What governments know, don't know and don't want to know
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   I.   Introduction: Legitimation problems of knowledge, non-knowledge and
       secrecy

The emergence of the modern state is largely due to the organization of knowledge.
Two functional needs appear to be the basis: the recruitment of soldiers and the
regular levying of taxes (Gottschalk in Collin/Horstmann, 150). Both moVoirtivated
the collection of information about the income and wealth and about the health and
demographic profile of subjects in a particular area.

This constellation of interests between rulers and their subjects has remained basically
the same ever since: governments want to collect information about their subjects
which they are not unconditionally willing to provide unless it is in their obvious
interest. This interest is apparent whenever the information thus obtained helps to
achieve objectives that are beneficial to a collective and could not be achieved by its
members individually. Knowledge, in a political context, is a means of power. It is a
necessary condition to enable binding decisions even against the will of some
(Weber's definition of power) and to achieve objectives that are beyond the reach of
individuals. Because of this instrumentality of knowledge to governments, therefore,
knowledge is at the same time an object of conflict. The control of access to certain
types of knowledge, the ability to manipulate it, including the ability to conceal it,
reveals the inherent ideological instrumentality of knowledge. Thus, knowledge as a
means of power has two sides: it is instrumental in solving problems, and it is
instrumental in providing legitimacy for political decisions.

Max Weber famously analyzed the immediate connection between the organization of
knowledge and the emergence of the modern bureaucratic administration. The
superiority of the latter over all other types of political organization resides in the
creation of the civil servant (Fachbeamter), the specialist trained over a longer period
(originally mostly in law), highly qualified and remunerated on a regular basis to
create loyalty and prevent corruption. The bureaucratic administration which replaces
the absolutist form of self-government concentrates knowledge in the hands of a
specialized civil service. Until the middle of the 20th century states mobilized their
requisite knowledge by recruiting academically trained individuals and placed them in
particular departmentalized administrations where they acquired their specialized

knowledge about their area of responsibility (Fachverstand). Only the increasing specialization has rendered this diffuse strategy ineffective and led to a gradual replacement of administrative knowledge by scientific knowledge (Sachverstand). This is in line with an increasing dependence of governments on outside knowledge, generated either in scientific institutions or public and private think tanks.

The legitimating function of knowledge for political rule (Herrschaft) refers to its rationality rather than to a particular kind of knowledge. Thus, Macchiavelli advises the Prince that his rule rests equally on power and rationality. Political decisions have to be legitimated by reasoning and supporting evidence. Weber's bureaucratic rule rests on both, its rational procedures and on the knowledge acquired through administration (Dienstwissen), not necessarily scientific knowledge. Only with the transition from the administrative knowledge held in government departments to the knowledge held in research institutions and think tanks outside the departments is this knowledge increasingly scientific knowledge. This transition is forced by the expansion of tasks assumed by the modern state and the requisite knowledge needed to tackle them (Transition from the liberal nightwatch to the welfare and lately to the ‚providing' state (Gewährleistungsstaat – Schuppert 2005).

Increasing dependency on *scientific* knowledge for problem solving and legitimating purposes implies that governments become dependent on the logic and the dynamics of scientific knowledge production. While knowledge produced and applied in government bureaucracies can be fairly well controlled, scientific knowledge is produced by disciplinary communities outside of government. They determine its objectives, its quality, as well as the research agenda. Typically, scientific knowledge is contested even by scientists themselves as critique and the production of innovative knowledge are guiding principles of science. *Thus, the dependence of governments on scientific knowledge for legitimation is more fragile and tenuous.*

Worse yet, it is a feature of scientific knowledge that it always refers to open research questions, i.e. that it generates knowledge about what is not yet known but could be known in principle. And the scientific mentality has brought about the attitude of what can be called ‚generalized reflexive skepticism', the notion that there could always be systematic explanations for phenomena or risks we do not yet know. In other words: unknown non-knowledge.

