# Note

#### Robert was the 2N in this debate.

# 1NC

Fallibilism

### Fallibilism

#### Scientifically informed rational public debate is dying due to overwhelming numbers of perspectives – the 1ac’s policy analysis breeds overconfidence through manipulation, error, and bias – which creates anti-intellectualism – the alternative revamps critical policy analysis and spurs more accurate comparative evaluation of multiple sources of evidence and belief – that revitalizes effective political practice

---non-uniques all limits predictability fairness claims

---rob methodology checks relativism

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1 Still speaking truth to power?¶ According to Lasswell (1971), policy science is about the production and application of knowledge of and in policy. Policymakers who desire to successfully tackle problems on the political agenda, should be able to mobilize the best available knowledge. This requires high-quality knowledge in policy. Policymakers and, in a democracy, citizens, also need to know how policy processes really evolve. This demands precise knowledge of policy. There is an obvious link between the two: the more and better knowledge of policy, the easier it is to mobilize knowledge in policy. Lasswell expresses this interdependence by defining the policy scientist’s operational task as eliciting the maximum rational judgment of all those involved in policymaking.¶ For the applied policy scientist or policy analyst this implies the development of two skills. First, for the sake of mobilizing the best available knowledge in policy, s/he should be able to mediate between different scientific disciplines. Second, for the sake of optimizing the interdependence between science in and of policy, s/he should be able to mediate between science and politics. Hence Dunn’s (1994:84) formal definition of policy analysis as an applied social science discipline that uses multiple research methods in a context of argumentation, public debate (and political struggle, rh) in order to create, critically evaluate, and communicate policy-relevant knowledge. Historically, the differentiation and successful institutionalization of policy science can be interpreted as the scientization of the functions of knowledge organization, storage, dissemination and application in the knowledge system (Dunn & Holzner, 1988; Van de Graaf & Hoppe, 1989:29). Moreover, this scientization of hitherto ‘un-scientized’ functions, by expressly including science of policy, aimed to gear them to the political system. In that sense, Lasswell and Lerner’s (1951) call for policy sciences anticipated, and probably helped bring about the scientization of politics.¶ Peter Weingart (this issue) claims that the development of the science-policy nexus can be analyzed as a dialectical process of the scientization of politics/policy and the politicization of science. Science Technology and Society (STS) studies can claim particular credit for showing the latter tendency (Cozzens & Woodhouse, 1995:551). Applying critical sociology, symbolic interactionism and ethnomethodology to the innermost workings of the laboratories, STS-scholars have shown that the idealist image of science as producer of privileged, authoritative knowledge claims, supported by an ascetic practice of Mertonian norms for proper scientific conduct (commonality or communism, universalism, disinterestedness, organized skepticism - CUDO’s) is just the outside, legitimizing veneer of scientific practices and successes. Using interpretive frames from Marxist science studies, conflict theory, interest theory, and social constructivism, a much more realistic perspective on science has been developed. Instead of Mertonian CUDO-norms, contemporary scientists de facto behave as if science were proprietary, local, authoritarian, commissioned, and expert (Ziman, 1990 - PLACE). From Olympian heights of abstraction, curiosity-driven speculation, innovative but stringent experiments, and Humboldtian institutional autonomy, small-s science came down to earth as a social movement (Yearley, 1988:44ff) driven by local and practical, sometimes openly political interests, entrepreneurial, fiercely competitive, speculative, with an ‘anything goes’ methodology, and selling itself to government and big business in the race for financial resources. Thus, the politics of science extended into the political domain. But it would be wrong to attribute this just to science’s institutional self interest. To the extent scientists were successful in producing authoritative cosmopolitan knowledge claims, and upholding them in their translation into successful large technological projects, they were invited by politicians and administrators as useful advisers. Thereby politics paradoxically contributed to its own scientization. At first, till the early seventies, it looked like the science-politics nexus would be just mutually beneficial. The institutional ‘convenant’ between the two spheres, aptly named "Science, the Endless Frontier" meant a high degree of institutional autonomy, lots of resources, and privileged access to political decisionmaking through advisory positions for science. Politics, impressed by and grateful for science’s contribution to the war effort and to large infrastructural projects, rested content in expecting more of the same high pay-offs. As these promises turned out empty or merely disappointing, sciences’ cognitive authority waned, and politics gradually revised the convenant by tightening its conditions for financial support and scientific autonomy. The new inter-institutional contract has been relabeled "Strategic Science". On the one hand, politics forces criteria of relevance on scientists, which clearly indicates the politicization of science. On the other hand, "(s)cientists have internalized the pressure for relevance, but at the same time have captured it for their own purposes by claiming a division of labour. Typical stories emphasize strategic research as the hero at the core of one or more ‘innovation chains’ where the switch from open-ended research to implementation would occur" (Rip,1997:631). This, of course, points to the continued scientization of politics. ¶ Even though numerous studies of political controversies showed that science-advisors behave pretty much like any other self-interested actor (Nelkin, 1995), science somehow managed to maintain its functional cognitive authority for politics. This may be due to its changing shape, which has been characterized as the diffusion of the authoritative allocation of values by the state, or the emergence of a postparliamentary and postnational network democracy (Andersen & Burns, 1996: 227-251). National political developments are backgrounded by a pulp of ideas about uncontollable, but apparently inevitable international developments; and, in Europe, national state authority and power in public policymaking is leaking away to a new political and administrative élite, situated in the institutional ensemble of the European Union. National representation is in the hands of political parties who no longer control ideological debate but remain intact as venues to national governmental power. The authority and policymaking power of national governments is also leaking away towards increasingly powerful policy subsystems or policy issue networks, dominated by functional representation by interest groups and functional experts. ¶ In this situation, public debate has become even more fragile than it has been before. It has become diluted by the predominance of purely pragmatic, managerial and administrative argument, and underarticulated due to an explosion of numerous new political schemata that crowd out the more conventional ideologies. To wit, the new schemata do feed upon the conventional ideologies; but in larger part they consist of a random and unarticulated ‘mish-mash’ of attitudes and images derived from ethnic, local-cultural, professional, religious, social movement, and personal political experiences. On the one hand, the marketplace of political ideas and arguments is thriving; on the other, politicians and citizens are at a loss in judging its nature and quality. Neither political parties, nor public officials, nor interest groups, nor social movements and citizen groups, nor even the public media show any inclination, let alone competency, in ordering this inchoate field. In such conditions, scientific debate provides a much needed minimal amount of order and articulation of concepts, arguments, and ideas. Although frequently more in rhetoric than substance, reference to scientific ‘validation’ does provide politicians, public officials, and citizens alike with some sort of compass in an ideological universe in disarray. ¶ For policy analysis to have any political impact under such conditions, it should be able to somehow continue ‘speaking truth’ to political élites who are ideologically uprooted, but cling to power; to the élites of administrators, managers, professionals and experts who vie for power in the jungle of organizations populating the functional policy domains of postparliamentary democracy; and to a broader audience of an ideologically disoriented and politically disenchanted citizenry. But what does it mean to ‘speak truth to power’ in contemporary society and politics? To answer this question, first, I turn to the megatrends in epistemological debate in the second half of the twentieth century. On that basis, second, I will try to delineate its implcations for the actual and future development of policy analysis.¶ 2 Epistemology: from instrumental to fallibilist-pragmatist rationality ¶ Once upon a time social, political, managerial and administrative élites genuinely believed in scientific rationality as a key to solving collective (and personal) problems. Like scientists themselves, they were inheritors of the Enlightenment, who pictured unfettered growth of scientific knowledge as the driving force of social progess and individual ‘pursuit of happiness’. But after two World Wars, the Shoah, the nuclear race, the ecological crisis, and the fall of ‘scientific’ communism, belief in scientific rationality is decaying. In all cases mentioned, science and scientists are, to a greater or lesser extent, accessory to human suffering and ecological degradation. For religious fundamentalists and modern neo-tribalists this suffices to reject science in a ‘rage against reason’. But even postmodernists reject claims to ground political and social ideas in scientific, rational, logical, and consistent argument as potentially exclusive, imposing, suppresive, technocratic, and ultimately undemocratic. Instead, they celebrate otherness, incompatibilities and ruptures between life styles, cultures, discourses, pluralism, the decentered ego, and the uniqueness, contingency, and fragmentation of all social phenomena. Richard Bernstein (1991) has aptly characterized this new intellectual force-field as the polarity of a ‘Both/And’ situation: the modernist idea of the Enlightenment as ‘Unfinished Project’ and the post-modernist idea of the Enlightenment as ‘Historical Error’ are like opposites that can never be reconciled, yet are inextricably intertwined in that they mutually elicit and illuminate each other. Therefore, it is unnecesary to push matters to an extreme. I would rather cast the modernism-postmodernism divide as different accents within a markedly revised concept of scientific rationality.¶ First, the conviction that empirical-analytic scientific procedure alone may lay claim to scientific rationality has become untenable. In this (neo)positivist conception, science is based on strictly neutral, objective, carefully controlled sense observation of physical and social facts. Long observation is supposed to uncover regularities and patterns, which, crafted into abtract hypotheses, are amenable to further rigorous testing. Hypotheses surviving these further tests, may be used in the formulation of deductive systems of lawlike propositions, in which they enter as the general premises in the covering-law model of truly scientific explanation and prediction. Habermas (1971) has shown that this idea corresponds to just one knowledge interest constitutive of science, i.e. the domain of labor, work, and human control over a physical or social environment. But humans know more action domains, and therefore knowledge interests. Interaction and mutual understanding of action motives and meanings is a second knowledge interest. It lends the interpretive and hermeneutic sciences their legitimate claim to scientific rationality. Where meaningful interactions are suffocated by unconscious collective images or pre-understandings which deserve articulation, reflection, and critique, there is a legitimate task for critical science. Empirical analysis of data, skillful interpretation of socially constructed meanings, and social critique are equally important, vital elements of an enlarged concept of scientific rationality. ¶ Second, it is now near universally acknowledged by scientists that scientific knowledge is fallible. The Cartesian ‘Either/Or’ position has been left. Who likes to be considered ‘scientifically rational’ can no longer appeal to rocklike cognitive certainties or axioms (be they God, the Cogito, or sense observation). Modern rationality rests on acknowledging that "although we must begin any inquiry with prejudgments and can never call everything into question at once, nevertheless there is no belief or thesis - no matter how fundamental - that is not open to further interpretation and criticism" (Bernstein, 1991: 327). Fallibilism implies the expectation of being proven wrong, and therefore the willingness to revise one’s insights. Rationality as openness to learning further presupposes the embeddedness of the scientist in a durable social context of dialogue and action. An action context, because only there the pragmatic alternation between thought and action exists which brings error to light. A context of critical dialogue, because this catalyzes the learning process. It is not accidental, then, that Habermas, defender of the idea of the Enlightenment par excellence, has strongly argued the position that cognitive-analytic rationality is unthinkable absent a rationality oriented towards mutual understanding

