourse, along the lines of the NIH, and perhaps even more shielded than the NIH. Additionally, there does not exist a ready-made apparatus in the ICOC or CIRM for addressing potential implications of hESC research, nor were the implications of the research properly addressed in the debate before the adoption of Proposition 71, due to the limited issue scope of initiative debate analyzed above. Finally, a key aspect of the new social contract is that there will be explicit social accountability on the part of scientists for any public monies they receive (Martin 2003: 13). Proposition 71 offered a model of social accountability based on the Scientific and Medical Research Funding Working Group of the CIRM holding scientists to task by conducting "oversight reviews of grantees"¹⁰. While this model works to a degree in ensuring scientists are complying with the social goals embodied in the proposition, the model lacks a true social element, a voice of the people beyond the narrow expert composition of the working group¹¹. Knowledge produced in this way, therefore, without the *continued* involvement of society in its production, is perhaps only marginally 'socially robust knowledge' as detailed by the Gibbons' social contract. And

⁹ See CGS Report and <http://genetics-and-society.org/policies/california/halpern20041214ag.html>

¹⁰ Proposition 71, Section 5, "California Stem Cell Research and Cures Bond Act", Article 1, 125290.60, subsection (b), parts (5,6).

¹¹ See Noll, Roger (2005) and the text of Proposition 71 (125290.60) for a detailed description of the composition of the Scientific and Medical Research Funding Working Group

in tune with this lack of social robustness, Proposition 71 science policymaking clearly leaves unaddressed more fundamental concerns regarding the manipulation of life's basic processes, raising the specter of creating a dystopia of the type envisioned by geneticist Lee Silver¹².

On the one hand, science policymaking by initiative clearly adopts elements of the new social contract, with society directly involved in determining which avenues have the most potential to solve society's health goals. Proposition 71 is the quintessential "objective-driven research program," to borrow from Gibbons again, science produced at the behest of and directed by society. In the social contract theoretical lens, therefore, perhaps at least the initiative process—before the problems of downstream implementation discussed above come into play—represents a new model social contract in action, using society's input to create socially robust science. At least in the formation of basic research policy then, the Proposition 71 model offers a novel and worthy method to follow for increased public participation in decision-making, a positive goal as far as most STS scholars are concerned (Evans and Plows 2005). And in this vein, beleaguered 'stem-cell czar' Robert Klein has been quick to adopt the classic rhetoric of direct democracy, that of the *people* of California choosing overwhelmingly to support stem cell research, despite the rather high costs to an indebted state¹³.

As demonstrated previously, however, recent scholarship on referendum democracy portrays the initiative process as anything but the will of the people put into direct practice. Instead, initiatives are elite-driven machinations characterized by a

¹² See Lee Silver, *Remaking Eden* (1998). Silver would clearly disagree with characterizing his vision as dystopian, but some of the prospects he raises are most frightening to a casual observer

¹³ See for example Klein's statement issued as Chair of the ICOC upon the dismissal of the lawsuit against the CIRM: <http://www.cirm.ca.gov/pressreleases/2006/04/04-21-06.asp>

political entrepreneur of sufficient charisma to win over the largely apathetic and ill-informed mass of voters. In the Proposition 71 campaign in particular, both types of interest groups identified by Gerber as operating in California initiatives were active, namely economic and citizens groups, but more unusually, these groups were allied on the same side (Gerber 1998). This was strikingly evident in the tremendous disparity in campaign funds between the yea and nay sides of Proposition 71, when in most initiatives it is more often the case that the economic interest groups are fighting the citizen ones. With this type of disparity in funding, it is no small wonder that the debate becomes framed around certain classic cleavages chosen for maximum effect by the better funded side. And with the voter cues that dominate the electorate's decision-making process in initiatives, unlike the more considered deliberation of legislatures, a question as complex and abstract as stem cell research entering the agora through the initiative may be 'social' but hardly 'robust'. This is to say that the bidirectional communicative channels envisioned by Gibbons cannot truly function in both directions in the initiative process, as the voter cues gloss over difficult substantive issues raised by stem cell research, instead framing the issue for voters as the elites and the media so choose. The channel of communication in this regard appears unidirectional, with a few privileged elites in society choosing stem cell research as a major focal point, and convincing the people of California of their viewpoint. The point of this rehashing is that the characterization of Proposition 71 as emanating from the will of the people remains unconvincing; consequently, science by initiative may not represent a valid model for the production of socially robust science in line with the new social contract.

The science by initiative process, at least in regards to Proposition 71, presents more unanswered questions than new democratic solutions to the formation of socially-robust, fully contextualized science. How democratic is the initiative process, especially when used to make major science funding decisions? What role do scientists have in framing the debate for the lay citizen, or the non-scientist experts (like a Robert Klein)? Does citizen participation actually contribute to a de-legitimization of science, as stem cell research in California now appears hopelessly intertwined with special interests? In attempting to bridge the gap to the production of socially robust knowledge, current STS theory portends that a deliberative, jury-like process is the only proper means to engage the public, not ‘mass exercises’ like Proposition 71 (Evans and Plows 2004: 16). While in theory a citizen’s assembly model could provide for the deliberation and weighing of complex issues precluded by the initiative process utilized for California hESC research, implementing a novel political structure is a quite a daunting task. Indeed, such a proposal is currently being entertained by two California assemblymen, but has not yet generated a great deal of interest¹⁴. In focusing on referendum democracy in conjunction with STS research, therefore, one can begin to understand how science policy can be formulated in the most socially robust way in California, given the constraints created by existing political structures. This contextualization of STS theory, placing concepts like citizen’s participation within a more robust political understanding, offers an important avenue for incorporating science and society research into the political process of science policy formation.

¹⁴ http://www.leginfo.ca.gov/pub/bill/asm/ab_0001-0050/aca_28_bill_20060125_introduced.html and also Lynda Gledhill, “Lawmakers promote ‘citizens assembly’ for California”, SF Chron., 27 Jan 2006, p B-3.

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