The paradox, well understood by now as a feature of the so-called knowledge society, is that the search for reliable knowledge as a basis of political decisions and their

legitimation has actually produced the opposite effect. The more knowledge is available the more open questions arise, the more apparent insecure and unknown knowledge becomes. The demand on the part of the general public and policymakers for certain knowledge, i.e. the generalized expectation that science will answer, in principle (Weber), all problems has driven scientific experts to offer advice that is increasingly characterized by incertitude and lack of knowledge. Political legitimacy that is expected from the certainty of knowledge is threatened by conflicts that are carried out by experts and counter-experts with reference to knowledge claims. *Thus, the relationship between scientific knowledge and political legitimacy is ambivalent rather than unidirectional.*

The instrumental importance of knowledge for governments or its ambivalent value for political legitimacy continuously raises the question: when does such knowledge become a threat to political legitimacy. It is common practice, therefore, that governments try to keep knowledge they deem threatening to their interests secret, or – a milder form of not wanting to know - they ignore available knowledge (e.g. resisting advice). Keeping knowledge, especially scientific knowledge secret, is an almost impossible task. Too many people are involved in the production and in the communication of knowledge to actually control this process, at least in the longer run. Another obstacle is the principle of the free flow of knowledge that is a deeply entrenched value at least in democratic societies. When governments are being caught withholding knowledge, especially such that is relevant to public health as in the case of BSE in the UK or the threatening pandemic of bird flue in Germany, the damage to their trustworthiness and thus to their legitimacy can be considerable. The intensity of distrust on the part of the public, echoed by the media, caused by such incidents of attempted secrecy directly reflects the legitimating value of knowledge and corroborates politicians' concern about the use of knowledge.

Although the call for transparency and freedom of information is very much part of mass democracies (note the fervor of Wikileaks) complete transparency and public access to all information is not without its drawbacks. Negotiations between governments of warring countries like Israel and Palestine, between governments and opposition movements like the South African apartheid government and the ANC, can only succeed, if mutual trust is built among the moderates and information is kept from the radicals until a solution has been found.

More relevant than keeping knowledge secret is the systematic avoidance of knowledge. It is a common experience in advisory panels and committees that their advice is disregarded if not altogether pigeonholed. Depending on the political context there is knowledge that governments do not want to know because it runs counter to their interests or it is in conflict with their ideological convictions. There is a clear difference between keeping information secret for fear of public reactions and ignoring information for lack of conviction and because of bias and prejudice.

In the following I will, first, provide some more details about what governments want to know and how they try to get it, then I will, likewise, give examples of systematic causes for governments' not knowing, and finally look at reasons for governments ignoring or suppressing knowledge. The objective is not to add more cases to what is known already but to explore the intricate relationship between knowledge and political power or legitimacy in modern mass democracies.

II. The co-evolution of state functions and knowledge production

Although the exigencies of obtaining knowledge are very similar for modern states the institutional solutions that have been invented to achieve this differ from country to country. The relevant dynamics is the shift – in the course of the 19th century – to a state administration providing technical standardization, geodetic and geological surveys, transportation and communication infrastructure, public health, and agricultural innovation. Later on new areas were added such as the provision of energy and environmental protection. This pertains at least to the European development. I focus on the German system of the so-called 'Ressortforschungseinrichtungen' (research laboratories attached to particular government departments and subject to their direction). A comparative case can be made for the National Laboratories in the US. While the German institutes are legally funded and overseen by their respective government departments which gives them the status of agencies ('nachgeordnete Behörden') the US laboratories, while also overseen by departments and federally funded, are managed and operated (and staffed) by private corporations and academic universities under contract to the respective department. The system of the US national laboratories (notably those of the Department of Energy) grew out of the war effort that had started with work on radar and the atomic bomb. The crucial differences between the German and the US laboratories apart from their historical origin is that the German ones do research (and

provide expert advice!) directly for government activities and can be ordered to do so. Some installations even have governmental ('hoheitliche') functions. The closest parallel to the German institutions is a facility like the US Geological Survey (an independent research organization belonging to the Department of the Interior) which was founded 1879 in response to the government's needs to chart the land and new territories. The US labs are more distant from direct action of the state and closer to industrial or academic research. In other words: they reflect more the development of science and the government's use of it (for defense, energy etc.) rather than the actual needs arising from expanding state functions.

The proximate equivalent to the US laboratories are the German big science labs that were set up after the war, first to establish the research capacity in nuclear energy, later on in other fields of high technology, notably computer science and biotechnology. This new type of research institution is clearly a post- World War II phenomenon when governments set up large scale facilities usually organized around very expensive instrumentation with the expectation that basic research would lead to innovation and economic growth. The US experience with the Manhattan Project had changed the government's relationship to science in the sense that now it was believed that basic science was a precondition to the development of sophisticated weaponry and industrial high technology. This paradigm (V. Bush's 'endless frontier') dominated science policy thinking even in Europe for decades and marks a significant departure from the pre-war approach when governments engaged research directly to pursue tasks posed by government activities and perceived to arise in the future.