; a rationality which, thus, needs to be social, interactive, and dialogical. ¶ Trying to save science from overcynicism, and attempting to preserve its functional authority to politics/policy, some practice-oriented epistemologists, building on the above mentioned new constellation, have moved beyond the futile quest for clear a priori demarcation criteria to distinguish science from non-science. Instead, they try to delineate rules for ‘good’ scientific practice in the context of boundary work (Gieryn, 1995; Jasanoff, 1990) at the science-politics nexus. Recognizing the patent inadequacy of normal applied science and professional consultancy in political controversies under high uncertainty and high decision stakes over issues which show emergent complexity, epistemologists Funtowicz and Ravetz (1993) have proposed new rules for post-normal science. These rules apply when (based on Van der Sluys, 1997:21):¶ •the research group is under external pressure due to the urgency, high stakes and disputed values in the decision to be taken;¶ •established boundaries between the politics/policy and science arenas become subject to continuous renegotiation (boundary work);¶ •research is issue driven; there is not one problem, but a tangled web of related problems;¶ •a multitude of legitimate scientific and ethical perspectives on the issue web exists; conflicting certainties (appeals to so far fruitful paradigmatic canons, rules, standards, concepts) co-exist;¶ •research confronts many large, and partly irreducible uncertainties; scientists are confronted with incomplete control and unpredictability of the analysed system.¶ Under such conditions, Funtowicz & Ravetz recommend application of a fine-grained system of types of uncertainty to painstakingly sift out the reducible from the irreducible uncertainties in order to set feasible research goals and priorities. Another recommendation is to strengthen the quality control of scientific arguments through systems of extended peer review. In fact, following these proposals would mean to systematize intra-boundary work between scientific disciplines and groups (internally extended peer review) and extra-boundary work between scientists, policymakers, and, sometimes, non-expert citizens (externally extended peer review).¶ In the work Funtowicz & Ravetz we see the implications of the paradox between the scientization of politics and the politicization of science at its highest level of reflexivity. What use is it to policy science and policy analysis?¶ 3 Policy analysis: from analycentrism to the argumentative turn¶ 3.1 Democratic aspirations in beginning policy science¶ The beginnings of policy science are usually traced back to Harold Lasswell’s intellectual underpinning of the endeavor to systematically and methodically gear the applied social sciences to the needs of long term public policymaking (Lasswell & Lerner, 1951; Lasswell, 1971). In Lasswell’s designs the relationship between policy science and the practice of politics and administration was to be democratic and pragmatist. Policy science was not a technocratic strategy in order to substitute politics with enlightened administration; nor was it cast in the role of a social technology, always at the service of politicians and administrators. For Lasswell policy science was a vital element in a political strategy to maintain democracy and human dignity in a post-World War II world. He follows in the footsteps of his pragmatist teachers, Dewey and Merriam. In the pragmatist view politics is modeled after peer review in science: it is a dialogue between expert opinion and the opinions of a larger public, in a community united by the quest for answers to shared problems. Politics is seen as probing and honest debate, and not as conflict management wich succeeds by cleverly exploiting the ignorance and incomplete knowledge of citizens. In a sense, political and policy science’s goal is not to replace ‘ordinary’ political prudence and common sense with cognitively superior scientific knowledge, but to reinvigorate and systematize them (Van de Graaf & Hoppe, 1989:61-63; Torgerson, 1995: 234, 238-239). ¶ Lasswell’s position is remarkable. He had read Freud and Marx, and had been exposed to war propaganda enough to be sensitive to the realities of ideological manipulation and the pathological sides of politics. He had even written books about it (Lasswell, 1927, 1930). He was also keenly aware of the impossibility to re-embed political wisdom and prudence in the existing ‘communities’ of post-war America. Yet, Lasswell opted for a policy science in the service of democracy, and rational, active citizenship. Unlike famous contemporaries like Lippmann, Schumpeter, and Dror, who, convinced of the irremediable irrationality and lack of common sense of ordinary people, chose the more ‘realistic’ strategy of developing an applied social science for an enlightened political and administrative élite..¶ 1.Technocratic aspirations and instrumental rationality¶ Reality usually disappoints high aspirations. But it is ironic that policy science’s breakthrough was intimately connected to a half-hearted post-behavioral turn in political science. Political scientists’ call to recapture relevance in the face of exaggerated methodological rigor, was translated into curriculum and research program innovations focusing on the study of the content, processes, and impacts of public policy. But its purpose remained technocratic: replacing politicians’ and citizens’ ‘ordinary and local knowledge’ of policy and policymaking with a new, scientifically validated type of applied, general knowledge (Torgerson, 1995: 229-230). Better knowledge of causation, and know-how about the application of scientific logic in decisionmaking were the dominant claims on which the schools of public policy were erected in one after another American university, and, later, in many Eurpean countries. Testimony to the dialectics between the scientization of politics and the politicization of science, the successful institutionalization of policy science in American academia was also due to favorable labor market prospects fueled by a rising demand for policy analysis in the Kennedy and Johnson administrations (DeLeon, 1989). In Europe similar influences were at work, especially in countries with social-democratic governments (Wagner, 1991). ¶ From an epistemological point of view, in beginning policy analysis three cross-cutting and nonexclusive currents can be discerned: analycentrism, neo-positivism, and critical rationalism (Dryzek, 1993: 217-222). Analycentric policy analysis claims cognitive superiority over practice on the basis of the scientific logic and consistency built into analytic techniques like cost-effectiveness analysis, cost-benefit analysis, statistical decision theory, and planning-programming-budgeting. The analycentric policy analyst relies on algorithms, filled with data and insights from secondary sources, either scientific or practical. His ‘value-added’ is merely to see to it that actual decisionmaking follows rigorous scientific canons of procedural rationality (Behn & Vaupel, 1982). Analycentric policy analysis has been effectively criticized for its lack of political realism, and, in spite of its alleged procedural neutrality, its introduction of politically biased assumptions in the guise of ‘technicalities’ (Tribe, 1972; Self, 1975; Wildavsky, 1979; Fischer, 1980).¶ Neo-positivist policy analysis grounds its claim to cognitive superiority in its knowledge of causal links. The attractiveness of a neo-positivist concept of science is that knowledge of scientific laws, in technical-instrumental fashion, may be applied to the explanation of the emergence of policy problems and the prediction of impacts of certain policy interventions. After all, if a policy is a plan for achieving particular objectives with the help of certain means, certified causal knowledge is indispensible. For objectives are consequences preferred by policymakers; and means are their chosen and manipulated causes. Although the grounding of policy analysis in causal knowledge lingers on, neo-positivist policy analysis has whithered away. The above mentioned Habermasean criticism certainly played a role here. But applied to policy analysis, neo-positivism leads to obvious self contradictions. If human behavior generally is driven by laws governing the behavior of ordinary people, why grant immunity of such laws to politicians and policymakers (Bobrow & Dryzek, 1987:132)? Also, neo-positivists overlook that causal knowledge, through ~~men’s~~ capacity for learning, may ‘self destruct’ the causal laws on which a policy is based. ¶ Critical-rationalist policy analysis shares with neo-positivism its claim to superior causal knowledge. However, it strongly differs in on how to acquire it in the real world. In this respect, critical-rational policy analysis means an enormous step towards a fallibilist and learning concept of rationality. Building on Poppers falsificationism and his political philosophy of piecemeal social engineering (Popper, 1945), Campbell & Stanley (1963) have developed critical-rational policy analysis into a sophisticated methodology of (quasi-)experimental impact evaluation. In their view, knowledge acquisition and progress is an evolutionary process of learning from trial and error in successive efforts to compare hypotheses to experimentally generated impacts. This is true for both ordinary and scientific knowledge. Science is the more efficient learning strategy due to stricter requirements for the conditions of learning and the interpretation of results. Applied to policymaking, a policy’s content is seen as hypothesis, and implementation is a social experiment. Lindblom and Braybrooke (1963) have observed such processes of serial policy adjustment in practice. But, unlike routine practice, in critical-rational policy analysis the controlled nature of the experiment is of prime importance. This means that policy analysts are responsible for keeping objectives and conditions for implementation stable during the process. Afterwards one may compare the impact of an intervention on the properties of an experimental group to those of a similarly composed control group. Any differences found may then be attributed to the policy intervention. Repeated experiments will gradually lead to better knowledge due to error elimination through criticism of the policy experiments. Ideally, true to the ideals of an open society, not just the experimenting and evaluating policy analysts, but also those subjected to the experiment can offer their views and criticisms.¶ Critical-rational policy analysis has many strengths. By conceiving policy as hypothesis and implementation as experiment, it escapes from the neo-positivist illusion that delay of action may improve knowledge. The analogy between policymaking and experimenting better fits a political reality of permanent time pressure and action imperatives. In addition, the doctrine of an open and experimenting society returns to pragmatist notions of the polity as a community of problem-solvers. In principle, therefore, critical-rational policy analysis escapes the technocratic tendencies inherent to analycentric and neo-positvist approaches.¶ But there there are several catches to critical-rationalist policy analysis. Some of the criticism focuses on the incremental or piecemeal nature of policy experiments and the slow progress of knowledge in implementing the critical-rational program. It is argued that this does not fit a world of rapid change in which some policy experiments depend for their success on nonincremental increases in resources, and on enthusiasm rather than critique. Another type of criticism addresses the gap between the doctrine of the open, experimenting society and the practice of quasi-experimental impact evaluation. Stringent top-down implementation in different sites is a prerequisite for controlled social experiments. In practice, this justifies and leads to a ‘cozy relationship’ between reform-minded politicians, administrators, and the scientific policy evaluators, who jointly treat citizens like objects not entitled to any criticism during or after the experiment (Dryzek, 1993:220). ¶ The most lethal criticism, however, concerns the analogy to scientific experiment underlying Popper’s and Campbell’s views. Especially Dunn (1993) has convincingly shown that the analogy runs into crippling objections if applied to social systems and policy problems. Even if reform-minded policymakers and evaluators go to great lengths in arranging the experiments in such a way that results that run counter to their expectations and preferences may occur, the social dynamics of human symbol internalization and externalization (Berger & Luckman, 1967) or structuration (Giddens, 1979) imply that¶ "…experimental (design and, R.H.) outcomes are unavoidably mediated by diverse standards of appraisal which are unevenly distributed among stakeholders in policy reforms. … Social theories, unlike physical ones, are difficult to falsify with experimental data because the interpretation of such data is mediated by the assumptions, frames of reference, and ideologies of social scientists and other stakeholders in reform" (Dunn, 1993: 259-260).¶ This poses no insurmountable problems in cases of well-structured, rather static, and nearly decomposable policy issues. But such issues decrease in frequency (Bobrow & Dryzek, 1989:148) and urgency (Hoppe, 1989) in contemporary politics. Therefore, it may be concluded, as a fallibilist and error-eliminating method, critical-rationalism is only fit for avoiding first-order errors concerning the selection of the better of two or more causal hypotheses. It is of little significance and help in avoiding second-order errors of picking the more adequate of two or more problem definitions. Althogh some critical-rationalists have embraced methodological multiplism as a remedy (Dunn, 1994: 8-10), on balance, critical-rationalism relies on "qualitative, common-sense knowing of wholes and patterns…" (Campbell, 1974: 3) when it comes to selection of problem definition and theoretical frames. Campbell has conceded that, where the results of a policy experiment frequently remain open to conflicting and ambiguous interpretation, "an experiment is of itself no more than an argument" (Campbell, 1982: 330-331). Therefore, I conclude that critical-rational policy analysis is on the verge an argumentative turn (see last section).¶ 1.The postpositvist turn in policy analysis¶ Somewhere around 1980 policy science’s original wave of success subsided. Lindblom & Cohen’s Usable Knowledge (1979) marks a period where policy scientists and analysts publicly doubt the ‘vallue-added’ for ‘ordinary knowledge’ of their ‘professional social inquiry’. From the disappointements with analycentric, neo-positivist and critical-rational policy analysis Carol Weiss draws the conclusion that the field is in intellectual crisis:¶ "That social scientists shape the world they study by the way they define the problem has come to be accepted not only by social scientists but by sophisticated political actors as well. They are aware that researchers’ assumptions, theories, and choice of variables can have large effects on the answer they find. This new understanding throws into doubt the accommodation (with political and administrative practice, R.H.) that earlier generations of social scientists had negotiated. If they no longer claim to find "truth" about "reality", what is their role in the policy process? The time seems to have arrived for a new set of assumptions and arrangements" (Weiss, 1991: 321).¶ The new assumptions - not, the new arangements - have arrived in the shape of the post-positivist turn. This means that even policy analysts - in the social sciences a rearguard in leaving the positvist and pure critical-rationalist trenches - admit interpretive, hermeneutic, and critical approaches to their stock of knowledge and methods. Within the post-positivist turn broadly perceived, four main currents may by discerned: relativistic, critical, forensic, and participatory policy analysis. ¶ A relativistic policy analysis can be attributed to the ‘early’ Lindblom and Wildavsky. His empirically grounded insights in the disjointed incrementalist practice of policymaking (Braybrooke & Lindblom, 1963; Lindblom, 1965; 1968) have always held Lindblom back from any enchantment with the idea of the attainment in practice of a more comprehensive rationality intimated by a Lasswellian policy science. As a ‘science of muddling through’, the most policy analysis could hope for was to provide policy practice with clever strategic shortcuts and simplifications (Lindblom, 1979). But to escape from the dangers of oversimplification, one had to trust the practice of pluralist politics, its partisian mutual adjustment, and its trial-and-error learning in the successive limited comparisons of serial adjustments. Take note that Lindblom’s theory harbors strong fallibilist and pragmatist convictions. In Usable Knowledge (1979) he holds on to these vital insights. The impact of professional policy analysis is limited, and adds only modest increments to the ordinary knowledge of politicians and public officials. Policy analysts are condemned to provide argumentative ammunition for the rhetorical struggles of politicians (policy analysis as argument or data, Weiss, 1991); only occasionally they discover a nugget of enlightenment (policy analysis as idea). ¶ Wildavsky’s views do not differ much from Lindblom’s, but they are more optimistic about the ‘art and craft of policy analysis’ (1979). After all, Wildavsky is the founding father of the University of Calfornia at Berkeley’s policy analytic curriculum. Policy analysis Wildavskian style is depicted as a dialogical and prudential balancing act in which the policy analyst helps both politicians and citizens find a practical middle ground between the ever present tensions of resources and constraints, cogitation and interaction, and dogma and scepsis. Like Lindblom in his widely acclaimed Politics and Markets (1977), Wildavsky, in the beginning of the eighties, lost his trust in political pluralism as an error-correcting safety net for biased, incremental policies ((Wildavsky, 1987: xv-xxi;1988). Concerned about increasing ideological cleavages among the American political elite and their impotence to forge a new national consensus, he turned to group-grid cultural theory to better grasp their diverging political frames (Douglas & Wildavsky, 1982). ¶ Until 1980, Lindblom and Wildavsky have defended interpretive-hermeneutic approach to policy analysis, in the sense that they, like anthropologists among the tribes of policy experts, have inquired into the policy practitioners’ rules for problem definition, policy design, formulation and adoption, implementation, and evaluation. This method accounts for the widespread acceptance of their empirical findings. Normatively speaking, however, their approach often meant unquestioned compliance with the rules of thumb and the supposed checks and balances of pluralist political practice. This is comparable to a hermeneutic approach to shared traditions and pre-understandings without any thought of the possibility of ideological, psychopathological or any other reprehensible bias or prejudice (Torgerson, 1993; but see Lindblom, 1990; Lindblom & Woodhouse, 1993). Many have pointed out that such an uncritical interpretivist-hermeneutic approach to policy analysis can lead to a scientifically (Wittrock, 1991) or morally objectionable relativism (Dryzek, 1993). ¶ The relativist approach has been attacked most by a critical-theoretical approach to policy analysis, advocated by Forester (1985; 1989) and Dryzek (1990; 1993; Bobrow & Dryzek, 1987). Their main accusation is that relativists disregard the conditions for consensus formation. Forester blames Wildavsky for failing to differentiate between political interaction (as a problem-solving strategy on its own right, in addition to cogitation or analysis) which does and does not elicit true learning among citizens (Forester, 1985: 265 ff). Forester deems this distinction essential in a political system where common sense and shared meaning can no longer be presupposed, and groups with clashing political frames of reference have an interest in maintaining public deception and bias. Habermas’ communicative ethics, especially his thoughts on the ideal speech situation in which people communicate free from power relations, deception and self-deception, is used as a standard for judging to what extent policymakers form a rational and genuine consensus. Policy analysts would have as their main task to monitor and foster means of authentic consensus formation.¶ To this end, Fox and Miller (1995:118-12) have proposed criteria for legitimate contributions to public debate: sincerity, situation-regarding intentionality, willing attention, and unique and indispensable expertise. These criteria demonstrate that the critical policy analyst does not pursue public participation for its own sake. He advocates discursive pluralism with an eye to the quality of decisionmaking and the authenticity of consensus formation. Nonetheless, Fox & Miller admit that in the virtual reality and image-struggles of the media it is difficult to judge to what extent political debate observes these four criteria. Forester has developed a typology of biased and distorted policy communication, and correponding counterstrategies for restoring trust and authenticity (Forester, 1989). The implication is that policy analysts themselves ought to see to it that their own communicative and argumentative practices are in order (Forester, 1989: 148 ff). The art of listening, respectful treatment of target groups, avoidance of unnecessary ‘officialese’ and other expert discourse, and the craft of initiating and conducting mutually enlightening debate - such are the professional skills of the critical-cum-interpretive policy analyst¶ Critical analysis is often criticized on two counts. Both regard the dangerous consequences of giving too much weight to the guiding ideal of the ideal speech situation. The first objection is that, however attractive from a theoretical perspective, these ideals are of limited validity in practice. Where is the borderline between deception and misunderstanding? Who is to determine what is the ‘better’ argument? To what lenghts should we go in debate and communication, where we also know that human rationality is bounded and fragile, and, sooner or later, we have to act? In other words, in all collective decisionmaking we reach dead ends, or undecidabilities, where debate, reasoning, and the force of the better argument are exhausted, and we have to shift to some form of collective will formation and legitimate power to bring the process to closure (Hoppe, 1983: 231-235; Bernstein, 1991: 221-222). All political systems are in need of procedures of managing conflicts unresolvable by debate and reasoned argument. The critical approach to policy analysis turns a blind eye to this problem. A second objection is that critical analysis often gets stuck in a form of counter-expertise disinclined to serious mutual reflection and learning. In such cases, the critical policy analyst just provides rhetorical ammunition for political fights, and just contributes to polarization, zigzag policies, and stalemate (Schön, 1983: 349-350). Torgerson (1995: 245) holds that "critique turns against both the domain of common understandings and the restricted nature of technocratic reason. … By… setting itself in judgment of common understandings, critique has an ironic potential to manifest itself as a mirror-image of technocracy." In addition, a critical policy analyst, although a partisan of ‘the people’, easily overlooks or divergent opinions among ordinary citizens. ¶ This danger is nonexistent for the forensic policy analyst (Dunn, 1981, 1993; Paris & Reynolds, 1983; Jennings, 1987; Fischer, 1980, 1995; Schön, 1983; Schön & Rein, 1994; Torgerson, 1995; Parsons, 1995: 440-444). To him it is self evident that, like in post-empiricist epistemology after Kuhn or the conditions for post-normal science specified by Funtowicz and Ravetz, policy practice is flooded by different thinking styles, diverging interpretive frames, competing policy belief systems, various ideologies, alternative professional paradigms, different world views, contrasting images of man and nature, multiple perspectives, and what have you. Such frames (Rein & Schön, 1994) are clusters of interlocking casusal and normative beliefs, whose functions are at once cognitive, communicative, and expressive of one’s identity. In order to infuse a polyvalent world with meaning, sense and purpose, and to make action and judgment possible at all, people need such frames as a sort of mental grappling hook. For instance, professional frames have been labeled the languages and cultures of ‘tribes of experts’ (Dryzek, 1993: 222) which create ‘contradictory certainties’ (Schwarz & Thompson, 1990). What people ‘see’, deem ‘relevant’, and judge ‘persuasive evidence’ on the basis of such frames, may indeed render them almost beyond comparison or translation.¶ The forensic policy analyst considers it his task to use the differences between frames to forge an innovative policy design from a combination of plausible and robust arguments (‘frame-reflective analysis’), or to test and bolster some frames (‘frame-critical analysis’, like in Mason & Mitroff, 1981; Paris & Reynolds, 1983; Thompson, 1997). Ideally, following rules of hermeneutic policy evaluation for arriving at shared constructions with policy stakeholders (Guba & Lincoln, 1989), and acting on the precepts of reflective practitionership (Schön, 1983), analysts marry frame-reflection and frame-criticism in an optimal mix of hermeneutic and critical moments in policy analysis. Forensic analysts do not unreflectively impose a particular professional or political frame on a problematic situation. Rather they consider the problem as unstructured to begin with. Structuring problems in a simultaneous process of reflection, action, and political strife, is the challenge of good analysis (Hisschemöller & Hoppe, 1996). Schön (1983) and Schön and Rein (1994) depict the foresic approach to analysis as an iterative itinerary among these three force-fields; a continuous process of bricolage between the policy analyst/designer, the policy design, and its wider environment, in which the policy design ought to eventually function independent of the analyst/designer. The process of analysis and design cannot be a straightforward one. Rather, the idea is to sustain creativity in one’s response to empirical uncertainties and normative ambiguities in an ever changing world. Neither goals nor means are fixed; they are transactionally constructed over and over again in intelligent deliberation and political argument, in a process of ‘naming and framing’(Schön, 1983: 40-48; 68) which may repeatedly unsettle and attack apparently dominant concepts and frames of meaning.¶ It is obvious that the forensic approach, especially one that successfully combines frame-analysis, frame-reflection, and frame-criticism, fully corresponds to the enlarged concept of rationality as learning. But the approach faces serious hazards. First, although some authors go to considerable lengths in describing and prescribing rules of thumb, adequate skills, and examples of best practice (Schön, 1983; Schön & Rein, 1994; Hoppe & Grin, 1995; Grin et al., 1997), the forensic approach remains relatively uncodified. This means that replication and error detection and elimination are weak. Partially, this is due to the nature of hermeneutics and critical theory, which share scepticism, and sometimes downright rejection, of codifying rules and formulating anything beyond the most general precepts of an approach to analysis. Second, the forensic approach, more than any other, is caught in a tension between the demands of good analysis and the daily practice of politics and public administration. The critical-rationalist and the relativist policy analyst uncritically adjust to common practice in the role of trusted adviser of the politico-administrative élite; and even the critical analyst easily slips into the role of a counter-expert. It is far more difficult to carve out an acceptable niche for a forensic analyst as ‘counselor’ (Jennings, 1987) or ‘participatory expert’ (Fischer, 1993). Much more thought ought to be given to the institutional aspects forensic policy analysis (cf. George, 1980). This is why, above, I argued that the new post-positivist epistemological assumptions may be considered in place, but the new institutional arrangements for developing and implementing them in practice have not yet arrived. ¶ Finally, a fourth, participatory current in post-positivist policy analysis should be distinguished. Theoretically, this current is heterogeneous, in that participatory analysts appeal to relativist, critical, and forensic concepts and themes. What unites their paradigm, is a principled selection of a fairly elaborate range of participatory analytic techniques, in which citizens qua citizens play important roles (Mayer, 1997). Primarily those inspired by critical theory insist on the intrinsic merit of direct citizen participation in political decisionmaking. They justify participatory analysis by claiming that it vitally contributes to participatory democracy as the only rational form of life for policy scientists and true democrats (Torgerson, 1986; Dryzek, 1990). These analysts systematically favor participatory techniques in which a panel of citizens is at the heart of the analytic process, like methods for conducting consensus conferences (Klüver, 1992) or planning cells (Dienel, 1992). The policy analyst’s role is to serve and bolster citizens’ policy recommendations (Hoppe & Grin, 1995: 101-102).¶ Relativist, critical, and forensic analysts value participatory analysis for instrumental and contextual reasons. They specify three situations in which the use of participatory techniques is indispensable. First, when a policy problem addresses citizens’ actions up-front, and finding an acceptable solution depends on appealing to and mobilizing citizens’ knowledge of local or regional conditions. Second, when policy issues have a strong ethical component (where experts have no privileged knowledge to bring to bear on the problem), or directly pertain to citizens’ needs and wants. Third, when experts are strongly divided over an issue. Those who view participatory analysis more as an instrument than a goal per se will prefer participatory techniques which produce structured debate between citizens, politicians, officials, interest group representatives, and experts, like scenario workshops (Mayer, 1997) and propositions debates (Hoppe & Grin, 1999). Here the analyst remains in control of the analytic process; citizens’ participation, in certain situations and under particular conditions, vitally contributes to the information base, validity or representativeness of the analyst’s interpretation of public debate.and his recommendations.¶ The advantages of participatory analysis are obvious. In the three conditions mentioned, citizens’ input to analysis is equally important, or even more important than the experts’. Methods of participatory analysis are excellent means of harnessing citizens’ ordinary knowledge to analytic purposes. Participatory methods are hardly disputed as expansion of the tool kits of relativist , critical, and forensic policy analysis. The most important criticism is that it is far from beyond doubt whether citizen participation actually improves and enriches the quality of policy debate. Formal evaluations document that citizens rate the quality of participatory debates systematically higher than policymakers and experts (Mayer, 1997: 138-140). In the absence of objective measurement and evaluation grounded in argumentation theory, it is difficult to judge to what extent such ratings are based on self-interested prejudice by policymakers and experts. More fundamental criticism remains focused on the aspirations for participatory democracy. In spite of the impressive possibilities of interactive use of contemporary information and communications technology, the practical objections to participatory democracy are likely to stay. The results of participatory analytic exercises, even when the size of citizen panels runs to the hundreds or thousands (like in some recent applications), will never be able to claim the same representativeness as elections, referendums, or even large scale opinion surveys. In that sense, policy science and analysis still face the dilemma between serving either participatory democracy and active citizenship, or an allegedly enlightened political and policymaking élite of the administrative state. A dilemma which is as urgent as ever, now that the political means for ‘making sense together’ look very fragile in the face of the fragmentation, incommensurabilities, ruptures, and confusions between value systems and world views. ¶ 1.The future of policy analysis: an argumentative turn?¶ Given the positivist beginnings and the post-postivist turn, what will the future of policy analysis look like? I would place my bets on an argumentative turn, within post-positvist constraints. An argumentative turn, the contours of which have been delineated already (Fischer & Forester,1993), would ban relativism, and simultaneously elaborate the usable elements of critical-rationalist, critical, forensic and participatory policy analysis in a new tool kit for policy advice. Such an argumentative turn coheres around three core insights: policy analysis is about crafting arguments; it cannot but deal simultaneously with the substantive and pragmatic aspects of argumentation; and it badly needs a more comprehensive set of quality warrants for policy argumentation (Hoppe & Peterse, 1998).¶ The first and most essential insight, lending its name to the argumentative turn, is that crafting policy advice - even in the critical-rationalist mode, as shown above - ultimately depends on argumentative practices (Forester, 1989; Fischer & Forester, 1993: 2; Hoppe, 1993: 78-79). Whatever other activities engaged in by a policy analyst, everything serves the gathering, selecting, weighing, and combining of arguments, in order to weld an argumentative chain strong enough for launching and defending a policy proposal to be put to severe tests by several audiences. Second, in policy advice as argumentation for an audience there are always two parallel stakes involved: the analytical substance of the policy argument, measured against critical-dialectical standards, and the argument’s illocutionary and perlocutionary functions in the communication process between a sender and a receiver, measured by rhetorical-performative standards. This implies that no piece of policy analysis, like in the positivist days, can ignore its audience and its institutional context. Third, relativism can be avoided by making the quality of argument the organizing principle of policy science and analysis. Systematically applying the quality principle, and deriving specific quality criteria for judging arguments in many different types of debate settings, would enable the policy analyst to keep distinguishing between better and worse arguments. Dunn (1993: 263-264) proposes as the aim of a critical applied social science¶ "to investigate concepts and procedures used to argue and settle practical claims. … (A)rgumentation is a process of rational advocacy in which stakeholders engage in competitive reconstruction of knowledge claims. This competitive reconstruction, in contrast to the competitive reconstruction of experiments (italics, rh), leads toward a pragmatic and dialectical conception of truth in which social discourse plays a reflective and critical role in producing new knowledge. Knowledge is no longer based on deductive certainty or empirical correspondence but on the relative adequacy of knowledge claims (italics, rh) embedded in ongoing social processes." ¶ The future of policy analysis, then, would entail the development of an increasingly comprehensive set of quality warrants for valid argumentation. To fulfill this task, next to obvious excursions into argumentation theory, policy science can in principle use hermeneutic-interpretive and critical-theoretical insights, but policy analysts will have to show much more creative and pragmatic ingenuity to give them a practical bent. Furthermore, critical-rational insights, especially rules for valid causal inference, remain part and parcel of an argumentative policy analysis worthy of its name.¶ An argumentative turn in policy analysis methodology would substantially affect the practice of policy advice. Argumentative policy analysis entails a looser coupling, sometimes even a decoupling, of policy analysis from its traditional context of decision support for government-initiated public policy programs. In argumentative policy analysis it is no longer government decisions, but public argument and debate that claim center stage. Public argument and debate are either an established context gratefully used, or, in cases of as yet underdeveloped public fora, a context to be created by good forensic and participatory analysis (Hoppe & Peterse, 1993; 1998). Like market inspectors who judge the fairness of market conditions and issue measures to restore them, argumentative policy analysts would sometimes claim the role of ‘inspector’ of the fairness of the marketplace for ideas (Asard & Lance Bennett, 1997), and assume democratic-pedagogical functions (Fischer & Forester, 1993: 6-7) - they would, literally, make (small-d) democratic (capital-D) deliberation happen.¶ After bringing public debate to a timely but always temporary closure, the argumentative analyst would, of course, draw conclusions for issues where a genuine consensus for further policy design and implementation has been created. But also where consensus is still lacking, and even where dissensus has sharpened, the argumentative policy analyst does not stand empty-handed. In the former case, s/he may advice governments and other stakeholders on how to jointly elaborate a strategy for partisan and serial adjustments that increases the likelihood of greater consensus at a later stage. In the latter case, s/he may detect, in the chaos of discord and confusion, those rare opportunities which may still exist for joint inquiry and continued dialogue (Roe, 1994; Van Eeten, 1999); in the hope that opportunities for consensus formation are kept open, and in the certainty that continuation of dialogue in spite of discord is rational for sustaining the delicate fabric of the body politic (Diesing, 1962).¶ In sum, argumentative policy analysis is, first, epistemologically grounded in a fallibilist-dialogical concept of scientific rationality, and a social-constructivist perspective on social reality; second, it is based upon a selection in context (Bobrow & Dryzek, 1987) of the most usable parts of the critical-rationalist, critical, forensic, and participatory traditions; and, third, it does not advocate a sudden and complete paradigm shift, but a patient and persistent process of revamping and testing a new tool kit for professional policy analysis. In this way, ‘speaking truth to power’ may be transformed into an argumentative policy analysis which reinvigorates political prudence as ‘making sense together’, even in this paradoxical age of politicization of science and scientization of a post-national and post-parliamentary politics.

