Can Evidence-based Policy Contribute to Correcting Overreaction?
—Considering Democracy and Rationalized Policy Making—

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Prefaces

Evidence-based policy making is strong stream in many developed democratic states. It aims to rationalize policy processes and improve policy programs. According to the theories of evidence-based policy, political processes are not preferable because they distorts the policy programs. Thus, promoting evidence-based policy making means that strengthen the experts and scientific knowledge in politics.

Evidence based policy concentrates on rationalizing policy process and public policy making. Therefore, it is said that evidence-based policy can contribute to correcting political overreaction because rationalization can deal with overreaction and irrationality. However, some researchers argue that evidence based policy disregards the value of democracy and it harms participation by citizens. Indeed, theorists of evidence based policy argue that politicians or administrations neglect the importance of evidence. According to such a perspective, participation is not preferable for good policy making. On the contrary, some researchers argue that in public policy making, we need to consider democracy and social value. These conflicts have a long history in public policy studies and analysis.

However, these discussions are often carried out without 'accountability'. The concept of accountability is complex, but it is clear that accountability has a strong relation with citizens who are not bureaucrats. This concept suggest that public policy must maintain clarity regarding why a policy is upheld or ended. Despite this, practices and theories of evidence-based policy emphasize 'what works', which relates to specific policy programs. They concentrate on improving policy programs. Thus, accountability to citizens has not been afforded due importance. Some researchers supporting evidence- based policy argue that evidence can correct the irrationalities of public policy and contribute to accountabilities. However, these sorts of evidence are too difficult to understood by laypersons, and in many cases,

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these evidence only serve to generate consensus among other policy elites, or other administrations in opposition.

Considering these aspects, it seems that evidence-based policy cannot contribute to correcting political overreaction because it does not aim to develop good relations with citizens. In my presentation, I explore seek some previous researches of evidence-based policy and consider the relation between evidence and accountability.

I will also examine an example of evidence-based policy in Japan, specifically scientific technology policy. Japanese scientific technology policy insists on a basis on evidence. However, Japanese scientific technology has many problems, amongst them, accountability. In this policy, the papers and reports are publicly available to be read by anyone, but such information is too complex, and thus difficult to understand. Thus, it does sufficiently satisfy accountability.

To correct overreaction in politics, not only policy elites but also laypersons must learn from evidence, particularly because the democratic process is prone to radicalization. Nevertheless, evidence-based policy has been ignoring the importance of accountability, and therefore, is unable to address overreaction in politics.

In my presentation and paper, I will suggest a new form of evidence-based policy which can deal with overreaction, one that will contribute to improve democratic process.

1. What is the need for evidence-based policy?
1.1 Democracy and the making of public policy
Policy-making is generally not rationalized in democratic countries, and democracy is unable to guarantee efficient policymaking. For example, in 2009, a change of government took place in Japan when the Democratic Party of Japan (DPJ) took power after being in opposition for many years. For its campaign, the DPJ created and promoted a manifesto, which had broad popular support. However, the DPJ failed to achieve the goals outlined in its manifesto, and it lost power in 2012.

It has been noted that the DPJ manifesto did not take feasibility and budgetary means into account (Funabashi and Nakano, 2017).

During the 2009 election, DPJ attracted support for the appealing qualities of its manifesto. However, this document ignored feasibility, which

led to widespread criticism of the DPJ among voters and in the mass media, resulting in another changeover of power.

Overreaction goes hand in hand with this issue. A few politicians had an outsize influence on the DPJ manifesto, and their policies attracted greater support from voters. Furthermore, a significant proportion of the public concluded that the manifesto would be faultlessly enacted; however, politics and the development of public policy bring uncertainties. It is not rare for electoral promises to remain unachieved. What lessons can be learned here? Many voters were unable to judge policies realistically, and many supported the DPJ manifesto without determining whether the policies were feasible.

Additionally, political ignorance leads to political overreaction. They may appear to be opposites; however, in a democracy, excessive expectation and disappointment are two sides of the same coin. I focus on this relationship in this paper.

1.2 Theories of evidence-based policy making

Evidence-based policy is one possible solution for political irrationality. If the DPJ had based their policy on evidence, it could have created a more feasible manifesto and could have improved public policy. The promotion of evidence-based policy is a reliable strategy for dealing with political overreaction.