In the meantime the institutional variety indicating the availability of knowledge has yet grown again dramatically. One development that also indicates the knowledge needs of governments but differs institutionally from the establishment of laboratories is the rapid expansion of advisory committees, panels, councils etc. Over the last four to five decades governments have taken recourse to scientific expertise at an unprecedented scale and speed. Differences between countries mostly pertain to the degree of formal institutionalization and the relation to knowledge accumulated and organized within ministries or departments. In one sense this development indicates a 'scientification of policymaking': rather than organizing their own research capacity governments increasingly refer to members of external institutions of knowledge

production (often professors at universities) who serve as *experts* on advisory committees but remain attached to their home institutions. In some cases, as in Germany, government's need of expertise has driven it to outsource expert reports and legislative work to commercial consulting firms such as McKinsey while at the same time reducing their own staff und thereby losing in-house knowledge. The result is an increasing dependence on such sources of expertise, the danger that it is interested expertise, and that this kind of advice creates legitimacy problems. In other words: within the scientification of politics that has begun in the 19th century with the establishment of a government science capacity in the administrative bureaucracy one can observe a new stage of development: i.e. essentially the shift from the previous arrangement to an advice and expertise focused one that is either associated with academic institutions or with private (commercial) forms of knowledge production.[1] A particularly pertinent indication of this development is the discussion in Germany about the evaluation of the government research laboratories. The Science Council advocates an orientation of the institutes to 'scientific excellence' thereby applying academic standards and – to the dismay of some scientists working in them – ignoring the specific functions of providing service and advice to government (cf. Wissenschaftsrat XX - expand). With this the 'academic culture' becomes the orienting framework for the government's knowledge production.

III. Structures of Knowledge Production and their Blind-Spots - Non Knowledge
At least three sources of ignorance or non-knowledge are of interest here, one is institutional, a second is procedural, a third resides in the dynamics of knowledge production proper.
The connection between the tasks of governments and the knowledge production facilities - government labs or similar – has a dark side. The structure of departments and research facilities acts like a sensory system. That means it perceives the world with the structure it has developed to cope with the world. At the same time it has blind spots, i.e. it does not perceive new tasks when they arise. Basically, it is a matter of time until existing structures have learned to react to new challenges. The learning

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[1] Since the mid-1990s the number of ,Ressortforschungseinrichtungen' stagnates. Cf. Philipps, 2011, 20.

process can be slow and it is impeded by political infighting as people staff them develop vested interests in the continued existence of their respective organizations. This can be best observed when new policy fields emerge.

One particularly pertinent example in that vein is the emergence of environmental protection as a new policy arena. Although certain aspects of the protection of nature had been part of the traditional array of tasks – regulation of water quality, forestry, fishery, national parks etc. – they were not considered parts of an integrated whole but were scattered over different departments like agriculture and interior. Of course, the department structure and the distribution of policy fields in their respective jurisdictions differ somewhat from country to country there are also striking similarities that justify generalization to a certain point (cf. work on science departments by Drori). In this case the discussion on the establishment of environmental protection as a policy field in the German government can serve as the example.

Triggered by international developments – the UN move to establish environmental protection in the early 1970s – the German government and advisers began to discuss how to accommodate this new task. The crucial point was: scientists advanced the notion of 'ecosystem' as the new category which, it was believed, should serve as the ordering principle for all regulatory activity referring to the protection of the environment. This implied, in the eyes of the expert committee commissioned to advise the government (Picht Kommission), a new administrative structure that would cut across the existing departments and allow to monitor and coordinate their environmentally relevant actions. That suggestion met with resistance from established ministries and would have required a radical re-thinking of the organization of government, even a radical change of the legal foundation of the cabinet system like Germany. Ministers head departments, are independent and hold posts in the cabinet.

Although the commission's suggestion was never implemented it clearly shows the discrepancy between how the scientific community perceived the problem and the department structure with its legal tradition and inbuilt political interests. Ultimately departments of environmental protection were established (in Germany the Ministerium für Umwelt, Naturschutz und Reaktorsicherheit, in the US the independent Environmental Protection Agency, in other EU member states also as agencies), following the traditional structure of government bureaucracies. In due

course new challenges such as 'protecting the environment' are accommodated by the administrative structures, but the time lag can be long and create legitimacy problems while the structural adaptations are underway. It is not imaginable to avoid such structurally generated 'blind spots' altogether (if it is not one it is another). The only question is if organizational mechanisms can be thought up that accelerate learning and reaction time.