#### This *overconfident* *truth-claiming* *obstructs* productive political engagement – the alternative is to reward *fallibilist* *truth-seeking* – prioritizing *why* over *what* is the only way to produce a politics capable of dealing with *truly existential risks*

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1. Introduction America is in serious trouble. The problem is not “secular progressives,” as some have suggested, nor is the problem the rise of the Tea Party. I will argue that virtually all the problems facing Americans today stem from a single phenomenon: anti-intellectualism. Anti-intellectualism is not the same as ignorance. As I've written before, the fact is that everyone today knows almost nothing about most things.1 This is a direct consequence of the exponential growth of collective human knowledge: what humanity as a whole knows is expanding rapidly while the mental capacities of the individual are staying roughly the same.2 We are all unavoidably ignorant about nearly everything – politics, science, philosophy, literature, and so on. The question is how we deal with this ignorance. The anti-intellectual posture is one in which individuals are resistant, either passively or actively, to knowledge, especially when it challenges dearly held beliefs.3 It follows from this definition that an intellectualist is someone who strives for knowledge – or at least looks to the relevant experts when knowledge is lacking. Notice that an intellectualist need not be an intellectual: there is no cognitive requirement for espousing intellectualism. What makes one an intellectualist is merely a respect for evidence, facts and genuine expertise, as well as a commitment to intellectual honesty. This means putting the why of belief before the what, i.e., it means accepting a belief when and only when there are good reasons for doing so, even if one finds the belief undesirable.4 After all, true statements are true whether we want them to be or not. Already I've mentioned a lot of terms that, upon reflection, do not have obvious definitions: “facts,” “evidence,” “reasons,” “belief,” “true.” These terms are in need of philosophical clarification, and this is precisely what I want to do below. Although there is not a single claim I make here that's immune to scrutiny, the answers I give to questions like “What constitutes a good reason for believing something?” and “What is truth?” are fairly standard and well-established. Understanding them – even if one goes on to modify certain aspects of these views – will provide a robust point of reference, a grounding in philosophical positions that are widely accepted (and for good reason!). I hope readers will come away with a much better sense of what it means to be rational, of why it's deeply misguided to believe that global warming isn't real, that evolution didn't happened, that Jesus ministered in North America after his resurrection, that Muhammad was the last great prophet of Allah, that homosexuals shouldn't be allowed to marry, that Jesus healed a blind man with mud made from spittle, that the world will end in December 2012 because of the Mayan calendar, and so on. 2. Truth Let's begin with two questions: first, What sort of things can be true or false? And second, What must be the case for things of this sort (whatever they are) to count as true rather than false? These are crucial questions that a deep understanding of truth requires one to think about. There are many possible candidates for what can have the properties of being true or being false. One thing that cannot is, for example, a chair. (Bear with me for a moment!) A chair can be neither true nor false by its very nature, just as justice can be neither short nor tall and the number three can have no mass or weight. What about a desire for something? Can that be true or false? This is a less obvious case than the chair, but it turns out that desires are in the exact same category. That is to say, desires and chairs are not “truth-evaluable” types of things. My desire for coffee isn't either true or false, it just is. One could, of course, talk about whether or not it's true that I desire coffee, but now we're talking about something else, not the desire itself. What are we talking about, then? The best answer – and the one most widely accepted by contemporary philosophers (who spend their days thinking about such issues) – is that propositions are what exhibit the properties of being true and being false. Not chairs, desires, cars, love, hopes, justice, apples, and so on, but propositions. These are the only kinds of things in the entire universe that are truth-evaluable: if it's not a proposition, then it's not true, yet it's not false either. It's in a different category altogether. But what exactly are propositions? A proposition is simply a description of reality, of some possible configuration of the world or state of affairs. Examples of propositions include: “Lazarus rose from the dead,” “The US has the best health care system in the world,” “I ate the last piece of bread this morning,” “Vishnu created the universe,” “God is three completely distinct persons who are also completely identical in substance.” Propositions are what constitute the contents of beliefs – i.e., they are what beliefs are about. Beliefs, then, are a kind of (what contemporary philosophers call) “propositional attitude.” This means that the word “belief” picks out a specific sort of relation that holds between two things: individuals and propositions.5 Note there are many different relations, or “attitudes,” that one can have toward a proposition. One could, for instance, hope that Lazarus rose from the dead, hate that I ate the last piece of bread this morning, maintain that God is three-in-one, and so on. The relation of believing specifically involves an individual asserting that a given proposition is a true description of reality – of what the world is like or how it works. This is what it means to believe something. (In contrast, the relation of desiring has to do with the way one thinks reality ought to be, independent of how it actually is. All propositional attitudes can be more or less reduced to either beliefs – “informational” in nature – or desires – “directional” in nature, in that they involve one wanting the world to be a certain way.6) This leads us to the second question posed above: What are the conditions under which a proposition can count as true rather than false? One way to answer this question is to think of propositions as little maps inside our heads – that is, maps of reality. An actual map is an idealized description of the world (or some spatiotemporal region therein). Whereas an actual map typically provides this description graphically, pictorially or imagistically, the mental maps inside our brains can be expressed in linguistic form.7 This being said, an actual map is “true” when it accurately corresponds to the region of the world it aims to represent. In exactly the same way, the maps inside our heads – i.e., the contents of our beliefs – are true when and only when they can be mapped onto reality without error. A proposition is true when what is says the world is like lines up with what reality is actually like.8 The goal of rational agents like ourselves is to get the vast network of mental maps that form our worldviews to align as completely as possible with the external world in which we live. When we achieve such an alignment, our worldviews are true; when there's a mismatch between our beliefs and reality, then the mental maps we hold are false and should be abandoned. The question now becomes: How do we get our beliefs to line up with the external world? When is one justified in holding a given proposition? Under what conditions can one be confident that what a given proposition says about reality lines up with reality itself? 3. Evidence The questions posed above are variations of this: What makes it reasonable for one to accept a given belief about the world as true? In over two-thousand years of Western thought, the best answer that philosophers have come up with is that evidence, and only evidence, is what makes accepting a belief reasonable.9 In the absence of evidence, a belief will be unreasonable to believe. As the “evidentialist” maxim goes, one should always proportion one's beliefs to the evidence: if there's only a little evidence for a belief A, then A should be held with only a little confidence; if there's a lot of evidence for A, then A should be held with a lot of confidence. At the extreme, when there's overwhelming evidence for A, we may start talking about A as a fact. The claim that biological organisms have evolved for 3.5 billion years on Earth is so thoroughly corroborated by heaps of evidence from a variety of different domains that evolution as an historical event is virtually certain. Biologists consider it to be a fact. Same goes for the link between smoking and cancer, the claim that the earth revolves around the sun (and not vise versa), and the assertion that Obama was born in the United States. In sum, evidence makes beliefs more probable, and what “being reasonable” means is nothing more than holding less probable beliefs less strongly and more probable beliefs more strongly.10 While evidence increases the chances that a given belief is an accurate map of reality, it cannot guarantee truth. An exception comes from logic: one can use logical reasoning to prove, with the greatest certainty possible, that propositions like “There are no circles with corners” and “If Socrates is a man and all men are mortal, then Socrates is mortal” are true, and that propositions like “Jesus could doubt the existence of God” are false. (Jesus couldn't doubt the existence of God because, on the assumption that trinitarianism is true, Jesus was God, and an omniscient deity can't be unsure of its own existence.) This suggests a difference between proof and probability: logic can sometimes be used to prove certain beliefs; in most cases, though, the best one can do is establish that a belief is more or less likely to be true. Absolute certainty is unattainable. But why? The answer is that it's always possible in principle for a future piece of evidence to refute some previously-justified-by-the-evidence belief. You can never know for sure what you're going to discover tomorrow. Although there is overwhelming evidence for the proposition that species have evolved over time, it still remains possible for paleontologists to discover an animal fossil that dates from before the Cambrian explosion, when animals first appeared on Earth. Given the current evidence, such a discovery is highly improbable. But improbability does not equal impossibility.11 Relying on the evidence to shape and mold one's belief system thus leads to fallibilism, the view that one could be wrong about virtually anything. It also explains why “flip-flopping” – typically considered a sin among politicians – can sometimes be a good thing. The important question is “Why?.” If the reason for flip-flopping is that some new piece of evidence is uncovered that makes a previously unreasonable belief reasonable to accept (or vice versa), then changing views is highly rational. But if one changes views for non-evidential reasons – for example, because one thinks it will get one more votes, or because of pressure from a special-interest group – then flip-flopping is wrong and should be denounced. For the fallibilist, what ultimately matters is the why behind the belief rather than the what – in other words, reasons over content.12 The network of mental maps that one holds thus changes freely in response to the evidence (as it comes in), even when the most reasonable belief is not a belief that one wants to accept. While evidence cannot guarantee truth, as defined above, philosophers recognize that it's nonetheless our very best guide to the truth. (I'm reminded of Winston Churchill's famous claim that democracy may or may not be a very good form of government, but it's certainly the best we've ever tried!13) Consider the historical case of geocentrism and heliocentrism. The first hypothesis asserts that the sun revolves around the earth, whereas the second asserts that the earth goes around the sun.14 At some point in our past, the best evidence humans had to arbitrate between these two hypotheses was unaided observations of the sun apparently rising and setting each day, and the sensation of standing on an ostensibly stationary body. Relative to this extremely limited pool of evidence, geocentrism is the most reasonable position. Thus, the available evidence actually led us to a false belief. But over time, as more observations were made, as the pool of evidence grew larger and its quality got better, the evidence came to support heliocentrism over geocentrism. Intellectually honest people began to doubt geocentrism and accept the heliocentric model of the Solar System, even though the Catholic Church taught the exact opposite. Today, a vast pool of evidence corroborates the theory that the earth isn't stationary but moves around the sun once every ~365 days. We're so sure about this now, given the available evidence, that we call heliocentrism a fact. In this way, then, the evidence fallibilistically guided us to the truth, although the journey first took a detour through a falsehood. Beliefs not only need to be based on some evidence to be justified, warranted and reasonable to accept, but they must be based on one's total evidence. For example, a belief A might be supported by pieces of evidence 1, 2 and 3. But another belief B – a belief that is mutually incompatible with A – might be supported by pieces of evidence 4, 5, 6, 7, 8, 9 and 10. If all the evidence here is of roughly the same value / quality, then the reasonable belief would be B rather than A, even though A has some positive evidential support. Furthermore, if the evidence for two competing beliefs is of equal strength, then the reasonable position is agnosticism. Finally, we should note that the word “evidence” is often used in different ways by different people. Some of these uses are problematic. For example, religious individuals around the world often take their inner feelings of the God or gods in which they believe – i.e., religious experiences – as evidence for their various religious beliefs. While a Muslim might claim to feel the presence of Allah around him during prayer, a Christian might talk about how God “called” him to pursue a career as a pastor. A Buddhist might similarly talk about obtaining nirvana, and a fortune-teller about seeing the future. I knew someone who spent two months in a coma and, upon waking, claimed to have met Jesus, Muhammad and the Buddha, all of whom apprised him that the organized religions of the world are all wrong. This was a life-changing experience for him – and he's not the only one who's gone through such an ordeal.15 The problem here is that this “evidence” is not intersubjectively verifiable. It is subjective rather than objective in nature and, as such, it cannot be checked by third parties. As a result, one can do nothing more than merely take someone else's word for it – the Christian's, the Muslim's, the Hindu's, the Buddhist's, and so on. Thus, checkability is important is because it ensures that the “evidence” uncovered through some experience is not the result of three possible things: delusion (a schizophrenic person believing that God is talking to him or her16), self-deception (a sincere individual who's gullible and gets carried away with some belief), or trickery by another person (a demagogue who fools people into believing nonsense). When third parties can check a given claim, that claim becomes more secure – and the more independent observers, the better, for obvious reasons. A similar point can be made about essentially singular events in history. Many religions are theologically founded on supernatural occurrences that have, and maybe can only have, happened once. (Very often these events occurred among peoples who lacked scientific understanding and insight. Seizures are, for us today, fully explicable in terms of uncontrolled neural activity in the brain, but for individuals in Jesus' time, seizures would have been attributed to supernatural phenomena like demon possession or prophetic visions.17) The Mormon religion, for example, claims that Joseph Smith was visited by the angel Moroni. This is a crucial event in the narrative of Mormonism's birth. Similarly, the New Testament states that Mary was visited by the angel Gabriel who informed her that “thou shalt conceive in thy womb, and bring forth a son.” And Muhammad also claimed to have communicated with Gabriel, who revealed to him the Koran over a span of 23 years. A nearly endless list of revelations had by individuals in mutually incompatible religious traditions across cultural space and time could be mentioned here. The problem is that non-repeatable events are much easier to lie about, to be self-deceived about, and to be faked by people hoping to fool others. What if I were to tell you that last night God visited me in my room and told me that the world will end next Tuesday? Since this event can't happen again – it's non-repeatable – and since you can't travel back in time to sneak into my room and double check that I'm not lying to you, that I wasn't hallucinating after taking an Ambien, or that my partner wasn't playing a well-orchestrated joke on me, your only option (aside from rejecting it as highly improbable) is to simply take my word for it. In contrast, the reason historians accept singular historical events like the assassination of Franz Ferdinand is because there are heaps of independent evidence that make belief in Ferdinand's assassination rational. What independent evidence is there that the Apostle Paul had a “direct revelation from Jesus Christ” (Galatians 1:11) or that Joseph Smith spoke with Moroni? Virtually none. So, if you're skeptical about my supernatural encounter last night, then you should also be skeptical about the veridicality of Paul's claims and Joseph Smith's claims and Muhammad's claims and Brian David Mitchell's claims (etc.) – that is, given the best evidence available to us in the twenty-first century. In sum, total evidence is what justifies beliefs about reality. This evidence should be public in nature and (preferably, in some way) repeatable. A bone from Homo habilis, for instance, can be observed by multiple people at different points in time, and a collision of lead ions at a particle accelerator like the Large Hadron Collider at CERN can later be repeated by others in different places. A feeling that the divine is present and a revelation of some supernatural being characteristically cannot be checked by (dis)interested third parties. 4. Science and Religion This points at a fundamental difference between science and religion. Whereas religious doctrines are typically accepted in the absence of objective, third-person checkable evidence (this is what religious faith is all about18), there isn't a single widely accepted scientific theory that isn't supported by loads of intersubjective / repeatable evidence. When it comes to science, no one is required to simply take someone else's word for it – you can always go and see for yourself if you have even the slightest bit of doubt. (The only restrictions here are practical rather than principled. That is to say, some claims made by scientists might be difficult for non-experts to verify, but only because non-experts lack the requisite knowledge, skills and instrumentation to see for themselves. Thus, with the right education and technology, anyone can examine a Homo habilis bone or “read” an image of lead ions colliding in a particle accelerator.) This is no trivial point. The central reason that science has been so phenomenally successful at telling us what our universe is like and how it works is that it adopts the strict – but nonetheless commonsensical – requirement that beliefs must always be based on evidence. Whereas science begins with the evidence, which is uncovered through empirical investigation (in the field) and experimentation (in the lab), and then moves to beliefs, religion begins with beliefs and then tries to get the available evidence to fit a pre-established worldview. Religion is founded on immutable truths and infallible doctrines; science is open to virtually any claim about the world just as long as the evidence supports it. In fact, much of what science tells us about the world (especially the macroscopic and microscopic levels of reality, which we didn't have to understand in order to survive in our past evolutionary environment) is highly unintuitive.19 That is to say, a thoroughly intuitive strategy for acquiring knowledge – simply “looking and seeing,” as occurs with scientific investigation and experimentation – has led to a vast number of propositions that stretch the imaginative capacities of human beings to the limits.20 Contemporary science tells us that mass and energy are equivalent; species are not fixed through time; the universe began with a “big bang” some 13.5 billion years ago; our ancestors were ape-like creatures that evolved in East Africa; matter is literally 99.9% empty space; and so on. At first glance, these are all (admittedly so!) outrageous claims. But every one is secure beyond a reasonable doubt, since all are based on a great deal of objective evidence. Science doesn't care what the belief is, it cares about why one should accept it.21 Some people criticize science for not providing the sort of “certainty” that religions like Christianity and Islam claim to offer. Science often changes its mind – it flip-flops on issues. But this is exactly what one should expect from an evidence-based, truth-seeking enterprise. Imagine that you have a jigsaw puzzle consisting of 1,000 pieces on the table before you, and that you have no idea what the puzzle's picture is. Randomly scattered about, the pieces are no help. After putting 50 pieces together you see a bluish cloud; another 50 reveals a face. A guess (or hypothesis) at this point will probably be incorrect, but you're nonetheless starting to get some idea of what the picture might be. As you fit more and more pieces together, your guesses will tend to improve in accuracy. With 900 pieces locked in place, you might be able to recognize the picture as (let's say) Paul Gauguin's famous Where Do We Come From? What Are We? Where Are We Going?. In this way, your hypotheses got better over time as the “evidence” available to you increased.22 Science is exactly like this: it provides increasingly accurate approximations of truth as the pool of available evidence grows deeper and wider. This is why science sometimes flip-flops – but not the way politicians often do, the bad way mentioned above. When it comes to deciding which beliefs to accept, all that matters to science are the reasons one can adduce, and the belief system (interconnected theories and hypotheses) accepted by the scientific community is always responsive to newly discovered checkable evidence. The tentative nature of scientific beliefs is not a vice, but one of science's greatest virtues. To paraphrase Stephen Hawking, the problem with the world today is not ignorance but the appearance of knowledge when there is none.23 5. Faith While many Americans cringe at the word “atheism” – in fact, atheists are the least trusted demographic in the US, even behind Muslims, feminists, homosexuals and rapists24 – referring to oneself as a “person of faith” tends to earn respect and admiration. In 2012, it's virtually inconceivable that an open atheist could become the President of the United States, and six states still explicitly ban atheists from holding public office (Arkansas, Texas, South Carolina, Tennessee, Mississippi and Maryland). From a philosophical point of view, though, the sort of faith exemplified by religious belief is highly problematic. Indeed, accepting propositions about how reality is and ought to be merely on faith is profoundly foolish and, in our increasingly technologized world, immensely dangerous. Allow me to explain. There are many different senses of “faith.” The most general definition is trust in someone or something. Defined as such, faith involves a relation between two individuals, such as a Muslim and Allah or a Christian and God. But when people talk about having faith that God is real and he loves them very much, for example, they're not using this sense of “faith.” The reason is that “God is real and he loves me very much” isn't an individual, but a proposition. Thus, in addition to the trust sense of the word (sometimes called the fiducial meaning), there is also a propositional sense. It's this sense that figures centrally in discussions of whether or not religious belief is reasonable, since faith in so-and-so isn't truth-evaluable – it's neither true nor false, like the chair I'm sitting on or my desire for coffee – but faith that such-and-such can indeed be evaluated for truth. Thus, philosophers characterize propositional faith as a species (or type) of belief. It's worth noting here that knowledge too is a species of belief. According to the most widely held theory (first put forth by Plato), knowledge can be analyzed into three components: belief, truth and justification. In other words, you can't know a proposition P if P fails to be justified; if P turns out to be false; and if you don't believe P in the first place. All three must be satisfied, and as soon as all three are, you've got knowledge.25 Thus, while some science writers like to exclaim that biologists don't believe in evolution, they know it, this is very misleading. All knowing involves believing, but not all believing involves knowing.26 This is what makes knowledge a species of belief.27 We discussed above that, according to the most widely held and commonsensical view (evidentialism), “being justified” amounts to a belief being favored by one's total evidence. Whereas knowledge requires evidential support, the word “faith” picks out a kind of belief that fails to be based on the best evidence available. In some cases, faith involves accepting a belief not merely in the absence of supporting evidence, but in the presence of contradictory evidence. The existence of an immortal soul provides an example: everything we know about how the brain works and its relation to our thoughts, feelings, moral judgments, consciousness, personality, memories, and so on, suggests strongly that the “soul,” as traditionally understood, cannot exist apart from the brain. This is why a large majority of researchers in neuroscience, cognitive science, neurobiology, evolutionary biology, and the philosophy of mind reject the view that our souls / minds can float free of our brains. (Even many God-believing theologians in the twentieth century abandoned the traditional position in favor of a more evidentially-informed materialistic worldview!28) Yet a majority of the religious flock around the world, in the US, still accepts a body-soul metaphysics, called “substance dualism,”29 according to which the mind is not dependent upon the brain for its existence. Given the intersubjectively verifiable evidence to the contrary, the only way to continue believing in immortal souls is through either faith or ignorance. 6. Politics Although the domain of religion provides the clearest examples of faith – dogmatic belief without the support of checkable evidence – one can find faith in many other domains. One can, indeed, adopt atheism out of faith. The crucial question that everyone should always ask in every situation is: Why does one believe whatever it is that one believes? If one accepts atheism simply because “Richard Dawkins was such a dashing young man!,” then one is no better than (say) the Mormon who thinks that Joseph Smith really did translate golden plates with hieroglyphics written on them using seer stones inside his hat.30 It follows that what the world needs now more than ever before is not more atheists per se, but more people who care most of all about the evidence, who strive to put the why before the what, who champion the humble attitude of fallibilism – who are, in a word, intellectualists. As far as I can tell, the evidence does favor atheism more than any alternative. It follows that insofar as this is true, intellectualism will naturally lead to atheism. But beliefs like atheism should always be the destination, not the point-of-departure.31 As alluded to above, politics is a domain in which faith shows up quite often. Is “Obamacare” a “government takeover of health care”? This has been repeated ad nauseum by conservative pundits and politicians. But the evidence suggests that it's absolutely false. The non-partisan fact-checking organization PolitiFact even labeled it the 2010 “Lie of the Year.” Similarly, Sarah Palin has famously stated over and over again that Obamacare would result in the formation of “death panels” that would decide the fate of elderly people. This too is absolutely false. Accepting these beliefs thus requires a good dose of faith – it requires that one disregard and ignore the best evidence available. As a result, rather than having a genuine, honest and sophisticated discussion about the pros and cons of healthcare reform, anti-intellectualism muddled the entire debate. And when 50 million Americans don't have health insurance and some 45,000 die each year from their lack of access to medical care,32 this is no trivial thing.33 Although anti-intellectualism can be found on both sides of the political spectrum, it's far more prevalent on the conservative right. Consider Fox News, whose motto could hardly be more Orwellian: “Fair and balanced.” Numerous studies have shown that Fox News viewers are significantly more misinformed than any other demographic – including those who don't watch any news at all. These studies have focused on a variety of issues, from the overthrow of the Egyptian government to the Iraq War to health care to the 2010 election to the reality of global warming.34 As a professor of political science who published a paper on how knowledgeable people were about the Egyptian and Syrian uprisings put it, “Because of the controls for partisanship, we know these results are not just driven by Republicans or other groups being more likely to watch Fox News. Rather, the results show us that there is something about watching Fox News that leads people to do worse on these questions than those who don't watch any news at all.”35 A similar study conducted by the University of Maryland found that there exists an actual correlation between watching Fox News and holding beliefs that are factually untrue. On the flip side, the most educated group of people in the country – academics, professors – are overwhelmingly liberal. One study found that 72% of US professors consider themselves liberal, while only 15% self-identify as conservative. (The results were skewed even more at the most prestigious schools, where 87% are liberal and 13% conservative.)36 There's no big mystery here. As one philosopher writes, “[I]f you actually take the time to look at history and culture, certain conclusions about human nature, society, and economics tend to force themselves on you. … [M]ost of those in the liberal arts have concluded that there really isn't any other intellectually respectable way to interpret the broad contours of history and culture. They are liberal, in other words, by deliberate and reasoned choice, based upon the best available evidence.”37 Or, to quote the comedian Stephen Colbert, “[R]eality has a well-known liberal bias.” The whole job of the academic is to get closer to reality, to construct increasingly accurate maps of what the world is like and how it works. While liberals dominate in academia, conservatives often express ambivalence about or outright opposition to education and the mode of analytic / critical thinking it promotes. For example, the Texas GOP said the following in it's official 2012 platform: “We oppose the teaching of Higher Order Thinking Skills (HOTS) (values clarification), critical thinking skills and similar programs ...” And why not oppose critical thinking if you're a religious conservative?38 We now have controlled studies that establish a causal link between analytic thinking and religious disbelief, such as one published this year (2012) in Science.39 With respect to IQ, multiple studies have reported that liberals are, on average, more intelligent than conservatives. One study published in Psychological Science found that adults with low intelligence tend to adopt socially conservative views,40 while another in Social Psychology Quarterly found that adolescents with the highest IQs were the most likely to identify as “very liberal” and those with the lowest IQs most often identified as “very conservative.” Individuals of average intelligence, according to this same study, tended to identify as “middle of the road” centrists.41 The resulting situation is very worrisome. Consider the phenomenon of global warming. While 20% of Democrats thought that global warming is “exaggerated” by the news in a 2011 Gallup Poll, 67% of Republicans held this position.42 As mentioned above, Fox News viewers are disproportionately misinformed about the reality of anthropogenic climatic changes. (I'll never forget the Fox News website putting up a “You Decide” survey on the question “Has the sea level risen?”) This is no trivial thing either. The Bulletin of Atomic Scientists, which maintains a “Doomsday Clock” that symbolizes the likelihood of a global catastrophe, recently added global warming to its list of doomsday concerns. As the Bulletin states, the “dangers posed by climate change are nearly as dire as those posed by nuclear weapons.” The fact is that global warming is human-caused and potentially catastrophic – beyond a reasonable doubt. Yet a large number of Americans, especially conservatives, refuse to even accept that climate change is happening.43 One consequence of global warming is the loss of biodiversity. Humans depend on other living creatures – on the biosphere – for our continued existence. But few people realize that we are in the midst of the sixth mass extinction event in the entire 3.5 billion year history of life on Earth.44 (The last mass extinction event happened about 65 million years ago and resulted in the extinction of the dinosaurs.45) Species are dying out at up to 10,000 times the normal “background” rate of extinction.46 According to the 3rd Global Biodiversity Outlook report, the population of vertebrates – birds, mammals, reptiles, sharks, fish, rays, and so on – living in the tropics declined by a whopping 59% in only 36 years (between 1970 and 2006). Furthermore, 48% of all primates alive in 2012 were threatened by extinction;47 50% of turtles and tortoises are near extinction;48 33% of amphibians (considered to be “ecological indicators”) are facing extinction;49 33% of birds in the US are endangered;50 up to 18% of all animals, fungi and plants in the US are in danger of going extinct;51 and so on. There are, in addition, over 400 “dead zones” in the ocean as a result of human-made pollution.52 Conditions in these dead zones are such that all marine life except algae will suffocate due to a lack of oxygen. And a shocking paper published in 2012 by over 20 scientists and published in Nature warns that, based on the best available evidence, humanity faces an imminent and irreversible collapse of the global ecosystem.53 Some conservatives accuse environmentalists of being alarmists about global warming, biodiversity loss, and related phenomena. But being alarmed is not the same as being an alarmist; conservative critics confuse two distinct phenomena. Simply put, alarmism involves being more alarmed than the evidence warrants. One should, following the evidentialist maxim above, always proportion one's alarm to the evidence. No one would accuse an individual who's being chased by a lion in the African savanna of alarmism, no matter how alarmed he or she may be. Thus, given the facts mentioned just above, people positively ought to be alarmed – very alarmed – about our current predicament, about the dwindling probability that human civilization will survive the coming centuries. There is, in fact, a burgeoning new discipline in which “existential risks” – i.e., catastrophes of global scope and terminal intensity that can, by definition, only happen once in a species' history54 – are being studied by scientists and philosophers. According to these “secular eschatologists,” the chance of humanity bringing about its own demise is frighteningly high. Estimates of self-annihilation typically range from 25% to 50% in the present century.55 We truly are living in unprecedented times.56 7. Conclusion A democracy can only function if the voting population is informed about the relevant issues. The anti-intellectualism that lies deep within American culture is a profound and dangerous obstruction to a healthy democracy – to solving the very serious problems facing human beings today, from global warming to a broken US health care system. There has never been a time in human history when it's been more important for people to pay attention to the evidence, to put the why over the what (i.e., think critically), to make their belief systems responsive to the facts as they come in, to be intellectually honest even if it means abandoning dearly held beliefs, and to recognize that faith is never a good reason for accepting a proposition about reality. What's frustrating is that solutions to problems like climate change are out there – they are! – but experts can't even begin a productive public discussion about them because a large portion of the public thinks global warming isn't even real. There are sophisticated debates to be had about the merits of different kinds of health care systems, but we can't even begin to have these until political leaders stop confounding public discourse with talk of “death panels” and warnings of a “government takeover.” Until this unfortunate and deeply irresponsible situation changes, the present and future of humanity will remain precarious. I hope this paper can help clear the waters a little bit by providing easily digestible definitions of basic philosophical concepts like truth, justification and evidence – concepts upon which intellectual activities and endeavors of every sort are fundamentally based. In sum, adopting the stance of intellectualism is, I believe, a necessary first step that we all must take to save the world from disaster. A technologically advanced society with the capacity for self-annihilation cannot be run by people of faith, by people whose worldviews are shaped more by ideology and revealed “truths” than empirical facts and logical reasoning. To borrow a phrase from Bertrand Russell, humanity must strive to have a “robust sense of reality” if we want to prosper on our increasingly crowded spaceship Earth.57