The definition of evidence-based policy remains unclear. Some researchers have used RCTs (randomized controlled trials) to explore this question, while others have argued that big data and statistical analysis are more relevant. In any case, the core goal of evidence-based policy is rationalizing policy making. As Munro concluded, evidence-based policy making reduces the role of ideology and prejudice, because they can hinder the creation of effective policy (Munro, 2014). Evidence-based policy can form part of a process of depoliticization (Durose and Richardson, 2016).

Many researchers recognize that scientific evidence alone cannot support successful policy creation. Head argued that evidence-based policy requires three types of knowledge: the "three lenses" (Head, 2008), namely, political knowledge, scientific knowledge, and practical implementation knowledge. According to Head, through the lens of politics, policy making cannot be seen as a rationalized process.

However, the political process includes not only irrationality but also

debates (Dryzek, 2016). Within politics, value and ideology play important roles. To realize evidence-based policies, we cannot ignore them. Naturally, politicians and bureaucrats can use evidence to bolster their own positions or standing: cherry picking evidence. Researchers should study politics and its role in policy-making processes to improve the progress of evidence-based policy making (Cairney, 2016).

In contrast to this, other researchers have concluded that politics will prevent public policy from being made efficiently. Thus, policy making should be isolated from politics.

Scientific knowledge is the core of evidence-based policy. Expert and scientific opinions have been a prime concern in policy science since its history began.

This is well known to policy researchers; in that case, what is new in evidence-based policy?

First, evidence-based policy has a close relationship with research in medicine (Saltelli and Giampietro, 2017). RCTs and experiments are important for evidence-based policy making; these conceptions originate in the medical sciences (John, 2016). Evidence-based policy does not depend on these methods alone. It also incorporates the methods and results of various social sciences.[2] Nevertheless, the use of rigorous scientific methods forms the core of evidence-based policy. In evidence-based medicine, whether evidence is obtained through RCT, meta-analysis, systemic review, or other means, has bearing on its importance as evidence (Hantrias and Lenihan and Mac Gregor, 2015; Pawson, 2006). This natural-science-based thinking is a strong feature of evidence-based policy.

Second, evidence-based policy is pragmatic. The search for what works is the pragmatism of evidence-based policy in a nutshell (Davies and Nutley and Smith, 2000). This concept was popularized under the New Labor government in the UK, which focused on having a solid grounding in scientific knowledge (Sanderson, 2002b). Evidence-based policy draws the implications of knowledge to create its policy program.

According to Nutley, Walter, and Davies, evidence-based policy initiatives created within this broader view can assign a role in the policy process to

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[2] Stoker and Evans (2016) proposed the potential role of various social sciences in evidence-based policy making.

research and other evidence that is greater than a simplistic rational and consensus-based one: a role in which it also questions and challenges policy conclusions. This is not to deny that the promotion of a rational ideal for evidence-policy interface may bring some value; rather, I suggest that a better balance remains to be struck between such initiatives and others that allow for more open and interactive processes of the use of evidence in policy (Nutley, Walter, and Davies, 2009:23).

In evidence-based policy, it is important to use not only scientifically rigorous evidence by useful evidence as well (Bristow, Carter, and Martin, 2015). Evidence-based policy should seek to create useful evidence and an environment in which research is easy to apply.[3] The goal of evidence-based policy is to strike an appropriate balance between the application of created evidence and the rigorous creation of evidence.

Third, practical implementation knowledge relates to context and practical knowledge.

Context is best understood as the environment or circumstances that influence public policy (Bobrow and Dryzek, 1987). In the implementation of policy, context plays an important role. For example, RCTs can only guarantee that something may work somewhere; however, it cannot guarantee that it will work in the policy environment (Cartwright and Hardie, 2012). RCTs only guarantee efficient policy for the groups that they study. This is referred to as the problem of external validity. Additionally, as noted above, RCTs are constructed to obtain evidence that, then, would have some generality; thus, it cannot account for all contexts, which have influence on the potential efficiency of a given policy.