A second source of ignorance is procedural. By procedural I refer to techniques governments use to manage, regulate, monitor and evaluate. Tools such as official statistics and, more recently, indicators based on statistics are prone to a selective perception of reality. Like organizational structures they serve governments to 'see' the world in a way deemed relevant by them. They claim implicitly to represent a complex social phenomenon in one number or in a ratio or a percentage etc. The indicator is usually given a definition – one category such as 'unemployment'- and an operational definition, i.e. an algorithm that prescribes the collection and combination of quantifiable data. By definition the operational definition is selective, i.e. it highlights certain aspects and downplays others. Salais describes in detail how the category of unemployment as used in the European social welfare states has been changed under the régime of the European Employment Strategy (EMS) in such a way as to render unemployment illegitimate, "as pathological behavior of people who prefer not to work…a behavior that needs to be corrected" (Salais, 2007, 379). In the framework of the Open Method of Coordination (OMC) states are reporting unemployment data without any reference to differences between national policies and the meaning of the category. The incentive is to "perform quantitatively better, i.e. maximizing the rate of employment" rather than to improve the state of society (ibid., 378). The very same can be said for reporting on the rate of innovation, or the benchmarking exercises in higher education (Weingart ScipoInnovpaper etc.). Indicators convey the impression to be entirely objective as they are expressed in numbers that are easily counted, compared and otherwise processed. But their blind spots and particularly the legitimacy they implicitly attribute to certain behavior and withdraw from other, the incentives they give to certain activities reveal their ideological function. Here, in the context of my argument, the crucial point is that the ignorance caused by indicators is best demonstrated by the revelation of unintended consequences such as with performance measures in higher education (Weingart ?).

A third source of non-knowledge is caused by the dynamics of knowledge. The basic connection is between the complexity of problems dealt with by governments and the correlate uncertainty of knowledge as well the lack of knowledge with respect to risks and potential consequences of decisions. Theorists of non-knowledge point to the fact that the 'explosion of knowledge' is coupled with an 'explosion of non-knowledge' (Wehling in Collin/Horstmann). They distinguish between 'relative' and 'absolute' non-knowledge of governments. The first is often the case with respect to environmental issues when industry, agriculture or private households have knowledge about 'their' particular production of environmental damage but withhold it from government. Absolute non-knowledge or 'societal ignorance' is the case when governments are confronted with general ignorance on the parts of experts and interested parties. The most prominent example was the damage to the ozone layer by FCCO2? (FCKW). Even the question of possible long term and distant effects was outside the governments' purview. A similar situation exists with respect to the health risks of mobile phones. The essence of this phenomenon is that 'unknown risks' become an issue of public and political concern in the wake of an uninhibited technological innovation dynamics (Wehling a.a.O., 317). How the government's task of risk prevention can assume a dynamics all of its own regardless of the available knowledge was demonstrated by the discussion about discontinuing the use of nuclear power in Germany in the aftermath of the accident in Fukushima.

IV. What governments don't want to know

The line between not knowing and not wanting to know is not easily drawn as motive is difficult to prove. The typical occasion when governments can be proved not wanting to know is when they are being given advice by scientific councils. The complaint of scientific advisers that their advice is not heard let alone translated directly into political decisions is commonplace. The more interesting question is why and under which conditions don't governments want to know? A first approximate answer is that governments don't want to know what interferes with their interests and ideological convictions. Because of the legitimating potential of knowledge some is intentionally ignored and if necessary actively contested or even suppressed depending on its diffusion and the perceived impact on public opinion.

The easiest case among these is that governments actually know but don't want to admit to know. The regulation of nuclear power appears to be a case in point.

The Japanese government apparently ignored warnings of a Kobe University seismologist that its Hamaoka reactor (in Omaezaki, a city 200km southwest of Tokyo) was built on a fault line of two tectonic plates. Already in 2007 a court ruled against a group of activists who had sued the company in view of an expert prediction that "there was a nearly 90 percent chance that a magnitude 8.0 quake would hit this area within the next 30 years". The court relied in its verdict on the testimony of a professor known to be a promoter of nuclear energy and since 2010 chairman of the Nuclear Safety Commission of Japan who brushed aside concerns saying that they would "make it impossible to ever build anything" (New York Herald Tribune, May 18, 2011). This is a typical case of selective attention to evidence. Given that there is conflicting advice (or: interpretation of evidence) on almost any problem it is also the most common example of 'not wanting to know'. Incidentally, during the recent debate in Germany to abandon nuclear power the government installed an 'ethics committee' to give a new assessment of its risk after the Japanese accident. Members of the committee later said that they had not learned anything that they had not known before. In other words: the government evidently decided to weigh knowledge that it had previously (and which it ignored) differently for fear of losing public support. To do so it felt obliged to call in experts but framed the committee's brief as an 'ethical' issue. The calculation was most likely, that the turnaround in energy policy, even though costly and technically risky made 'ethically' sense which was supposedly unforeseeable before the Fukushima meltdown.