### Case

#### The 1AC is a set of empty *claims* with few coherent *warrants* and little to no *data* – *raising the bar for what constitutes an argument* is the only way to check the escalation of lazy scholarship, overconfidence, and dogmatism

Powell – management scientist and business strategy professor @ Oxford – 1 (T.C. Powell, Tutorial Fellow in Management Studies at St Hugh’s College and Professor of Strategy at Oxford’s Said Business School, “Fallibilism and Organizational Research: The Third Epistemology,” 2001, http://thomaspowell.co.uk/article\_pdfs/Fallibilism\_web\_version.pdf)

If organizational knowledge is truly achievable, then knowledge-claiming is defensible, and a contest of knowledge claims is a reasonable process for advancing organizational research. However, the role of epistemology in social science is not merely to justify our knowledge claims, but to probe the justifiability of knowledge-claiming itself. If we cannot show that organizational knowledge is possible - or in what sense such knowledge is possible, or the limitations of knowledge-claiming as an activity - then our claims to know organizational propositions are premature. Moreover, if the possibility of organizational knowledge is poorly established, or cannot be established, then the prevalence of knowledge-claiming on both sides of the organizational debate is itself a behavioral pattern worthy of investigation. The primary theme of this paper is that the possibility of organizational knowledge has neither been established nor significantly discussed in organizational research. By epistemological neglect and persistent overclaiming, the objectivist-subjectivist debate has devolved into something less than productive and progressive scholarship, resembling instead a sectarian struggle between competing and entrenched dogmatisms, or faiths. With neither party having established the grounds for knowledge-claiming, the debates consist all too often of empty persuasion and rhetorical flourish, devoid of epistemological foundation. To see how it might have been otherwise, we need only compare the dualistic debates in organizational epistemology with epistemological debates in philosophy itself. Objectivism and subjectivism did not spring forth as original insights in organizational research but emerged from long-standing Western and Eastern philosophical traditions. But in every major philosophical tradition we find a third branch of epistemology altogether absent in the two organizational perspectives – a fallibilist epistemology concerned with establishing criteria and justifications for knowledge-claiming. In philosophy, fallibilism acts as a kind of thermostat, deterring and constraining excessive knowledge claims among positivists, realists, empiricists, idealists, rationalists, 5 existentialists, etc., and thereby protecting the discipline’s epistemological integrity. Without such a constraint, epistemological debates might easily descend into semantics, extravagant overclaiming, and entrenched, increasingly-dogmatic churches of belief, as in fact we observe in organizational research.

#### Prefer util

Cummiskey 90 – Professor of Philosophy, Bates (David, Kantian Consequentialism, Ethics 100.3, p 601-2, p 606, jstor, AG)

We must not obscure the issue by characterizing this type of case as the sacrifice of individuals for some abstract "social entity." It is not a question of some persons having to bear the cost for some elusive "overall social good." Instead, the question is whether some persons must bear the inescapable cost for the sake of other persons. Nozick, for example, argues that "to use a person in this way does not sufficiently respect and take account of the fact that he is a separate person, that his is the only life he has."30 Why, however, is this not equally true of all those that we do not save through our failure to act? By emphasizing solely the one who must bear the cost if we act, one fails to sufficiently respect and take account of the many other separate persons, each with only one life, who will bear the cost of our inaction. In such a situation, what would a conscientious Kantian agent, an agent motivated by the unconditional value of rational beings, choose? We have a duty to promote the conditions necessary for the existence of rational beings, but both choosing to act and choosing not to act will cost the life of a rational being. Since the basis of Kant's principle is "rational nature exists as an end-in-itself' (GMM, p. 429), the reasonable solution to such a dilemma involves promoting, insofar as one can, the conditions necessary for rational beings. If I sacrifice some for the sake of other rational beings, I do not use them arbitrarily and I do not deny the unconditional value of rational beings. **Persons** may **have "dignity**, an unconditional and incomparable value" that transcends any market value (GMM, p. 436), **but**, as rational beings, persons **also** have **a fundamental equality which dictates that some must** sometimes **give way for the sake of others.** The formula of the end-in-itself thus does not support the view that we may never force another to bear some cost in order to benefit others. If one focuses on the equal value of all rational beings, then equal consideration dictates that one sacrifice some to save many. [continues] According to Kant, the objective end of moral action is the existence of rational beings. Respect for rational beings requires that, in deciding what to do, one give appropriate practical consideration to the unconditional value of rational beings and to the conditional value of happiness. Since agent-centered constraints require a non-value-based rationale, the most natural interpretation of the demand that one give equal respect to all rational beings lead to a consequentialist normative theory. We have seen that there is no sound Kantian reason for abandoning this natural consequentialist interpretation. In particular, a consequentialist interpretation does not require sacrifices which a Kantian ought to consider unreasonable, and it does not involve doing evil so that good may come of it. It simply requires an uncompromising commitment to the equal value and equal claims of all rational beings and a recognition that, in the moral consideration of conduct, one's own subjective concerns do not have overriding importance.

#### Endorsing single points of view while disregarding bodies of literature is bad – stifles knowledge production and productive debate – causes debaters to fall back on ideology

Ioannidis 5 (John P. A. Ioannidis, professor and chairman at the Department of Hygiene and Epidemiology, University of Ioannina School of Medicine, adjunct professor at Tufts University School of Medicine and Professor of Medicine, and Director of the Stanford Prevention Research Center at Stanford University School of Medicine, Valedictorian of his class at Athens College, first in his class at the University of Athens Medical School, medical residency in internal medicine at Harvard University, fellowship at Tufts University for infectious disease, “Why Most Published Research Findings Are False,” PLoS Medicine, 8-30-2005, http://www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.0020124)