Another example is more complicated. The former South African Prime Minister Tabo Mbeki gained some prominence for doubting the analysis of his Medical Council concerning the state and treatment of AIDS. Instead he was said to have consulted the internet for contradicting evidence, and he eventually set up a committee staffed with dissenting experts. At the time there was a lot of speculation as to his motives, whether he acted strategically in order to avoid the high costs of providing medication for his country and tried to mobilize conflicting expertise – a means frequently used by governments – or whether he truly believed that mainstream medical science was wrong. The latter would be a case when governments have such strong convictions that they do not see and/or cannot accept scientific evidence.

The most often cited case is the attitude of the Bush government in the US toward climate change research. It is hard to prove that the government knew better and

resisted the information deliberately because of ideological or political reasons, i.e.trying to protect the oil industry, or whether it did not believe mainstream climate research and turned to the dissenting minority as a referent instead.

Attempts have been made to 'harden' knowledge and thereby force governments and other decision-making agents to accept advice rather than to avoid it. The Cochran Collaboration is such an effort, trying to assemble all available knowledge about a certain problem and to systematically deduce the reliable knowledge through data mining and meta-analysis of data, thus providing 'evidence based' advice. This effort is primarily limited to clinical studies in health care, but attempts are made to apply evidence based advice in other fields and political arenas as well. Here is not the place to discuss the potentials and limitations of this approach and its epistemological assumptions except to say as much: Propagators of 'evidence basing' assume that by settling methodological issues and 'harmonizing' differences in results the knowledge communicated to governments or the public would become more compelling, thus forcing about decisions based on that knowledge, purportedly being without alternative. The exercise is partially successful on a very limited scale, i.e. where the methodology of tests is basically identical, where differences of results mostly emanate from different sample sizes, different conditions prevailing at the time of data collection, and where the decision to be made pertains to the setting of standards, threshold values etc. As soon as the epistemological context becomes more complex - apart from differences in methodology: assumptions underlying the design of study, differences in the calibration of the object under study etc. - opportunities to arrive at evidence based knowledge are shrinking fast. An observer of the pertinent policy arena in Germany states that the 'entire field of migration and integration policy' may be taken as an example where governments, in his view, don't want to know. Especially in the area of education and language 'very expensive model experiments' have been undertaken for three decades but to this day no one knows if they work.[2] But it should be noted that even if such evaluations would be undertaken they would in all likelihood not suffice to 'base' decisions of either continuing or discontinuing the experiments because they carry ideological meaning and are thus politically heavily charged. When the German Commission for Biological Safety announced its recommendation to release genetically modified corn into field experiments the

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[2] Private communication from H. Esser.

minister of agriculture, then a member of the Green Party known to be opposed to GMF, turned to a friendly research institute for another opinion. The example is telling because the matter on which the BMZ decided appears to be simple, clear cut and well based by research. That did not prevent the minister from looking the other way, referring to counter-evidence no matter how fragile. Thus, the debate was thrown back into the science community's lap.

Conclusion

Two major conclusions are to be drawn. 1) Knowledge is a source of political legitimacy in the broadest sense, whether it is used to advance interests and/or values on the level of individuals or small groups or by governments vis à vis their subjects, or within governments and, of course, between governments on an international level. Thus, production and diffusion of knowledge is a matter of pursuing interests. That is trivial.

2) Although this fundamental fact is part of societal reality in general and of politics in particular we may have entered a new stage which is also signaled by the term 'knowledge society'. The dealing with knowledge, its instrumental and ideological functions, has become reflexive. Nico Stehr advances the idea of 'knowledge policy' or 'knowledge politics'. Although we don't have ministries of knowledge regulation yet, and the idea would strike us Orwellian and/or Kafkaesque, in fact, we have ministries of education and science and technology, and all other ministries are engaged in knowledge politics without calling it that. One intriguing question is what will happen once we will start giving knowledge politics its name? How is knowledge production and diffusion regulated, by whom, with reference to what knowledge and to what legitimating arguments?