Published research findings are sometimes refuted by subsequent evidence, with ensuing confusion and disappointment. Refutation and controversy is seen across the range of research designs, from clinical trials and traditional epidemiological studies [1–3] to the most modern molecular research [4,5]. There is increasing concern that in modern research, false findings may be the majority or even the vast majority of published research claims [6–8]. However, this should not be surprising. It can be proven that most claimed research findings are false. Here I will examine the key factors that influence this problem and some corollaries thereof. Modeling the Framework for False Positive Findings Several methodologists have pointed out [9–11] that the high rate of nonreplication (lack of confirmation) of research discoveries is a consequence of the convenient, yet ill-founded strategy of claiming conclusive research findings solely on the basis of a single study assessed by formal statistical significance, typically for a p-value less than 0.05. Research is not most appropriately represented and summarized by p-values, but, unfortunately, there is a widespread notion that medical research articles should be interpreted based only on p-values. Research findings are defined here as any relationship reaching formal statistical significance, e.g., effective interventions, informative predictors, risk factors, or associations. “Negative” research is also very useful. “Negative” is actually a misnomer, and the misinterpretation is widespread. However, here we will target relationships that investigators claim exist, rather than null findings. It can be proven that most claimed research findings are false As has been shown previously, the probability that a research finding is indeed true depends on the prior probability of it being true (before doing the study), the statistical power of the study, and the level of statistical significance [10,11]. Consider a 2 × 2 table in which research findings are compared against the gold standard of true relationships in a scientific field. In a research field both true and false hypotheses can be made about the presence of relationships. Let R be the ratio of the number of “true relationships” to “no relationships” among those tested in the field. R is characteristic of the field and can vary a lot depending on whether the field targets highly likely relationships or searches for only one or a few true relationships among thousands and millions of hypotheses that may be postulated. Let us also consider, for computational simplicity, circumscribed fields where either there is only one true relationship (among many that can be hypothesized) or the power is similar to find any of the several existing true relationships. The pre-study probability of a relationship being true is R/(R + 1). The probability of a study finding a true relationship reflects the power 1 - β (one minus the Type II error rate). The probability of claiming a relationship when none truly exists reflects the Type I error rate, α. Assuming that c relationships are being probed in the field, the expected values of the 2 × 2 table are given in Table 1. After a research finding has been claimed based on achieving formal statistical significance, the post-study probability that it is true is the positive predictive value, PPV. The PPV is also the complementary probability of what Wacholder et al. have called the false positive report probability [10]. According to the 2 × 2 table, one gets PPV = (1 - β)R/(R - βR + α). A research finding is thus more likely true than false if (1 - β)R > α. Since usually the vast majority of investigators depend on a = 0.05, this means that a research finding is more likely true than false if (1 - β)R > 0.05. Table 1. Research Findings and True Relationships doi:10.1371/journal.pmed.0020124.t001 What is less well appreciated is that bias and the extent of repeated independent testing by different teams of investigators around the globe may further distort this picture and may lead to even smaller probabilities of the research findings being indeed true. We will try to model these two factors in the context of similar 2 × 2 tables. Bias First, let us define bias as the combination of various design, data, analysis, and presentation factors that tend to produce research findings when they should not be produced. Let u be the proportion of probed analyses that would not have been “research findings,” but nevertheless end up presented and reported as such, because of bias. Bias should not be confused with chance variability that causes some findings to be false by chance even though the study design, data, analysis, and presentation are perfect. Bias can entail manipulation in the analysis or reporting of findings. Selective or distorted reporting is a typical form of such bias. We may assume that u does not depend on whether a true relationship exists or not. This is not an unreasonable assumption, since typically it is impossible to know which relationships are indeed true. In the presence of bias (Table 2), one gets PPV = ([1 - β]R + uβR)/(R + α − βR + u − uα + uβR), and PPV decreases with increasing u, unless 1 − β ≤ α, i.e., 1 − β ≤ 0.05 for most situations. Thus, with increasing bias, the chances that a research finding is true diminish considerably. This is shown for different levels of power and for different pre-study odds in Figure 1. Conversely, true research findings may occasionally be annulled because of reverse bias. For example, with large measurement errors relationships are lost in noise [12], or investigators use data inefficiently or fail to notice statistically significant relationships, or there may be conflicts of interest that tend to “bury” significant findings [13]. There is no good large-scale empirical evidence on how frequently such reverse bias may occur across diverse research fields. However, it is probably fair to say that reverse bias is not as common. Moreover measurement errors and inefficient use of data are probably becoming less frequent problems, since measurement error has decreased with technological advances in the molecular era and investigators are becoming increasingly sophisticated about their data. Regardless, reverse bias may be modeled in the same way as bias above. Also reverse bias should not be confused with chance variability that may lead to missing a true relationship because of chance. Figure 1. PPV (Probability That a Research Finding Is True) as a Function of the Pre-Study Odds for Various Levels of Bias, u Panels correspond to power of 0.20, 0.50, and 0.80. doi:10.1371/journal.pmed.0020124.g001 Table 2. Research Findings and True Relationships in the Presence of Bias doi:10.1371/journal.pmed.0020124.t002 Testing by Several Independent Teams Several independent teams may be addressing the same sets of research questions. As research efforts are globalized, it is practically the rule that several research teams, often dozens of them, may probe the same or similar questions. Unfortunately, in some areas, the prevailing mentality until now has been to focus on isolated discoveries by single teams and interpret research experiments in isolation. An increasing number of questions have at least one study claiming a research finding, and this receives unilateral attention. The probability that at least one study, among several done on the same question, claims a statistically significant research finding is easy to estimate. For n independent studies of equal power, the 2 × 2 table is shown in Table 3: PPV = R(1 − βn)/(R + 1 − [1 − α]n − Rβn) (not considering bias). With increasing number of independent studies, PPV tends to decrease, unless 1 - β < a, i.e., typically 1 − β < 0.05. This is shown for different levels of power and for different pre-study odds in Figure 2. For n studies of different power, the term βn is replaced by the product of the terms βi for i = 1 to n, but inferences are similar. Figure 2. PPV (Probability That a Research Finding Is True) as a Function of the Pre-Study Odds for Various Numbers of Conducted Studies, n Panels correspond to power of 0.20, 0.50, and 0.80. doi:10.1371/journal.pmed.0020124.g002 Table 3. Research Findings and True Relationships in the Presence of Multiple Studies doi:10.1371/journal.pmed.0020124.t003 Corollaries A practical example is shown in Box 1. Based on the above considerations, one may deduce several interesting corollaries about the probability that a research finding is indeed true. Box 1. An Example: Science at Low Pre-Study Odds Let us assume that a team of investigators performs a whole genome association study to test whether any of 100,000 gene polymorphisms are associated with susceptibility to schizophrenia. Based on what we know about the extent of heritability of the disease, it is reasonable to expect that probably around ten gene polymorphisms among those tested would be truly associated with schizophrenia, with relatively similar odds ratios around 1.3 for the ten or so polymorphisms and with a fairly similar power to identify any of them. Then R = 10/100,000 = 10−4, and the pre-study probability for any polymorphism to be associated with schizophrenia is also R/(R + 1) = 10−4. Let us also suppose that the study has 60% power to find an association with an odds ratio of 1.3 at α = 0.05. Then it can be estimated that if a statistically significant association is found with the p-value barely crossing the 0.05 threshold, the post-study probability that this is true increases about 12-fold compared with the pre-study probability, but it is still only 12 × 10−4. Now let us suppose that the investigators manipulate their design, analyses, and reporting so as to make more relationships cross the p = 0.05 threshold even though this would not have been crossed with a perfectly adhered to design and analysis and with perfect comprehensive reporting of the results, strictly according to the original study plan. Such manipulation could be done, for example, with serendipitous inclusion or exclusion of certain patients or controls, post hoc subgroup analyses, investigation of genetic contrasts that were not originally specified, changes in the disease or control definitions, and various combinations of selective or distorted reporting of the results. Commercially available “data mining” packages actually are proud of their ability to yield statistically significant results through data dredging. In the presence of bias with u = 0.10, the post-study probability that a research finding is true is only 4.4 × 10−4. Furthermore, even in the absence of any bias, when ten independent research teams perform similar experiments around the world, if one of them finds a formally statistically significant association, the probability that the research finding is true is only 1.5 × 10−4, hardly any higher than the probability we had before any of this extensive research was undertaken! Corollary 1: The smaller the studies conducted in a scientific field, the less likely the research findings are to be true. Small sample size means smaller power and, for all functions above, the PPV for a true research finding decreases as power decreases towards 1 − β = 0.05. Thus, other factors being equal, research findings are more likely true in scientific fields that undertake large studies, such as randomized controlled trials in cardiology (several thousand subjects randomized) [14] than in scientific fields with small studies, such as most research of molecular predictors (sample sizes 100-fold smaller) [15]. Corollary 2: The smaller the effect sizes in a scientific field, the less likely the research findings are to be true. Power is also related to the effect size. Thus research findings are more likely true in scientific fields with large effects, such as the impact of smoking on cancer or cardiovascular disease (relative risks 3–20), than in scientific fields where postulated effects are small, such as genetic risk factors for multigenetic diseases (relative risks 1.1–1.5) [7]. Modern epidemiology is increasingly obliged to target smaller effect sizes [16]. Consequently, the proportion of true research findings is expected to decrease. In the same line of thinking, if the true effect sizes are very small in a scientific field, this field is likely to be plagued by almost ubiquitous false positive claims. For example, if the majority of true genetic or nutritional determinants of complex diseases confer relative risks less than 1.05, genetic or nutritional epidemiology would be largely utopian endeavors. Corollary 3: The greater the number and the lesser the selection of tested relationships in a scientific field, the less likely the research findings are to be true. As shown above, the post-study probability that a finding is true (PPV) depends a lot on the pre-study odds (R). Thus, research findings are more likely true in confirmatory designs, such as large phase III randomized controlled trials, or meta-analyses thereof, than in hypothesis-generating experiments. Fields considered highly informative and creative given the wealth of the assembled and tested information, such as microarrays and other high-throughput discovery-oriented research [4,8,17], should have extremely low PPV. Corollary 4: The greater the flexibility in designs, definitions, outcomes, and analytical modes in a scientific field, the less likely the research findings are to be true. Flexibility increases the potential for transforming what would be “negative” results into “positive” results, i.e., bias, u. For several research designs, e.g., randomized controlled trials [18–20] or meta-analyses [21,22], there have been efforts to standardize their conduct and reporting. Adherence to common standards is likely to increase the proportion of true findings. The same applies to outcomes. True findings may be more common when outcomes are unequivocal and universally agreed (e.g., death) rather than when multifarious outcomes are devised (e.g., scales for schizophrenia outcomes) [23]. Similarly, fields that use commonly agreed, stereotyped analytical methods (e.g., Kaplan-Meier plots and the log-rank test) [24] may yield a larger proportion of true findings than fields where analytical methods are still under experimentation (e.g., artificial intelligence methods) and only “best” results are reported. Regardless, even in the most stringent research designs, bias seems to be a major problem. For example, there is strong evidence that selective outcome reporting, with manipulation of the outcomes and analyses reported, is a common problem even for randomized trails [25]. Simply abolishing selective publication would not make this problem go away. Corollary 5: The greater the financial and other interests and prejudices in a scientific field, the less likely the research findings are to be true. Conflicts of interest and prejudice may increase bias, u. Conflicts of interest are very common in biomedical research [26], and typically they are inadequately and sparsely reported [26,27]. Prejudice may not necessarily have financial roots. Scientists in a given field may be prejudiced purely because of their belief in a scientific theory or commitment to their own findings. Many otherwise seemingly independent, university-based studies may be conducted for no other reason than to give physicians and researchers qualifications for promotion or tenure. Such nonfinancial conflicts may also lead to distorted reported results and interpretations. Prestigious investigators may suppress via the peer review process the appearance and dissemination of findings that refute their findings, thus condemning their field to perpetuate false dogma. Empirical evidence on expert opinion shows that it is extremely unreliable [28]. Corollary 6: The hotter a scientific field (with more scientific teams involved), the less likely the research findings are to be true. This seemingly paradoxical corollary follows because, as stated above, the PPV of isolated findings decreases when many teams of investigators are involved in the same field. This may explain why we occasionally see major excitement followed rapidly by severe disappointments in fields that draw wide attention. With many teams working on the same field and with massive experimental data being produced, timing is of the essence in beating competition. Thus, each team may prioritize on pursuing and disseminating its most impressive “positive” results. “Negative” results may become attractive for dissemination only if some other team has found a “positive” association on the same question. In that case, it may be attractive to refute a claim made in some prestigious journal. The term Proteus phenomenon has been coined to describe this phenomenon of rapidly alternating extreme research claims and extremely opposite refutations [29]. Empirical evidence suggests that this sequence of extreme opposites is very common in molecular genetics [29]. These corollaries consider each factor separately, but these factors often influence each other. For example, investigators working in fields where true effect sizes are perceived to be small may be more likely to perform large studies than investigators working in fields where true effect sizes are perceived to be large. Or prejudice may prevail in a hot scientific field, further undermining the predictive value of its research findings. Highly prejudiced stakeholders may even create a barrier that aborts efforts at obtaining and disseminating opposing results. Conversely, the fact that a field is hot or has strong invested interests may sometimes promote larger studies and improved standards of research, enhancing the predictive value of its research findings. Or massive discovery-oriented testing may result in such a large yield of significant relationships that investigators have enough to report and search further and thus refrain from data dredging and manipulation. Most Research Findings Are False for Most Research Designs and for Most Fields In the described framework, a PPV exceeding 50% is quite difficult to get. Table 4 provides the results of simulations using the formulas developed for the influence of power, ratio of true to non-true relationships, and bias, for various types of situations that may be characteristic of specific study designs and settings. A finding from a well-conducted, adequately powered randomized controlled trial starting with a 50% pre-study chance that the intervention is effective is eventually true about 85% of the time. A fairly similar performance is expected of a confirmatory meta-analysis of good-quality randomized trials: potential bias probably increases, but power and pre-test chances are higher compared to a single randomized trial. Conversely, a meta-analytic finding from inconclusive studies where pooling is used to “correct” the low power of single studies, is probably false if R ≤ 1:3. Research findings from underpowered, early-phase clinical trials would be true about one in four times, or even less frequently if bias is present. Epidemiological studies of an exploratory nature perform even worse, especially when underpowered, but even well-powered epidemiological studies may have only a one in five chance being true, if R = 1:10. Finally, in discovery-oriented research with massive testing, where tested relationships exceed true ones 1,000-fold (e.g., 30,000 genes tested, of which 30 may be the true culprits) [30,31], PPV for each claimed relationship is extremely low, even with considerable standardization of laboratory and statistical methods, outcomes, and reporting thereof to minimize bias. Table 4. PPV of Research Findings for Various Combinations of Power (1 - ß), Ratio of True to Not-True Relationships (R), and Bias (u) doi:10.1371/journal.pmed.0020124.t004 Claimed Research Findings May Often Be Simply Accurate Measures of the Prevailing Bias As shown, the majority of modern biomedical research is operating in areas with very low pre- and post-study probability for true findings. Let us suppose that in a research field there are no true findings at all to be discovered. History of science teaches us that scientific endeavor has often in the past wasted effort in fields with absolutely no yield of true scientific information, at least based on our current understanding. In such a “null field,” one would ideally expect all observed effect sizes to vary by chance around the null in the absence of bias. The extent that observed findings deviate from what is expected by chance alone would be simply a pure measure of the prevailing bias. For example, let us suppose that no nutrients or dietary patterns are actually important determinants for the risk of developing a specific tumor. Let us also suppose that the scientific literature has examined 60 nutrients and claims all of them to be related to the risk of developing this tumor with relative risks in the range of 1.2 to 1.4 for the comparison of the upper to lower intake tertiles. Then the claimed effect sizes are simply measuring nothing else but the net bias that has been involved in the generation of this scientific literature. Claimed effect sizes are in fact the most accurate estimates of the net bias. It even follows that between “null fields,” the fields that claim stronger effects (often with accompanying claims of medical or public health importance) are simply those that have sustained the worst biases. For fields with very low PPV, the few true relationships would not distort this overall picture much. Even if a few relationships are true, the shape of the distribution of the observed effects would still yield a clear measure of the biases involved in the field. This concept totally reverses the way we view scientific results. Traditionally, investigators have viewed large and highly significant effects with excitement, as signs of important discoveries. Too large and too highly significant effects may actually be more likely to be signs of large bias in most fields of modern research. They should lead investigators to careful critical thinking about what might have gone wrong with their data, analyses, and results. Of course, investigators working in any field are likely to resist accepting that the whole field in which they have spent their careers is a “null field.” However, other lines of evidence, or advances in technology and experimentation, may lead eventually to the dismantling of a scientific field. Obtaining measures of the net bias in one field may also be useful for obtaining insight into what might be the range of bias operating in other fields where similar analytical methods, technologies, and conflicts may be operating. How Can We Improve the Situation? Is it unavoidable that most research findings are false, or can we improve the situation? A major problem is that it is impossible to know with 100% certainty what the truth is in any research question. In this regard, the pure “gold” standard is unattainable. However, there are several approaches to improve the post-study probability. Better powered evidence, e.g., large studies or low-bias meta-analyses, may help, as it comes closer to the unknown “gold” standard. However, large studies may still have biases and these should be acknowledged and avoided. Moreover, large-scale evidence is impossible to obtain for all of the millions and trillions of research questions posed in current research. Large-scale evidence should be targeted for research questions where the pre-study probability is already considerably high, so that a significant research finding will lead to a post-test probability that would be considered quite definitive. Large-scale evidence is also particularly indicated when it can test major concepts rather than narrow, specific questions. A negative finding can then refute not only a specific proposed claim, but a whole field or considerable portion thereof. Selecting the performance of large-scale studies based on narrow-minded criteria, such as the marketing promotion of a specific drug, is largely wasted research. Moreover, one should be cautious that extremely large studies may be more likely to find a formally statistical significant difference for a trivial effect that is not really meaningfully different from the null [32–34]. Second, most research questions are addressed by many teams, and it is misleading to emphasize the statistically significant findings of any single team. What matters is the totality of the evidence. Diminishing bias through enhanced research standards and curtailing of prejudices may also help. However, this may require a change in scientific mentality that might be difficult to achieve. In some research designs, efforts may also be more successful with upfront registration of studies, e.g., randomized trials [35]. Registration would pose a challenge for hypothesis-generating research. Some kind of registration or networking of data collections or investigators within fields may be more feasible than registration of each and every hypothesis-generating experiment. Regardless, even if we do not see a great deal of progress with registration of studies in other fields, the principles of developing and adhering to a protocol could be more widely borrowed from randomized controlled trials. Finally, instead of chasing statistical significance, we should improve our understanding of the range of R values—the pre-study odds—where research efforts operate [10]. Before running an experiment, investigators should consider what they believe the chances are that they are testing a true rather than a non-true relationship. Speculated high R values may sometimes then be ascertained. As described above, whenever ethically acceptable, large studies with minimal bias should be performed on research findings that are considered relatively established, to see how often they are indeed confirmed. I suspect several established “classics” will fail the test [36]. Nevertheless, most new discoveries will continue to stem from hypothesis-generating research with low or very low pre-study odds. We should then acknowledge that statistical significance testing in the report of a single study gives only a partial picture, without knowing how much testing has been done outside the report and in the relevant field at large. Despite a large statistical literature for multiple testing corrections [37], usually it is impossible to decipher how much data dredging by the reporting authors or other research teams has preceded a reported research finding. Even if determining this were feasible, this would not inform us about the pre-study odds. Thus, it is unavoidable that one should make approximate assumptions on how many relationships are expected to be true among those probed across the relevant research fields and research designs. The wider field may yield some guidance for estimating this probability for the isolated research project. Experiences from biases detected in other neighboring fields would also be useful to draw upon. Even though these assumptions would be considerably subjective, they would still be very useful in interpreting research claims and putting them in context.

#### Affirming survival doesn’t devalue life – life is complex and malleable and can be celebrated even when it seems oppressive

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Conclusion

Survival, in the sense Jacques Derrida attributed to the concept in his last interview, not only shifts lines that are too often hardened between biological and political lives: it **opens an ethical space for** reflection **and** action. Critical thinking in the past decade has often taken biopolitics and the politics of life as its objects. It has thus unveiled the way in which individuals and groups, even entire nations, have been treated by powers, the market, or the state, during the colonial period as well as in the contemporary era.

However, through indiscriminate extension, this powerful instrument has lost some of its analytical sharpness and heuristic potentiality. On the one hand, the binary reduction of life to the opposition between nature and history, bare life and qualified life, when systematically applied from philosophical inquiry in sociological or anthropological study, erases much of the complexity and richness of life in society as it is in fact observed. On the other hand, the normative prejudices which underlie the evaluation of the forms of life and of the politics of life, when generalized to an undifferentiated collection of social facts, end up by depriving social agents of legitimacy, voice, and action. The risk is therefore both scholarly and political. It calls for ethical attention.

In fact, the genealogy of this intellectual lineage reminds us that the main founders of these theories expressed tensions and hesitations in their work, which was often more complex, if even sometimes more obscure, than in its reduced and translated form in the humanities and social sciences today. And also biographies, here limited to fragments from South African lives that I have described and analyzed in more detail elsewhere, suggest the necessity of complicating the dualistic models that oppose biological and political lives. Certainly, powers like the market and the state do act sometimes as if human beings could be reduced to “mere life,” but democratic forces, including from within the structure of power, tend to produce alternative strategies that escape this reduction. And people themselves, even under conditions of domination, [End Page 93] manage subtle tactics that transform their physical life into a political instrument or a moral resource or an affective expression.

But let us go one step further: ethnography invites us to reconsider what life is or rather what human beings make of their lives, and reciprocally how their lives permanently question what it is to be human. “The blurring between what is human and what is not human shades into the blurring over what is life and what is not life,” writes Veena Das. In the tracks of Wittgenstein and Cavell, she underscores that the usual manner in which we think of forms of life “not only obscures the mutual absorption of the natural and the social but also emphasizes form at the expense of life.”22 It should be the incessant effort of social scientists to return to this inquiry about life in its multiple forms but also in its everyday expression of the human.

#### Intuitively, it is impossible to understand the psyche of the suicide bomber – but retreats from traditional knowledge production in an appeal to un-falsifiable views of common sense causes neo-conservatism

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Conservatives would have us believe that they hold a monopoly on common sense. Rush Limbaugh, Sean Hannity, Bill O’Reilly, and many other right-wing rabble-rousers regularly portray themselves as defenders of the good, old-fashioned common sense of average Americans against an out-of-touch liberal elite. A growing cadre of ambitious politicians likewise aims to lead a crusade in the name of “commonsense conservatism.” Glenn Beck has even gone so far as to publish a runaway bestseller that explicitly piggybacks on Thomas Paine’s Common Sense to argue against the danger of “out-of-control government” and the forces of organized foolishness that would foist it on the American people. The unanimity is impressive. But it is also ridiculous. The fact is that the right’s appeal to common sense is nonsense. Unfortunately, though, it is a form of nonsense with deep roots in the American past and a very long history of political potency. Whether it continues to prove effective in the future will depend in no small measure on how cogently the rest of America responds. The United States is a nation founded on an egalitarian creed—on the supposedly self-evident (commonsensical?) truths that all men are created equal and that all legitimate government is based on the consent of the governed. In such a nation, public appeals to authority would be much less persuasive than they had been throughout most of human history. Tradition, the divine right of kings, the will of God as interpreted by his designated clerical representatives—in America none of these authorities would benefit from the deference they have typically enjoyed in other times and places. Add in the ever-increasing social pluralism of modern life, and it becomes perfectly understandable why political actors and commentators in the United States would seek to win public disputes by appeal to the only authority still available—the authority of the people and their common sense. Whether such appeals are coherent is another matter. In Common Sense, Thomas Paine famously inaugurated the American tradition of attempting to win contentious public arguments by praising the good judgment of average citizens. When Paine’s incendiary pamphlet first appeared, in January 1776, the colonies were divided about whether to declare their independence, with many colonists still loyal to the crown. Those on both sides of the issue recognized that taking up arms against the King of England demanded justification. Those who favored revolution did so for complicated reasons flowing from the ineptness of George III’s rule, which was increasingly viewed as arbitrary, dictatorial, and contrary to the economic interests of the colonies. A few, including Thomas Jefferson and Paine himself, went further, to supplement their case with abstract philosophical arguments about natural rights to life, liberty, property, and the pursuit of happiness. But regardless of the rationale, it was almost universally acknowledged that proposing insurrection against British rule was a profoundly radical act—one involving a dramatic break from precedent and tradition. And yet Paine chose to portray the case for rebellion as transparently obvious—based, in fact, on nothing more than “simple facts, plain arguments, and common sense.” Today Paine’s tract is thought to have done more than any other piece of writing to foment the American Revolution. Not everyone was convinced by its argument, however. Later that same year, loyalist Lt. Col. James Chalmers penned a scathing polemic against Common Sense titled Plain Truth. In his own pamphlet, Chalmers ridiculed Paine’s presumptuousness in professing to speak for commonly held views in the colonies or good judgment in general. In Chalmers’s view, Paine’s position was a particularly irresponsible example of “quackery,” not an accurate reflection of common sense, which clearly pointed in the opposite direction—toward reconciliation with the English throne. The Revolutionary War thus began with dual acts of excommunication from the ranks of common sense, showing with vivid clarity that the concept was originally devoid of content, merely expressing the desire of one party in a dispute to claim as much popular support as possible for his side. The Paine-Chalmers debate was the first in a seemingly endless series of rancorous clashes in the early republic over contradictory appeals to common sense. By the mid-nineteenth century, these clashes increasingly focused on the issue of slavery and Southern Secession from the Union. Readers of the Northern press during the 1860s were regularly informed that their opposition to the expansion of slavery was commonsensical, that Abraham Lincoln was a font of “homespun common sense,” and that Southerners were “as deaf as madmen” to common sense. Yet the view from the Southern states was, quite naturally, the reverse. In late 1860, for instance, the Charleston Mercury newspaper spoke for many in the South when it editorialized that “no man of common sense” could doubt that “the time for action” against the North had arrived. While politicians and editorialists throughout the rest of the nineteenth century continued to employ the empty rhetoric of common sense, a group of Protestant theologians worked to provide the concept with some content. Drawing on the Scottish tradition of Common Sense philosophy—which asserted that commonly held opinions are our most trustworthy guide to truth—writers connected to the Princeton Theological Seminary naively suggested that spontaneous universal concord on every matter of moral, scientific, and spiritual significance should be possible. Men and women need only open their eyes to apprehend directly the timeless, objective, self-evident truth about all things: God, nature, right and wrong. For these theologians, the very idea of a genuine (as opposed to a spurious) conflict between reason and faith, science and religion—let alone between opposing political views—began to seem inconceivable. They thus tended to trace disagreements to defects in the mind or morals of whomever dissented from prevailing religious, scientific, social, cultural, or political opinion. Maybe the dissenter had succumbed to the sin of pride, which led him astray. Or perhaps he made an innocent error of reasoning, or got caught up in futile metaphysical speculation. And then there was the most ominous possibility—that he was seduced by unbelief or false religion. Whatever the case, the disagreement was assumed to flow not from the intrinsic complexity of either the world or the nature of the mind but rather from an accidental failing rooted in a particular individual or group—a defect that could potentially be removed, thus restoring the inevitability of universal agreement based on self-evident common sense. And yet by the turn of the century, whatever cultural, moral, and religious consensus prevailed in the United States seemed to be collapsing on multiple fronts. The nation’s cities were filled with impoverished immigrants, many of them from non-Protestant (and in the case of Jews, non-Christian) cultures. At the same time, industrialization was transforming American life in unpredictable ways, disrupting small-town life, driving the young to seek their fortunes in those same cities, exposing them to unimaginable moral temptations and objectionable ideas. Meanwhile, the nations schools were beginning to introduce Christian children to disturbing new unbiblical theories about the origins of the human race. For many, the suggestion that human beings evolved from apes sounded both morally monstrous and fundamentally unscientific—a form of demonic speculation wholly divorced from a properly commonsensical study of the natural facts. And then there was the rise of theological liberalism—or “modernism”—in some of the nation’s leading churches, which showed that not even the nation’s Protestant clergy could maintain agreement on the fundamentals of the faith. The political and cultural history of the American twentieth century was shaped in countless ways by two movements that arose in direct reaction to these destabilizing trends: populism in politics and fundamentalism in religion. “Common sense” now became a term of flattery, offering praise for the religious and cultural outlook of Americans who continued to uphold the naïve views defended by the Princeton theologians. These were the views of those who lived in small, homogeneous agricultural communities and who believed their way of life to be under assault by the decadence and corruption of urban economic and political elites. Populist leader William Jennings Bryan used the term “common sense” in this way during the 1890s, and he revived it at the end of his life when, in the Scopes Trial of 1925, he passionately defended the right of fundamentalist Protestants in Tennessee to insulate their children’s commonsense (i.e., literalistic) reading of the Bible from corruption at the hands of overly educated biology teachers, who wished to expose their students to the theory of Darwinian evolution. Though the verdict in favor of creationism was overturned on appeal, Bryan’s effort to defend the simple common sense of average citizens against the godless pretensions of educated elites was a populist time-bomb that would eventually explode in the American public square. That explosion took place in the decade following the Second World War, with the paranoid anti-communist crusade of Joseph McCarthy. The Republican senator from Wisconsin may have overreached in his efforts to root out Communists and thereby turned himself into a one of the most reviled figures in American political history, but he also unintentionally managed to unleash a wildly influential style of politics. In the words of its greatest chronicler, historian Richard Hofstadter, this style of politics is best described as an anti-intellectual “dynamic of dissent” against artists, actors, and academics that proved to be “powerful enough to set the tone of our political life” for years to come. Those who followed in McCarthy’s footsteps have tended to believe that “the plain sense of the common man . . . is an altogether adequate substitute for, if not actually much superior to, formal knowledge and expertise acquired in the schools.” Universities and colleges, by contrast, as well as any institution in which intellectuals exercise influence, are “rotten to the core,” since they fail to pay adequate obeisance to the intuitive wisdom of average Americans. For the McCarthyite tradition, nothing is more morally destructive than the arrogance of the educated, who are “pretentious, conceited, effeminate, and snobbish,” and very likely “immoral, dangerous, and subversive” of common decency no less than of sound judgment. This is the catechism of the muscular “common sense” populism launched by Joe McCarthy. It has inspired the racist rantings of George Wallace and countless other opponents of segregation and black civil rights. It has motivated Rush Limbaugh and the dozens who imitate him on talk radio and cable news, from O’Reilly and Beck to Hannity and Michael Savage. And it has empowered the religious right in its ongoing efforts to turn back the secular drift of American society and culture since the 1960s. All of these sundry projects grew out of McCarthyism, and all of them understand themselves to be championing the common sense of the American people against the machinations of corrupt and decadent elites. The McCarthyite style of invoking common sense entered the American political mainstream at the very moment when McCarthy himself was on the verge of self-destruction. Dwight D. Eisenhower was a moderate Republican, yet he learned something important from the Wisconsin senator about the uses of populist appeals. As president, Eisenhower went out of his way to align himself with “common sense and common decency,” and he delighted in taking potshots at the pretensions of scholars, experts, and “eggheads.” On one memorable occasion, Ike even offered his own definition of an intellectual—a man “who takes more words than are necessary to tell more than he knows.” Plain-spoken average Americans apparently suffered from no such debility. By the time Eisenhower’s vice president (Richard Nixon) ascended to the White House in 1968, the Republican establishment had mastered the art of appealing to common sense as a way to gain grassroots electoral advantage. Nixon’s own vice president, Spiro Agnew, spearheaded GOP efforts to portray Republicans as defenders of common sense against the slothful decadence of the counterculture, while Nixon himself spoke in 1973 of the need to temper America’s idealism (in his condescending words, its “warmhearted impatience”) with “another equally American trait—and that is levelheaded common sense.” With this statement, Nixon employed both forms of commonsense rhetoric: he identified his own position with common sense, presumably relegating his critics to the camp of the innately foolish, and he flattered those Americans who longed to blame the country's problems on a bunch of pampered college students and the elitist snobs who ran the Democratic Party. But it was Ronald Reagan who took the appeal to common sense to a whole new level in American politics—combining with greater skill than anyone before him a rhetoric of populism with the conviction that his agenda was self-evidently right. Reagan honed this synthesis in a series of provocative lectures throughout the late ‘60s and early ‘70s, speaking out, in the name of common sense, against the establishments of both political parties. In his two terms as president, Reagan frequently portrayed his crusades in favor of cutting taxes and increasing spending on national defense as expressions of the common sense of the American majority. This is certainly how he described his presidency in his farewell address to the nation, delivered on January 11, 1989. In these remarks, the president cast the so-called Reagan Revolution as The Great Rediscovery—a “rediscovery of our values and our common sense” after a protracted period of confusion during which the nation lost its way, embracing manifold forms of sophisticated foolishness. In this as well as in other ways, George W. Bush went out of his way to recapture the spirit of Reagan. But he did more than embrace the Reagan legacy. With the help of his advisor Karl Rove, Bush moved beyond Reagan, to portray himself as the authentic voice and sincere champion of the grassroots “dynamic of dissent” that Richard Hofstadter first identified in McCarthyism and that had exploded in power and influence during the intervening decades. For much of the Bush presidency, staunchly conservative talk radio and cable news, right-wing Internet weblogs, and reactionary evangelical pastors uncritically conveyed and defended the administration’s position on foreign and domestic policy, while whipping their audiences into a populist frenzy and channeling it into enthusiastic, almost ecstatic support for the president. Everything about Bush—from his economically libertarian and socially conservative policies to his swaggering gait, mannered Southern drawl, and studied inarticulateness—was intended to convey the message that he was “one of us,” an average American bringing his hard-won common sense to bear on the most challenging problems of our time, many if not all of which could be traced to the influence of the godless liberal elites who “really” run the country from their decadent enclaves in New York and Hollywood. It was in the crucible of the 2004 election campaign that Bush sought to identify his administration’s policies most fully with common sense. Bush set the tone for the election cycle in an early remark about judicial appointments: “We need common-sense judges who understand our rights were derived from God. And those are the kind of judges I intend to put on the bench.” Having established that common sense yields the jurisprudence favored by the religious right, Bush encouraged his party to champion common sense in other areas as well. The plank in the 2004 Republican Party platform that supported permanently banning gay marriage described the 1996 Defense of Marriage Act as a “common-sense law.” Congressional Republicans defended their efforts to renew the USA Patriot Act as a “common-sense approach to improving domestic security.” Meanwhile, the Bush campaign repeatedly attacked his Democratic opponent John Kerry for “opposing common-sense measures like the ban on partial-birth abortion.” And then there was the constant stream of advertisements that repeatedly portrayed Kerry as an elitist snob. Today, with the GOP tearing itself apart over public policy, the right appears to agree about little besides the political necessity of continuing to praise the good, old-fashioned common sense of average Americans and contrasting it to supposedly out-of-touch, over-educated outlook of liberal elites. Indeed, some (like Sarah Palin) have doubled down on the appeal to common sense, placing it at the core of their political ambitions. Whereas Republicans once used populist flattery to get themselves elected so that they could accomplish specific public-policy goals, they’ve now began to treat such flattery as an end in itself, as a form of ideologically vacuous identity politics. Such appeals are unlikely to succeed, at least at the national level—and not only because there simply are no longer enough culturally alienated white people in the United States to catapult a presidential candidate to victory. The deeper reason why the appeal to common sense is liable to become a dead end in the coming years is that research in numerous fields—including artificial intelligence (The Open Mind Common Sense Project, The Cyc Project), linguistics and cognitive science (Ray Jackendoff, Steven Pinker), and psychology (Jonathan Haidt)—has the potential to transform the way we think about common sense, and not in a way that is likely to vindicate the right-wing approach to the topic. Take Haidt’s work in psychology, which identifies several moral ideals—harm/care, fairness/reciprocity, ingroup/loyalty, authority/respect, and purity/sanctity—that appear to be broadly universal across cultures and history. If (as seems likely) scientific research one day demonstrates that this list, or one like it, contains the sum total of human common sense, it will be intellectually interesting but politically irrelevant. Such a finding would imply, after all, that the only individuals who lack common sense are those who show no care for another person, no attachment to fairness, no loyalty to or respect for anything or anyone, and no admiration for purity of any kind. The only people who could be said to lack common sense, in other words, would be certifiable sociopaths. Accordingly, Haidt claims to have found that American liberals and conservatives merely differ on which aspects of common sense they prize most highly—with liberals tending to esteem fairness and care and conservatives leaning toward loyalty, respect, and purity. If this finding ends up being confirmed by further studies, it would show not that one ideological outlook or another is more commonsensical than other, but rather that the content of common sense is somewhat fluid or changeable within certain broad parameters—and that to a considerable extent it mirrors our political opinions and ideological commitments (or vice versa). That Americans disagree with one another on political and cultural matters is not an indication that those on one side or the other are out of touch with common sense. On the contrary, it is a consequence of our freedom—our freedom to disagree, to think for ourselves and to stake out political and ideological positions consonant with our divergent histories and experiences of the world, as well as with the differing natural tendencies and capacities of our minds. As an attempt to gain electoral advantage by demagogically short-circuiting open-ended public debate among equal citizens, the appeal to common sense deserves to be repudiated by all intellectually honest participants in American politics.

#### Extinction outweighs ontology

**Jonas 96** [Hans, Former Alvin Johnson Prof. Phil. At the New School for Social Research & Former Eric Voegelin Visiting Prof. at U. Munich, \*do not agree with gendered language, Mortality and Morality: A Search for the Good after Auschwitz, pg 111-2

With this look ahead at an ethics for the future, we are touching at the same time upon the question of the future of freedom. The unavoidable discussion of this question seems to give rise to misunderstandings. My dire prognosis that not only our material standard of living but also our democratic freedoms would fall victim to the growing pressure of a worldwide ecological crisis, until finally there would remain only some form of tyranny that would try to save the situation, has led to the accusation that I am defending dictatorship as a solution to our problems. I shall ignore here what is a confusion between warning and recommendation. But I have indeed said that such a tyranny would still be better than total ruin; thus, I have ethically accepted it as an alternative. I must now defend this standpoint, which I continue to support, before the court that I myself have created with the main argument of this essay. For are we not contradicting ourselves in prizing physical survival at the price of freedom? Did we not say that freedom was the condition of our capacity for responsibility—and that this capacity was a reason for the survival of humankind? By tolerating tyranny as an alternative to physical annihilation are we not violating the principle we established: that the How of existence must not take precedence over its Why? Yet we can make a terrible concession to the primacy of physical survival in the conviction that the ontological capacity for freedom, inseparable as it is from man’s being, cannot really be extinguished, only temporarily banished from the public realm. This conviction can be supported by experience we are all familiar with. We have seen that even in the most totalitarian societies the urge for freedom on the part of some individuals cannot be extinguished, and this renews our faith in human beings. Given this faith, we have reason to hope that, as long as there are human beings who survive, the image of God will continue to exist along with them and will wait in concealment for its new hour. With that hope—which in this particular case takes precedence over fear—it is permissible, for the sake of physical survival, to accept if need be a temporary absence of freedom in the external affairs of humanity. This is, I want to emphasize, a worst-case scenario, and it is the foremost task of responsibility at this particular moment in world history to prevent it from happening. This is in fact one of the noblest of duties (and at the same time one concerning self-preservation), on the part of the imperative of responsibility to avert future coercion that would lead to lack of freedom by acting freely in the present, thus preserving as much as possible the ability of future generations to assume responsibility. But more than that is involved. At stake is the preservation of the Earth’s entire miracle of creation, of which our human existence is a part and before which man reverently bows, even without philosophical “grounding.” Here too faith may precede and reason follow; it is faith that longs for this preservation of the Earth (fides quaerens intellectum), and reason comes as best it can to faith’s aid with arguments, not knowing or even asking how much depends on its success or failure in determining what action to take. With this confession of faith we come to the end of our essay ontology.

#### Confirmation bias is a link to your methodology

Johnson 12 (Clay Johnson, Presidential Management Fellow and lead programmer for Howard Dean’s presidential campaign, “The Information Diet,” chapter 4, pg. 46-47)

One such nefarious heuristic is called confirmation bias. It’s the psychological hypothesis that once we begin to believe something, we unconsciously begin seeking out information to reinforce that belief, often in the absence of facts. In fact, our biases can grow to be so strong that facts to the contrary will actually strengthen our wrong beliefs. In 2005, Emory University professor Drew Westen and his colleagues recruited 15 self-described strong Democrats and 15 strong Republicans for a sophisticated test. They used a functional magnetic resonance imaging (fMRI) machine to study how partisan voters reacted to negative remarks about their party or candidate. Westen and his colleagues found that when these subjects processed “emotionally threatening information” about their preferred candidates, the parts of the brain associated with reasoning shut down and the parts responsible for emotions flared up.41 Westen’s research indicates that once we grow biased enough, we lose our capacity to change our minds. Following Westen’s study, social scientists Brendan Nyhan and Jason Reifle conducted a new test,42 and discovered what they believe is a “backfire effect.” Nyhan and Reifle provided the subjects with sample articles claiming that President Bush stated that tax cuts would create such economic growth that it would increase government revenues. The same articles included corrective statements from a 2003 Economic Report of the President and various other official sources, claiming that this was implausible. The researchers then showed the students the actual tax revenues as a proportion of GDP declining after Bush’s tax cuts were enacted. The results were fascinating: after reading the article, the conservatives in the study were still more inclined to believe that tax cuts increase revenue as a result of reading the correction. Hearing the truth made conservatives more likely to agree with the misperception. The facts backfired. We already know that things like confirmation bias make us seek out information that we agree with. But it’s also the case that once we’re entrenched in a belief, the facts will not change our minds. Politics is the area in which scientists have studied the psychological causes of bias the most. It’s easy to get people to self-identify, and universities tend to have more of an interest in political science than in other realms of social studies. But you can also see the results of this kind of bias in areas other than politics: talk to a Red Sox fan about whether or not the Yankees are the best team in baseball’s history, and you’ll see strong bias come out. Talk to MacBook owners about the latest version of Windows and you may see the same phenomenon. We’ve likely evolved this way because it’s safer. Forming a heuristic means survival: watching your caveman friend eat some berries and die doesn’t make you want to conduct a test to see if those berries kill people. It makes you want to not eat those berries anymore, and to tell your friends not to eat those berries either. Cognitive scientists Hugo Mercier and Dan Sperber took reasoning and turned it on its head. After all, if all the evidence around reasoning shows that we’re actually pretty bad at using it to make better choices, then maybe that’s not reason’s primary function. In their paper “Why do humans reason?,”43 they argue instead that “reasoning does exactly what can be expected of an argumentative device: Look for arguments that support a given conclusion, and, ceteris paribus, favor conclusions for which arguments can be found.” Mercier and Sperber argue that our minds may have evolved to value persuasion over truth. It certainly is plausible— human beings are social animals, and persuasion is a form of social power. The seeds of opinion can be dangerous things. Once we begin to be persuaded of something, we not only seek out confirmation for that thing, but we also refute fact even in the face of incontrovertible evidence. With confirmation bias and Nyhan and Reifle’s backfire effect in full force, we find ourselves both addicted to more information and vulnerable to misinformation for the sake of our egos.

1nc case proper

#### Suffering is not inevitable – engagement is necessary to celebrate life and withdrawing inward forecloses opportunities to change our surroundings

May 5 – Philosophy Professor at Clemenson University (Todd, “To change the world, to celebrate life,” Philosophy & Social Criticism 2005 Vol 31 No. 5–6 p. 517–531)

There are many ways to conceive the bond between world-changing and life-celebrating. Let me isolate two: one that runs from Merleau-Ponty to Foucault, from the body’s chiasmic relation with the world to the politics of its practices; and the other one running back in the opposite direction. The ontology Merleau-Ponty offers in his late work is one of wonder. Abandoning the sterile philosophical debates about the relation of mind and body, subject and object, about the relation of reason to that which is not reason, or the problem of other minds, his ontology forges a unity of body and world that puts us in immediate contact with all of its aspects. No longer are we to be thought the self-enclosed creatures of the philosophical tradition. We are now in touch with the world, because we are of it. Art, for example, does not appeal solely to our minds; its beauty is not merely a matter of the convergence of our fac- ulties. We are moved by art, often literally moved, because our bodies and the work of art share the same world. As Merleau-Ponty says, ‘I would be at great pains to say where is the painting I am looking at. For I do not look at it as I do a thing; I do not fix it in its place. My gaze wanders in it as in the halos of Being. It is more accurate to say that I see according to it, or with it, than that I see it.’7 It is only because my body is a fold of this world that art can affect me so. But this affection is also a vulnerability. As my look can happen according to a work of art, so it can happen according to a social practice. And even more so in proportion as that social practice and its effects are suffused through the world in which I carry on my life, the world my body navigates throughout the day, every day. I do not have a chance to look according to a painting by Cezanne very often; but I do encounter the effects of normalization as it has filtered through the practices of my employment, of my students’ upbringing, and of my family’s expectations of themselves and one another. The vulnerability of the body, then, is at once its exposure to beauty and its opening to what is intolerable. We might also see things from the other end, starting from politics and ending at the body. I take it that this is what Foucault suggests when he talks about bodies and pleasures at the end of the first volume of the History of Sexuality. If we are a product of our practices and the conception of ourselves and the world that those practices have fostered, so to change our practices is to experiment in new possibilities both for living and, inseparably, for conceiving the world. To experiment in sexu- ality is not to see where the desire that lies at the core of our being may lead us; that is simply the continuation of our oppression by other means. Rather, it is to construct practices where what is at issue is no longer desire but something else, something that might go by the name of bodies and pleasures. In doing so, we not only act differently, we think differently, both about ourselves and about the world those selves are inseparable from. And because these experiments are practices of our bodies, and because our bodies are encrusted in the world, these experiments become not merely acts of political resistance but new folds in the body/ world nexus. To construct new practices is to appeal to aspects or possibilities of the world that have been previously closed to us. It is to offer novel, and perhaps more tolerable, engagements in the chiasm of body and world. Thus we might say of politics what Merleau-Ponty has said of painting, that we see according to it. Here, I take it, is where the idea of freedom in Foucault lies. For Foucault, freedom is not a metaphysical condition. It does not lie in the nature of being human, nor is it a warping, an atomic swerve, in the web of causal relations in which we find ourselves. To seek our freedom in a space apart from our encrustation in the world is not so much to liberate ourselves from its influence as to build our own private prison. Foucault once said: There’s an optimism that consists in saying that things couldn’t be better. My optimism would consist rather in saying that so many things can be changed, fragile as they are, bound up more with circumstances than with necessities, more arbitrary than self-evident, more a matter of complex, but temporary, historical circumstances than with inevitable anthropological constraints . . .8 That is where to discover our freedom. And what happens from there? From the meetings, from the rallies, from the petitions and the teach-ins? What happens next? There is, after all, always a next. If you win this time – end aid to the contras, divest from apartheid South Africa, force debt-forgiveness by techno- logically advanced countries – there is always more to do. There is the de-unionization of workers, there are gay rights, there is Burma, there are the Palestinians, the Tibetans. There will always be Tibetans, even if they aren’t in Tibet, even if they aren’t Asian. But is that the only question: Next? Or is that just the question we focus on? What’s the next move in this campaign, what’s the next campaign? Isn’t there more going on than that? After all, engaging in political organizing is a practice, or a group of practices. It contributes to making you who you are. It’s where the power is, and where your life is, and where the intersection of your life and those of others (many of whom you will never meet, even if it’s for their sake that you’re involved) and the buildings and streets of your town is. This moment when you are seeking to change the world, whether by making a suggestion in a meeting or singing at a rally or marching in silence or asking for a signature on a petition, is not a moment in which you don’t exist. It’s not a moment of yours that you sacrifice for others so that it no longer belongs to you. It remains a moment of your life, sedimenting in you to make you what you will become, emerging out of a past that is yours as well. What will you make of it, this moment? How will you be with others, those others around you who also do not cease to exist when they begin to organize or to protest or to resist? The illusion is to think that this has nothing to do with you. You’ve made a decision to participate in world-changing. Will that be all there is to it? Will it seem to you a simple sacrifice, for this small period of time, of who you are for the sake of others? Are you, for this moment, a political ascetic? Asceticism like that is dangerous.

#  1NR

# 2NC

## Fallibilism

### Impacts

#### Revamping our public debate is ethical

Sokal – physics professor @ NYU – 8 (Alan Sokal, Department of Physics New York University and Department of Mathematics University College London, “What is science and why should we care?” 2008, http://www.physics.nyu.edu/sokal/sense\_about\_science\_PUBL.pdf)

But if I am preoccupied by the relation between belief and evidence, it is not solely for intellectual reasons – not solely because I, like my friend Norm Levitt, am “[a] grumpy old fart who aspire[s] to the sullen joy of having it known that [I] don't suffer fools gladly".33 Rather, my concern that public debate be grounded in the best available evidence is, above all else, ethical .To illustrate the connection I have in mind between epistemology and ethics, let me start with a fanciful example: Suppose that the leader of a militarily powerful country believes, sincerely but erroneously, on the basis of flawed “intelligence", that a smaller country possesses threatening weapons of mass destruction; and suppose further that he launches a preemptive war on that basis, killing tens of thousands of innocent civilians as “collateral damage". Aren't he and his supporters ethically culpable for their epistemic sloppiness? I stress that this example is fanciful. All the available evidence suggests that the Bush and Blair administrations first decided to overthrow Saddam Hussein, and then sought a publicly presentable pretext, using dubious or even forged “intelligence" to “justify" that pretext and to mislead Congress, Parliament and the public into supporting that war. 34 Which brings me to the last, and in my opinion most dangerous, set of adversaries of the evidence-based worldview in the contemporary world: namely, propagandists, public-relations, hacks and spin doctors, along with the politicians and corporations who employ them - in short, all those whose goal is not to analyze honestly the evidence for and against a particular policy, but is simply to manipulate the public into reaching a predetermined conclusion by whatever technique will work, however dishonest or fraudulent.

#### The link turns their impact – their overconfidence in the effect of their discourse creates informational hazards which propagate misunderstandings and distract from rational discussion of more pressing existential risks

Bostrom – philosophy professor and foremost expert on existential risk – 11 (Nick Bostrom, Faculty of Philosophy & Oxford Martin School, Director of the Future of Humanity Institute, and Director of the Programme on the Impacts of Future Technology, Oxford University, recipient of the 2009 Eugene R. Gannon Award for the Continued Pursuit of Human Advancement, Ph.D. Philosophy, London School of Economics, “Information Hazards: A Typology of Potential Harms from Knowledge,” Review of Contemporary Philosophy, Vol. 10 (2011): pp. 44-79, <http://www.nickbostrom.com/information-hazards.pdf>)

5. Risks of irrationality and error¶ Then there are information hazards which, by contrast to those mentioned above, depend on either irrationality or false beliefs. This dependency, of course, does not consign the corresponding hazards to a marginal status.¶ Consider¶ Ideological hazard: An idea might, by entering into an ecology populated by other ideas, interact in ways which, in the context of extant institutional and social structures, produce a harmful outcome, even in the absence of any intention to harm.¶ Suppose that Bob believes that scripture S consists of exclusively literal truths, and that he is committed to doing whatever S says ought to be done. Suppose, furthermore, that S contains the (presumably false) moral statement “Thou shalt drink sea water”, but that Bob is unaware of this. The potential dissemination to Bob of this part of the content of S constitutes an information hazard. The information could harm Bob by inducing him to drink sea water. (Note that the conveyance of true information harms Bob here; in this case, the true information that S calls for drinking sea water.)¶ In the preceding example, the hazard posed by the relevant information is tightly coupled to Bob’s idiosyncratic belief system. It is true that the idea of a nuclear bomb is also a hazard only when coupled with a larger belief system—for instance, beliefs about physics and technology required to bring a bomb into existence. Yet it seems possible and useful to distinguish this kind of instrumental information hazard from ideological information hazard. Ideological hazard, we might say by way of explication, refers to the possibility that that somebody will be misled to head in some bad direction because of the way that some information interacts with false beliefs or incomplete knowledge.¶ That bad ideologies can be extremely dangerous is amply evidenced by twentieth century history. What is less clear is how ideological hazard can best be reduced. Part of the reason why this is a difficult problem is that ideology can also be a force for good. The ideology of the American civil rights movement, for example, helped push back racial discrimination in the U.S. In a wide sense, ideology is perhaps an inevitable part of the human condition, and the problem of distinguishing good from bad ideology may be no easier to solve than the problem of distinguishing good from bad policy: no simple, generally acceptable algorithm exists. Moreover, while radical ideologies may be especially dangerous, they may also—depending on what the status quo is relative to which the alternatives they present are “radical”—be especially appropriate for the situation. If the status quo is slavery and religious prosecution, then it would be a radical ideology that proposes not merely amelioration of the working conditions for slaves and reduction of the penalties for heresy, but complete abolition and unlimited religious freedom.¶ Next we turn to the fact that human beings are not perfectly rational nor do we have perfect self-control. We can be distracted against our will and we can succumb to temptation against our better judgment. Exposure to information can have effects on us other than simply improving the accuracy of our representations of the world.¶ Some information is distracting. It involuntarily draws our attention to some idea or theme when we would prefer to focus our minds elsewhere. An advertizing jingle might loop in our minds and distract us from something we would rather be thinking about. One technique we use to fight temptation is to put something out of our mind; yet information about the tempting object can undermine our effort and make us more likely to cave. A recovering alcoholic can be harmed by exposure to a vivid account of the attributes of Chateau Petrus Pomerol 1990.¶ Distraction and temptation hazards: Information can harm us by distracting us or presenting us with temptation.¶ In most individual cases the damage done by distracting or tempting information is perhaps minor. Yet it is not unreasonable to wonder whether the ready availability of certain kinds of information might potentially cause damage on a wider scale. Perhaps it could be argued that television has an aggregate effect on the contemporary human condition not too dissimilar from that which would be produced by the widespread recreational use of opiate drugs. In the future, even more compellingly presented information and hyper-stimuli might become available and prove enormously addictive; for example, new forms of highly immersive or interactive virtual reality environments. Drug-like effects on our psyches can be produced not only through injection, ingestion, and inhalation but also through the intake of information presented in certain manners to our senses.¶ We can also be harmed by exposure to (the template hazard of) bad role models. Even when we know that a model is bad, and we would prefer not to be influenced by it, prolonged exposure can nevertheless be detrimental because of a kind of social osmosis. Someone who aspires to a good writing style might be well advised to avoid reading too much trash. One who seeks to cultivate a lofty sentiment might want to avoid the company of the mean and petty. And those who hope that their children will become upright citizens should keep them away from delinquent peers.25 Recent studies indicate that subjective well-being and even body mass are significantly influenced by our associates.26 Thus,¶ Role model hazard: We can be corrupted and deformed by exposure to bad role models.¶ One example of this is the “Werther” effect, named after the wave of suicides among young men which swept Europe after the publication in 1774 of Goethe’s novel Die Leiden des jungen Werthers. Several studies have corroborated the existence of such an effect, finding a link between media reporting of high-profile cases and ensuing copycat suicides.27¶ Information risks arise out of our susceptibility to various cognitive biases that can be aggravated by the provision of certain kinds of data. Anchoring bias results from application of the “anchoring and adjustment” heuristic in which people estimate some unknown quantity by first anchoring on some figure that happens to come to mind and then adjusting this preliminary estimate either up or down in an attempt to reflect their total information. This leads to bias when people initially anchor on an irrelevant quantity and then under-adjust in the adjustment phase. In one study subjects were asked to estimate the number of countries in Africa. Before producing their estimate, a wheel of fortune was spun. Subjects who observed a larger number on the wheel tended to give a higher estimate of the number of African countries, despite the transparent irrelevance of the former fact. The extra piece of true information about the number on the fortune wheel diminished the accuracy of geographical judgment.28¶ Many people overestimate their own virtues and abilities. Suppose such a person receives some additional weak cue of their supposed excellence, such as a good score on a trivia quiz. This bit of evidence, which we can suppose to be true and in a very limited way informative, could aggravate their self-overestimation and conceitedness.29¶ Even knowledge of human biases and critical philosophy can lead the unwary deeper into error, and reduce his ability to learn, by arming him with clever arguments with which to rebut objections and rationalize inconvenient facts.30 A special kind of fool is born when intelligence thus outwits itself.¶ Biasing hazard: When we are biased, we can be led further away from the truth by exposure to information that triggers or amplifies our biases.¶ Methodology, such as double-blinding in drug trials, can help reduce the risk of biases entering uninvited into our thinking and acting. For similar precautionary reasons, the gullible often have reason to avoid the highly persuasive. And if one plans to experience transports and ecstasies that will temporarily increase one’s susceptibility to dangerous illusions and impulses, one should first have oneself tied to the mast.¶ Conversely, information could also harm us by reducing our biases insofar as our biases serve some useful purpose. For example, a tendency to overestimate our own abilities might not only make us feel happier and confident; a strong belief in our own ability might also signal competence and lead others to ally with us, promote us, or vote for us. Information that helps us see ourselves for what we really are could deprive us of these benefits. It is also possible that society benefits from excess individual risk-taking in some disciplines; for example if entrepreneurs, inventors, and young academics overestimate their own chances of success. If these occupations have net positive¶ externalities, it could be beneficial that biases and unrealistic expectations of fame, fortune, or high achievement seduce additional entrants into these fields.¶ De-biasing hazard: When our biases have individual or social benefits, harm could result from information that erodes these biases.¶ There is also a wider phenomenon of which role model influence is but a special case. Our brains are constantly reshaped by what we learn and experience. Information gleaned is not simply stored away as inert data packages, as though it were new volumes superadded to some internal bookshelf. Rather, the incoming information interacts complexly with preexisting cognitive structures in ways that are not always easy to characterize in folk psychological terms. New concepts might form; boundaries of extant concepts might change; neuronal wiring patterns are altered; some cortical areas might expand, causing other areas to contract; and so forth. There is a risk that some of these changes will be for the worse.¶ Neuropsychological hazard: Information might have negative effects on our psyches because of the particular ways in which our brains are structured, effects that would not arise in more “idealized” cognitive architectures.¶ Too much knowledge can be bad for some types of memory.31 Perhaps some mental illnesses result from inappropriate cross-talk between cognitive modules designed to operate as more encapsulated units—a kind of undesirable internal information dissemination. A recurring idea in literature and mythology is the “motif of harmful sensation”, where a person suffers mental or physical harm merely by experiencing what should normally be a benign sensation (the myth of Medusa, beliefs about the “evil eye” etc.). A real world example of harmful sensation is photosensitive epilepsy which can be triggered in some sensitive individuals flickering lights or specific geometric patterns.32¶ Irrelevant information can make valuable information harder to find. This fact is used in steganography, the cryptographic technique of hiding secret messages within representations that appear to be of something else so that even the existence of covert text is concealed. For example, some of the pixels in an image file can be subtly modified so as to encode a verbal message in what looks like an ordinary tourist picture. In a similar vein, legal defense teams sometimes conceal incriminating documentation that has been subpoenaed by the prosecution by overwhelming it with such massive amounts of archival material that the relevant documents cannot be located in time for the trial.¶ Information-burying hazard: Irrelevant information can make relevant information harder to find, thereby increasing search costs for agents with limited computational resources.33¶ On a grander scale, an overabundance of informational affordances might deflect our thinking from topics that are more central to us and relatively more worthy our contemplation, so that we shall live, as in T. S. Eliot’s characterization of the modern predicament, “Distracted from distraction by distraction”.34 This kind of possibility leads us to the next section.

### 2nc a2 passivity

#### emphasis on fallibility preserves a practical standpoint for rational truth-seeking

More – strategic philosopher and futurist – 94 (Max More, strategic philosopher and futurist, Ph.D. Philosophy, University of Southern California, degrees in Philosophy, Politics, and Economics, St. Anne’s College, Oxford University, author of the Proactionary Principle and the philosophy of Extropy and Transhumanism, “Pancritical Rationalism: An Extropic Metacontext for Memetic Progress,” 1994, http://www.maxmore.com/pcr.htm)

Pancritical rationalism, uniquely among epistemologies8, requires no authorities. Look at the questions posed by the various epistemological schools. As Bartley notes, they ask "Questions like: How do you know? How do you justify your beliefs? With what do you guarantee your opinions? all beg authoritarian answers whether those answers be: the Bible, the leader, the social class, the nation, the fortuneteller, the Word of God, the intellect, or sense experience." [110] Bartley makes an interesting parallel with political philosophy in which the traditional question has been: "Who should rule?" Or: "What is the supreme political authority?" Despite many political philosophers having been motivated by a desire to overcome authorities, the form of the traditional question has molded thinking so that one authority (such as a monarch) is merely replaced with another (such as elected representatives). Similarly, supposedly anti-authoritarian revolutions in epistemology have succeeded only in replacing old authorities (such as intellectual intuition) with new authorities (such as incorrigible sense data).9¶ PCR shares the comprehensive aims of panrationalism, seeing the scope of reason as unlimited and, with critical rationalism, rejects the demand for rational proofs of our rational standards. Pancritical rationalism goes further in that it also abandons "the demand that everything else except the standards be proved or justified by appealing to the authority of the standards, or by some other means. Nothing gets justified...everything get criticized." [Bartley, 112] Instead of replacing philosophical justification with mere description of existing rational standards, PCR urges the philosophical criticism of standards as the proper task of the rationalist philosopher. Instead of proposing infallible intellectual authorities, we can "build a philosophical program for counteracting intellectual error." [112-13] A little later I'll examine what such a program might involve.¶ When PCR replaces authoritarian justification with unbounded criticism, holding all positions to be criticizable, it means (in Bartley's words): "(1) it is not necessary, in criticism, in order to avoid infinite regress, to declare a dogma that could not be criticized (since it was unjustifiable); (2) it is not necessary to mark off a special class of statements, the justifiers, which did the justifying and criticizing but was not open to criticism; (3) there is not a point in all argument, the terms, which is exempted from criticism; (4) the criticizers the statements in terms of which criticism is conducted are themselves open to review."¶ Crucial to grasping the essence of pancritical rationalism is the realization that, in the past, the concept of criticism has always been fused with the concept of justification. The inevitable result was that criticism was made in an authoritarian manner: "You belief is irrational because it cannot be justified in terms of my absolute standard of justification." Or, in a weaker strategy, the criticism is that a belief conflicts with the rational authority (rather than that it cannot be derived from it). This fusion of criticism with justification caused every supposedly critical philosophy to slam into the dilemma of ultimate commitment. PCR replaces these approaches with what Bartley calls a nonjustificational philosophy of criticism. So, how are we to conceive of a rationalist according to pancritical rationalism? Bartley again:¶ "The new framework permits a rationalist to be characterized as one who is willing to entertain any position and holds all his positions, including his most fundamental standards, goals, and decisions, and his basic philosophical position itself, open to criticism; one who protects nothing from criticism by justifying it irrationally; one who never cuts off an argument by resorting to faith or irrational commitment to justify some belief that has been under severe critical fire; one who is committed, attached, addicted, to no position." [118]¶ Pancritical rationalism is able to maintain its integrity, unlike other forms of rationalism. PCR satisfies its own requirements since it can hold itself open to criticism. Earlier forms of rationalism, being unjustifiable, were internally inconsistent, but PCR is consistent because the practice of holding everything open to criticism can itself be held open to criticism. Perhaps someone could produce an argument demonstrating that some of the critical standards necessarily used by a pancritical rationalist were not only unjustified but uncriticizable, that even the pancritical rationalist must accept something as uncriticizable if circular argument and infinite regress are to be avoided. I doubt that such an argument is possible, and it is up to the critic to make the argument. Until such an argument is forthcoming, pancritical rationalism can be held to be a consistent and coherent conception of rationalism.¶ In saying that I, as a pancritical rationalist, hold everything open to criticism, I do not mean that in practice I hold no views beyond question. For instance, it would seem rather silly for me to declare that I might revise the belief that I am over two years old (to use Bartley's example). I may practically hold that belief beyond criticism in the sense that I do not take seriously the possibility of revision of this belief but I am not logically committed to doing so. I do not have to be dogmatically committed to the belief. Just possibly, a vast expanse of my fundamental worldview is radically mistaken. Perhaps the world is a simulation that was initiated just a month ago and all apparently older memories are implanted. While I do not take this possibility seriously, PCR suggests that I not rule out, in principle, the possibility that future events might give me cause to reevaluate the mutually-supporting set of beliefs that convince me that I cannot be less than two years old. As Bartley notes, "[T]he claim that a rationalist need not commit himself even to argument is no claim that he will not or should not have strong convictions on which he is prepared to act. We can assume or be convinced of the truth of something without being committed to its truth." (p.121) Although Bartley himself never discusses the word "certainty", I think a pancritical rationalist can, with consistency, be certain of some of her beliefs, if by this she means that, given her current understanding of the world, she cannot imagine how a particular belief could ever turn out to be false. Such a contextual certainty involves being thoroughly convinced of a belief, but does not imply that the belief is held dogmatically held to be beyond criticism, beyond revision in principle.¶ It should also be obvious that being rational, according to the PCR model, does not mean that you have no unexamined beliefs, presuppositions, or assumptions, many of which may be false. Rationality has nothing to do with omniscience, infallibility, or total awareness of your beliefs, implicit and explicit. The rational person is one who is genuinely willing to subject their assumptions and presuppositions to criticism once those assumptions come to light. Such an attitude has been felicitously expressed by the world-shaking biologist Charles Darwin:¶ "I had, during many years followed a golden rule, namely, that whenever a published fact, a new observation or thought came across me, which was opposed to my general results, to make a memorandum of it without fail and at once; for I had found by experience that such facts and thoughts were far more apt to escape from the memory than favorable ones. Owing to this habit, very few objections were raised against my views which I had not at least noticed and attempted to answer." [Charles Darwin, Autobiography, p.123]¶ Finally, holding everything open to criticism does not means you hold that there are no true statements or valid arguments, or that for every proposition there exists a successful criticism of it. Such a relativistic view would be precisely what pancritical rationalism is intended to avoid. Relativism and the problem of ultimate commitments are closely tied to one another, and PCR provides an effective response to both.¶ The preeminent logician and philosopher of language, W.V. Quine, in his "Two Dogmas of Empiricism" has argued that we can always maintain a belief, no matter how bizarre, so long as we are willing to make changes at other points in our web of belief. As practicing rationalists, what guides do we have to help ensure that our belief-web evolves towards greater truth rather than towards deepening delusion? I do not have the space here to develop any suggestions in depth; I recommend a study of Robert Nozick's suggested Rules of Rationality from his recent book The Nature of Rationality, and I will briefly mention four methods offered by Bartley of reducing error by criticizing our conjectures:¶ (1) The check of logic: Is the theory in question consistent?¶ (2) The check of sense observation: Is the theory empirically refutable by some sense observation? And if it is, do we know of any refutation of it?¶ (3) The check of scientific theory: Is the theory, whether or not it is in conflict with sense observation, in conflict with any scientific hypotheses?¶ (4) The check of the problem: What problem is the theory intended to solve? Does it do so successfully?¶ The check of the problem is especially useful for theories or conjectures that are not clearly empirically falsifiable, such as ethical and metaphysical ideas, or interpretations of physical data (such as interpretations of the equations of the mathematical structure of quantum mechanics). Even when the nature of a conjecture doesn't admit of empirical checking, we may make headway by determining whether a view truly gets to grips with a problem, or whether it merely displaces the problem. We can ask whether a particular theory solves a problem better than any competing theory, and decide whether it simply multiplies problems. We might also see if it is incompatible with other philosophical theories that appear necessary for solving other problems. Other things being equal, we will favor a theory with high fecundity, i.e., one that raises genuine new problems that had not occurred to us before.

### 2nc a2 science and math bad

#### Tagged on the fly – math is a good metric for policy or something along those lines

Majone – political scientist and emeritus professor @ EUI – 89 (Giandomenico Majone, emeritus professor of public policy analysis at the European University Institute in Florence, and visiting distinguished professor at the EU Center and Graduate School of Public and International Affairs in the University of Pittsburgh, well-known Italian intellectual and EU theorist, formerly held research and teaching positions in renowned European and American academic institutions that include Harvard, Yale, Oxford, Rome University, and the London School of Economics, PhD statistics, University of California, MA Political Economy, University of Padua, MS Mathematics, Carnegie Institute of Technology; “Analysis as Craft,” Chapter 3, in *Evidence, Argument, and Persuasion in the Policy Process*, Yale University Press, 1989, p.62-66, googlebook)

The danger of conceptual pitfalls is made particularly acute by the prevailing metaphysics, according to which the scientific character of a field is assumed to be in direct proportion to the degree of its mathematical formalization. As a result, the analyst is sometimes tempted to use formal tools that exceed the level of bis mathematical or statistical sophistication, and whose range of meaningful applicability he is therefore incapable of assessing. In disciplines with a long intellectual tradition the introduc- tion of new tools usually opens up lines of research that were previously inaccessible. In newer fields of inquiry, on the other hand, we often witness the phenomenon of “new toolism," a disease to which policy analysts seem to be particularly predis- posed. Those affected by this disease “come possessed of and by new tools (various forms of mathematical programming, vast air-battle simulation machine models, queuing models, and the like), and they look earnestly for a problem to which one of these tools might conceivable apply."35 In the preceding pages we have seen how difficult it is to obtain information that is both reliable and relevant. The dif- ficulties are compounded when the data are processed by means of formal techniques and models. For example, are the results derived from a particular model more sensitive to changes in the model and in the methods used to estimate its parameters, or to changes in the data? No general answer to this question seems to be available, and the limited evidence is conflicting. Thus, one econometric study finds that the choice of estimation procedure has more effect on the parameter estimates than the choice of data, while another study concludes that the variations in parameter estimates are generally much greater between dif- ferent sets of data than between different methods of estimation.'10 Regression methods are among the most popular tools of applied social research and policy analysis; yet it is often for- gotten that the meaning of a fitted equation y = b0 + b, x, + b2 x-i + ... + b, x, differs according to whether the x’s represent planned or un- planned ("passive") observations. The same formal data manip- ulations are carried out in both cases, but in the case of passive observations (as in studies correlating income and educational levels, or industrial production and population) it would be quite misleading to interpret the coefficient b, as measuring the effect on y of a unit change in xt. Such an interpretation is justifiable only if the observations come from a planned experiment. As statistician George Box remarks, to find out what happens to a system when you interfere with it you have to interfere with it. not just passively observe it.37 Evidence and Argument The argument is the link connecting data and information with the conclusions of the analysis. As already noted, the structure of the argument typically will be a complex blend of factual statements, interpretations, opinions, and evaluations. Hence, whatever testing is done must rely on a variety of professional standards, corresponding to the dif ferent theories and methods employed; on the plausibility of the results and their robustness with respect to variation in the underlying assumptions and spec- ifications; and on the criteria of adequacy of the client, or the rules of argument prevailing in the relevant forum of debate. The nature of the evidence plays a crucial role here, since a wrong assessment of its strength and fit before it is included in the argument can lead to pitfalls in the drawing of conclusions. Even a style of presentation that is inappropriate for the audi- ence to which the argument is directed can destroy the effec- tiveness of information as evidence. Among the most widespread pitfalls related to evidence and arguments, three deserve special notice. The first originates in the contemporary fashion of using mathematical formalizations on every possible occasion. Two experienced analysts observe that “the analyst often dresses up his results and attempts, either consciously or unconsciously, to hide fairly elementary notions in extreme mathematical and technical language. Though it is probably not possible to condense the most esoteric results of modern mathematics and physics into the language of the news- papers. this is just not true of any applied operations analyses that we have seen.”38 It should be added that an overly formalized style of presen- tation not only obscures the real issues and impedes assessment of the plausibility of the conclusions; it also induces a tendency to accept statistical information or the results of mathematical calculations as facts rather than evidence. The second group of pitfalls is encountered when existing information is taken over for use in an analytic argument. All kinds of distortions occur when data gathered by one organi- zation for broadly defined purposes are used by others to sup- port specific conclusions. Whether such material is of sufficient strength and fit for its function in the argument depends on the mode of its original production; this is often difficult for the analyst to assess and usually impossible for him to change. Finally, questions concerning the acceptable degree of ap- proximation of numerical results or the acceptable level of pre- cision of a set of data acquire their full meaning, for policy analysts at any rate, in connection with the use of evidence. Two other pitfalls should be mentioned in this context: the belief that there is an absolute standard of adequacy, and the rejection of items of information or opinions for which consensus among the experts is lacking. The belief’ in absolute standards overlooks the fact that even the physical sciences simultaneously use several degrees of acceptable levels of precision for their data. For ex- ample, some physical constants are known with an accuracy of 10“M, while the age of the earth can only be estimated with an error of billions of years. Because of the diversity of the data used in a typical analytic study, the acceptable margins of error may have to be even larger than those the economist or the sociologist must realistically accept. This does not mean, of course, that the analyst should not have high standards of quality for his evidence; the pitfall consists in setting the standards so high that they become self-defeating. Conclusions The conclusion of a policy study may be a prediction, a rec- ommendation, an evaluation of ongoing programs, a new pro- posal. or a different perspective on an old problem. Whatever its nature, a conclusion always depends on a number of as- sumptions and methodological choices. A different conceptual- ization of the problem, other tools and models, or a few different judgments made at crucial points of the argument could lead to quite different conclusions. Thus, the contact with the external world of real people and their problems is always indirect and elusive. This is true of any kind of intellectual inquiry, including natural science. But in science the pitfalls encountered when a theory makes contact with reality can be detected, before too much harm is done, by various means—including controlled experiments and working models—that reduce the abruptness of the impact. In policy analysis such tests are seldom, if ever, available. How, then, can one control the validity of a conclusion, make sure that it is not fallacious?

### 2nc a2 perm

#### *Crowd-Out DA* – their *poor reasoning* and *uncritical commitment* to the PLAN overwhelms the discursive effect of the ALT – means the *residual link outweighs*

Dillow – Oxford-educated economist – 12 (Chris Dillow, economist and economics writer at Investors Chronicle, spent 8 years as an economist with one of Japan’s largest banks, graduate of Corpus Christi College, Oxford University, and Manchester University, “Adverse Selection in Political Discourse,” 8-31-2012, http://stumblingandmumbling.typepad.com/stumbling\_and\_mumbling/2012/08/adverse-selection-in-political-discourse.html)

Yet again, the BBC gave airtime this morning to the scaremongering Andrew Green. This raises the point that there is adverse selection in political debate: fanatics are given attention whilst sober, rational voices are overlooked. There are four channels through which this happens:¶ - Fanatics think their beliefs are so important and true that they set up lobbying groups and "thinktanks" to promote them, whilst rational people devote less time and organization to pushing their opinions. Sir Andrew set up MigrationWatch (and Richard Murphy the Tax Justice Network if you want a leftist example - I'm not making a partisan point here) but people with more reasonable, liberal, views confine themselves to occasional articles (though Philippe Legrain wrote a good book in praise of immmigration).¶ - Producers want "good" TV/radio, and this means having a violent debate between people with well-defined positions who can talk in soundbites. Why else does the silly Peter Hitchens get on air? This tends to squeeze out those who take evidence-based positions, as evidence is often messy and nuanced.¶ - People mistake confidence for knowledge, and so give too much credence to the irrationally overconfident.¶ - A tendency has emerged for people to respect strongly-held opinions; this is what gave us the law against religious hatred. This, of course, in the opposite of what should be the case. The fact that someone believes strongly in something is a reason for us to disrespect their belief and to discount it as the product of a fevered, fanatical and irrational mind.¶ What I'm suggesting here is an adjunct to something Mancur Olson said in the 1960s.He pointed out that small numbers of people with large interests would organize themselves better than large numbers with smaller interests. The upshot, he said, was that politics would give too much weight to small vested interests to the detriment of aggregate well-being. I'm saying that what Olson thought true of material interests is also true for beliefs. Small groups with strongly-held beliefs are given more credence and deference than they should have.¶ And this, in turn, implies that the mass media can sometimes undermine rational political discourse rather than promote it.

#### *Sequencing DA* – *rejection* of hasty or egocentric truth-claiming must *precede* action – AND their *stubborn commitment* to the plan based on a small chance of being right replicates *totalitarian thinking*

Williams – citing Popper, Kyoto laureate philosopher and professor @ the London School of Economics – 12 (Liz Williams, citing Sir Karl Popper, philosopher and professor, London School of Economics, recipient of the Kyoto Prize in Arts and Philosophy, Order of the Companions of Honor, Fellow of the Royal Society, Fellow of the British Academy, “Karl Popper, the enemy of certainty, part 5: the craving to be right,” The Guardian, 10-8-2012, <http://www.guardian.co.uk/commentisfree/belief/2012/oct/08/karl-popper-enemy-certainty-craving>)

Karl Popper died in 1994. As I remarked in the initial article in this series, his thought is, in many ways, too close for us to be able to evaluate with the full benefit of hindsight. But what would Popper make of the new(ish) millennium? It is hard not to believe that he would be cast into despair. Knowledge claims (and, more than that, certainty claims) are being made not only throughout political and religious ideologies, but also within alternative therapies, 2012 cults, revisionist approaches to history and a host of other fields. Let's remind ourselves of Popper's actual take on this: he does not suggest that we reject these sorts of claims wholesale, but he does insist that we do not refer to them either in terms of epistemological certainty or in terms of science. They may, one day, achieve full falsifiable rigour, or they may not; they may be useful in other respects, or they may not, but we must be clear about their epistemological status. So let us now take a step back and consider whether Popper has been successful in establishing falsificationism as the methodology du jour. Here, I think, we must acknowledge that he has not. Probabilistic induction remains the methodology of choice, not only among scientific practitioners, but also among those philosophers of science who take more moderate stances of other philosophers of science. Falsificationism also comes under fire from the scientific establishment itself, for instance, in the work of physicists Alan Sokal and Jean Bricmont, who state: "When a theory successfully withstands an attempt at falsification, a scientist will, quite naturally, consider the theory to be partially confirmed and will accord it a greater likelihood or a higher subjective probability… But Popper will have none of this: throughout his life he was a stubborn opponent of any idea of 'confirmation' of a theory, or even of its 'probability' … [yet] the history of science teaches us that scientific theories come to be accepted above all because of their successes." (Sokal and Bricmont, 1997) Both astrology and astronomy make incorrect predictions, Sokal and Bricmont argue, and falsificationism does not differentiate between them. But this claim is disputed by writers such as David Miller, who bring us full circle by pointing out that astronomy contains the parameters for its own falsifiability, whereas astrology does not. What of Popper's political thought – that body of work so closely intertwined in Popper's writings with epistemology and scientific enquiry? His views on tolerance and anti-totalitarianism do now look like common sense to many. Political and social tolerance clearly leads to a paradox: summed up in the issue of where one person's fist ends and another's nose begins. Popper was a champion of liberalism throughout his life. He argues that tolerance means that we may eventually fail to tolerate intolerance. We can contain intolerant political philosophies, he says, "… as long as we can counter them by rational argument and keep them in check by public opinion." However: "We should therefore claim, in the name of tolerance, the right not to tolerate the intolerant. We should claim that any movement preaching intolerance places itself outside the law, and we should consider incitement to intolerance and persecution as criminal." These are opinions which are highly relevant to today's relativistic, pluralistic societies, in which political and cultural boundary settings are still of necessity emergent, imprecise and fluid. Here, epistemological claims of certainty cannot be applied and Popper's early and tragic encounters with the results of those claims – on both sides of the political spectrum – surely informed his commitment to as great a degree of mutual tolerance as possible. Nor is this incompatible with his commitment to falsifiability as a standard for scientific rigour: fallibilism underlies both the knowledge claims of science and those of politics. "The old scientific ideal of episteme – of absolutely certain, demonstrable knowledge – has proved to be an idol. The demand for scientific objectivity makes it inevitable that every scientific statement must remain tentative for ever. It may be corroborated, but every corroboration is relative to other statements which, again, are tentative. Only in our subjective experiences of conviction, in our subjective faith can we be 'absolutely certain'." The "craving to be right", that hostility to tolerance which is found throughout all human inquiry, is in Popper's eyes the basis for totalitarian thought; only once that is rejected can we get down to the business of testing truth claims, and only then can we be honest about what we do and do not know.

### 2nc fw

#### Only our framework acknowledges the nearsightedness of current practices and strives to incorporate subtlety into policy analysis

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As already noted, in the natural sciences detailed discussions of different kinds of pitfalls can, to a large extent, be dispensed with because of the stock of practical knowledge that scientists have accumulated from long and successful experience. In policy analysis, however, direct verification of conclusions is seldom possible, while professional mechanisms for controlling the quality of analyses are still in an embryonic stage—the approach is too new for a widely shared tradition of critical thought to have developed. Also, policy analysts have different disciplinary backgrounds, while students acquiring specialized training in undergraduate and graduate programs of public policy are exposed to academic curricula that vary from school to school and represent tentative compromises among different intellectual traditions. Most of the technical tools that the budding analyst is now required to learn have been developed by other disciplines, and textbook treatments tend to emphasize only those aspects that appear to have immediate practical usefulness. But concepts and techniques removed from their disciplinary matrix tend to become stereotypes, and their limitations are not easily perceived by people interested only in immediate applications. Such are the roots of some common pitfalls of analysis that B. O. Koopman has labeled “linearitis” (the erroneous belief that everything is linear), “maximitis" (the belief that the only or main purpose of analysis is to maximize something), and “mechanitis” (blind faith in the power of the computer and other mechanical aids). For the same reasons, all the subtlety of statistical reasoning is often lost in ritualistic and almost meaningless applications of hypothesis testing and significance levels. Hence, a systematic study of pitfalls should become an important part of the training of policy analysts and public managers. As the philosopher of science Jerry Ravetz writes: “A recognition and systematic use of the phenomenon of pitfalls might be very effective in the teaching of those simple but essential craft skills which are involved in scientific, scholarly, or administrative work. An exposition of standard techniques in terms of the pitfalls they are designed to circumvent, with examples, could go far to make them meaningful and obviously worth mastering.”'5 In fact, a number of standard works in the early literature of systems and policy analysis include fairly extensive treatment of pitfalls, and some of these discussions have attained the status of minor classics of the discipline.26 T his tradition is continued in a book edited by myself and Edward S. Quade, in which a number of experienced analysts survey the entire spectrum of possible pitfalls of analysis, from problem formulation to implementation.” Here it is not possible to do more than to treat selectively some of the more common types of pitfalls. It will be convenient to organize the discussion under four headings that closely correspond to the four components of the analyst's work which have been identified above: data and information; tools and methods; evidence and argument; and conclusions.

# 1NR

## Case

### 1nr affirmation of survival

#### To refuse to solve suffering is also to abandon the celebration of life.

May 5—PhD from Penn State University in 1989, and has been at Clemson since 1991

(Todd May, “To change the world, to celebrate life,” Philosophy & Social Criticism 2005 Vol 31 nos 5–6 pp. 517–531nex)

. IX And what happens from there? From the meetings, from the rallies, from the petitions and the teach-ins? What happens next? There is, after all, always a next. If you win this time – end aid to the contras, divest from apartheid South Africa, force debt-forgiveness by technologically advanced countries – there is always more to do. There is the de-unionization of workers, there are gay rights, there is Burma, there are the Palestinians, the Tibetans. There will always be Tibetans, even if they aren’t in Tibet, even if they aren’t Asian. But is that the only question: Next? Or is that just the question we focus on? What’s the next move in this campaign, what’s the next campaign? Isn’t there more going on than that? After all, engaging in political organizing is a practice, or a group of practices. It contributes to making you who you are. It’s where the power is, and where your life is, and where the intersection of your life and those of others (many of whom you will never meet, even if it’s for their sake that you’re involved) and the buildings and streets of your town is. This moment when you are seeking to change the world, whether by making a suggestion in a meeting or singing at a rally or marching in silence or asking for a signature on a petition, is not a moment in which you don’t exist. It’s not a moment of yours that you sacriﬁce for others so that it no longer belongs to you. It remains a moment of your life, sedimenting in you to make you what you will become, emerging out of a past that is yours as well. What will you make of it, this moment? How will you be with others, those others around you who also do not cease to exist when they begin to organize or to protest or to resist? The illusion is to think that this has nothing to do with you. You’ve made a decision to participate in world-changing. Will that be all there is to it? Will it seem to you a simple sacriﬁce, for this small period of time, of who you are for the sake of others? Are you, for this moment, a political ascetic? Asceticism like that is dangerous. X Freedom lies not in our distance from the world but in the historically fragile and contingent ways we are folded into it, just as we ourselves are folds of it. If we take Merleau-Ponty’s Being not as a rigid foundation or a truth behind appearances but as the historical folding and refolding of a univocity, then our freedom lies in the possibility of other foldings. Merleau-Ponty is not insensitive to this point. His elusive concept of the invisible seems to gesture in this direction. Of painting, he writes: the proper essence of the visible is to have a layer of invisibility in the strict sense, which it makes present as a certain absence . . . There is that which reaches the eye directly, the frontal properties of the visible; but there is also that which reaches it from below . . . and that which reaches it from above . . . where it no longer participates in the heaviness of origins but in free accomplishments. 9 Elsewhere, in The Visible and the Invisible, he says: if . . . the surface of the visible, is doubled up over its whole extension with an invisible reserve; and if, ﬁnally, in our ﬂesh as the ﬂesh of things, the actual, empirical, ontic visible, by a sort of folding back, invagination, or padding, exhibits a visibility, a possibility that is not the shadow of the actual but its principle . . . an interior horizon and an exterior horizon between which the actual visible is a partitioning and which, nonetheless, open indeﬁnitely only upon other visibles . . . 10 What are we to make of these references? We can, to be sure, see the hand of Heidegger in them. But we may also, and for present purposes more relevantly, see an intersection with Foucault’s work on freedom. There is an ontology of freedom at work here, one that situates freedom not in the private reserve of an individual but in the unﬁnished character of any historical situation. There is more to our historical juncture, as there is to a painting, than appears to us on the surface of its visibility. The trick is to recognize this, and to take advantage of it, not only with our thoughts but with our lives. And that is why, in the end, there can be no such thing as a sad revolutionary. To seek to change the world is to offer a new form of life-celebration. It is to articulate a fresh way of being, which is at once a way of seeing, thinking, acting, and being acted upon. It is to fold Being once again upon itself, this time at a new point, to see what that might yield. There is, as Foucault often reminds us, no guarantee that this fold will not itself turn out to contain the intolerable. In a complex world with which we are inescapably entwined, a world we cannot view from above or outside, there is no certainty about the results of our experiments. Our politics are constructed from the same vulnerability that is the stuff of our art and our daily practices. But to refuse to experiment is to resign oneself to the intolerable; it is to abandon both the struggle to change the world and the opportunity to celebrate living within it. And to seek one aspect without the other – life-celebration without world-changing, world-changing without life-celebration – is to refuse to acknowledge the chiasm of body and world that is the wellspring of both. If we are to celebrate our lives, if we are to change our world, then perhaps the best place to begin to think is our bodies, which are the openings to celebration and to change, and perhaps the point at which the war within us that I spoke of earlier can be both waged and resolved. That is the fragile beauty that, in their different ways, both MerleauPonty and Foucault have placed before us. The question before us is whether, in our lives and in our politics, we can be worthy of it.

#### Extinction doesn’t make you stronger – their arguments don’t apply when discussing extinction level impacts

Wrisley, No Date [George, Ph.D., Adjunct Instructor at George Washington University; “Nietzsche and Suffering—a Choice of Attitudes and Ideals,” draft of paper presented in Nov 2004, http://www.georgewrisley.com/Nietzsche%20and%20Suffering.doc]

That harsh conditions somehow better both the individual and the species is surely only true to a degree. For example, when Nietzsche writes, “Out of life’s school of war: What does not destroy me, makes me stronger”, this is clearly not universally true. There are two constraints: first, there is a point of diminishing returns. If I am shot in the head, survive, but lose my memory, many motor skills, and the ability to fully grasp what is happening around me, I am not destroyed but I am surely not stronger because of it (though this will possibly depend on the second constraint). Conversely, if my cat scratches my hand by accident, the “suffering” I thereby experience is not going to the kind from which I can become stronger. So, there are low and high degrees of suffering that seem to be ruled out. Second, even if what I suffer is only the loss of a pet, my job, or a hand, I am not automatically made stronger by living through it. There are times where all we can do is hold on as best we can, hoping that the pain will stop; in such cases we do not overcome the suffering, but just do our best to ride it out. Whether I come out stronger depends on what my attitudes towards suffering are and whether I can use those attitudes to see the suffering as an opportunity for growth and strengthening, and then whether I have the strength to carry out the growth. Concerning the strengthening of the species through harsh conditions, we can also imagine limiting cases. Conditions of great plague or natural disaster in which our strength of will and body are of no use are not going to be conditions under which the species is strengthened. Further, it is not entirely clear why we should think murder and theft strengthen the species, as Nietzsche seems to claim.

### 1nr a2 biological death

#### No thought after death – also near death experiences don’t count

**Harrison 97 –** Paul, freelance writer, consultant on population, environment and development, M.A. in European literature languages from Cambridge University, M.A. in sociology from the London School of Economics, and Ph.D. in environmental science from Cambridge University, (“The Afterlife: false promises, real problems,” Scientific Pantheism, March 13, Available Online at <http://members.aol.com/pantheism0/afterlif.htm>,)

Other than scripture, there is no reliable evidence for survival after death. There is a growing popular literature about near-death experiences, but these are about near-death - not actual death. People whose physical functions have stopped for a short time are not truly, irrevocably dead. Their experiences are based on processes inside their own oxygen-starved brain, and the accounts they give are untestable against hard evidence. No-one has ever truly returned from the dead to tell us what it's like. No-one has been dead for a week or a month or a year and come back to tell the tale. We are told that many accounts agree with each other and with texts like the Tibetan Book of the Dead. But we are not told of the accounts that do not agree. Nor are we reminded that in Judaism and early Christianity there is no heaven after death, no journey of the soul through a tunnel into light - only a sleep until the resurrection of the body. Death is real death. All our direct experience tells us that souls die with bodies. As Job says: A man dies, and is laid low; man breathes his last, and where is he? As waters fail from a lake, and a river wastes away and dries up, so man lies down and rises not again. [Job, 14:7-12] Neurology suggests that our minds are manifestations of our bodies. When parts of the brain are damaged or removed in operations, various functions disappear and our mental capacities change. The simplest explanation is that the soul is not separate: it is a function of the body. When all our brain functions cease, the available evidence suggests that all our individual consciousness and mind activities cease. Of course no-one could completely exclude the possibility that part of our minds may outlive our bodies: absence of evidence is not evidence of absence. But the onus is on those who claim survival after death to prove it conclusively. No-one has.

### 1nr a2 util bad

#### Moral tunnel vision is complicit with evil

**Issac 2**—Professor of Political Science at Indiana-Bloomington, Director of the Center for the Study of Democracy and Public Life, PhD from Yale (Jeffery C., Dissent Magazine, Vol. 49, Iss. 2, “Ends, Means, and Politics,” p. Proquest)

As a result, the most important political questions are simply not asked. It is assumed that U.S. military intervention is an act of "aggression," but no consideration is given to the aggression to which intervention is a response. The status quo ante in Afghanistan is not, as peace activists would have it, peace, but rather terrorist violence abetted by a regime--the Taliban--that rose to power through brutality and repression. This requires us to ask a question that most "peace" activists would prefer not to ask: What should be done to respond to the violence of a Saddam Hussein, or a Milosevic, or a Taliban regime? What means are likely to stop violence and bring criminals to justice? Calls for diplomacy and international law are well intended and important; they implicate a decent and civilized ethic of global order. But they are also vague and empty, because they are not accompanied by any account of how diplomacy or international law can work effectively to address the problem at hand. The campus left offers no such account. To do so would require it to contemplate tragic choices in which moral goodness is of limited utility. Here what matters is not purity of intention but the intelligent exercise of power. Power is not a dirty word or an unfortunate feature of the world. It is the core of politics. Power is the ability to effect outcomes in the world. Politics, in large part, involves contests over the distribution and use of power. To accomplish anything in the political world, one must attend to the means that are necessary to bring it about. And to develop such means is to develop, and to exercise, power. To say this is not to say that power is beyond morality. It is to say that power is not reducible to morality. As writers such as Niccolo Machiavelli, Max Weber, Reinhold Niebuhr, and Hannah Arendt have taught, an unyielding concern with moral goodness **undercuts political responsibility**. The concern may be morally laudable, reflecting a kind of personal integrity, but it suffers from three fatal flaws: (1) It fails to see that the purity of one's intention does not ensure the achievement of what one intends. Abjuring violence or refusing to make common cause with morally compromised parties may seem like the right thing; but if such tactics entail impotence, then it is hard to view them as serving any moral good beyond the clean conscience of their supporters; (2) it fails to see that in a world of real violence and injustice, moral purity is not simply a form of powerlessness; it is often a form of **complicity in injustice**. This is why, from the standpoint of politics--as opposed to religion--pacifism is always a potentially immoral stand. In categorically repudiating violence, it refuses in principle to oppose certain violent injustices with any effect; and (3) it fails to see that **politics is as much about unintended consequences as it is about intentions**; it is the effects of action, rather than the motives of action, that is most significant. Just as the alignment with "good" may engender impotence, it is often the pursuit of "good" that generates evil. This is the lesson of communism in the twentieth century: it is not enough that one's goals be sincere or idealistic; it is equally important, always, to ask about the effects of pursuing these goals and to judge these effects in pragmatic and historically contextualized ways. Moral absolutism inhibits this judgment. It alienates those who are not true believers. It promotes arrogance. And it undermines political effectiveness.