Coletti recognizes the problems of evidence-based policy. She cautioned that

> The assumption of the Evidence Based Policy stands on what kind of strategy should be adopted by policy makers, using evidence gathered from other contexts. This approach, however, seems to lose its connection with the policy process itself as well as with the actors playing in it . . . it may bring to miss some of the reasons of the policy

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[3] For example, study of policy advisory systems forms one sphere where such environments are being attempted to be created.

success or failure; on the other side, transferring to a different context or evaluating the outcomes produced in a different context may not be something easy to figure out (Coletti, 2013 p. 12).

This perspective has an extensive background. It draws on Pawson's realist perspective, according to which "the success of social programs is . . . limited by contextual constraints. Interventions, by definition, are always inserted into pre-existing conditions" (Pawson 2006, p. 24). These discussions focus on context for the obvious reason that public policy is not implemented in a laboratory but in society, which has a complex structure. Hence, as Pawson argued, "the goal is to facilitate the transfer of the "sticky knowledge" that makes for success in complex organizational innovations by bringing policymakers and practitioners together in informal space" (Pawson 2006, p. 181). Discussions that take context seriously incorporate a dimension of policy implementation, namely, discretion, and evidence from RCTs cannot account for the effects of context (Sugitani, 2017).

These three lenses are necessary to improve evidence-based policy. However, it is necessary to note studies to guide evidence-based policy have a tendency to ignore the role of democracy. Evidence-based policy has the secondary aim of depoliticizing or rationalizing policy creation. According to this point of view, it is necessary to acknowledge political considerations; however, they are not preferred as motivators. This is not true everywhere: some policy researchers emphasize politics and democratic politics in particular.

2. Critiques of evidence-based policy and difficulties with democracy
2.1 Postpositivist approaches
The relationships that politics bears to public policy is a thorny question for many researchers. As noted above, discussions of evidence-based policy have concluded that the contribution of expertise to public policy would include the correction of political irrationality.

However, there have been many critiques of evidence-based policy.

First, let us examine the perspective of postpositivism. Fischer is a representative exponent of postpositivism, and he argued that public policy should take account of values or ethics; thus, science is not the only foundation of public policy; public deliberation and narrative also play a role

(Fishcer, 2003).

In this line of thought, the aim of evidence-based policy, the depoliticization and rationalization of the policy-making process are problematic. In his recent book dealing with the climate crisis, Fischer recognized the importance of evidence and scientific knowledge for dealing with policy problems (Fischer, 2017). However, too great a dependence on scientific evidence and positivist approaches can transform the climate crisis into a purely scientific problem, devoid of ethics and values. Fischer observed the possible development of technocracy closely, which evidence-based policy can easily fall into.

On this view, evidence-based policy also ignores citizen participation, which is the core of democracy. In a democratic society, the creation of public policy has democracy as its basis; however, expertise is also necessary. To deal with this conflict, certain researchers have suggested new types of policy analysis, such as participatory policy analysis. DeLeon found that ordinary citizens, chosen randomly, should carry out participatory policy analysis (deLeon, 1997). This vision supports deliberation and relates to citizen juries. It is connected to a strong view of democracy (Barber, 2004).

2.2 The difficulties of democracy

Theories of postpositivism and their practice are foundational for the concepts of policy sciences for democracy. The policy sciences show the tendency to rest too much on expertise, excluding democracy, since postpositivists argued that researchers should be involved in a political process to improve citizens' knowledge (Fischer, 2003). As noted above, a participatory policy analysis would be one tool to achieve this goal.

However, numerous difficulties confront today's democracies, including overreaction. Recent studies have suggested that democracy has nothing to contribute to effective policy making. For example, Brennan suggested that there be an epistocracy in place of democracy (Brennan, 2016). He divided voters into three categories: hobbits, Vulcans, and hooligans.

Hobbits have no political opinions and no interest in politics. Most of the electorate are hobbits. They are defined by their political apathy. Most do not have political knowledge and are influenced easily by radicalism. According to Somin, this kind of political ignorance is fundamentally rational behavior (Somin, 2013). Generally speaking, it costs more to obtain political

information than not to. Many voters have little political information. Nevertheless, they vote for specific political parties or candidates. Recent research in Japan has suggested that the amount of political information available to someone has nothing to do with his or her voting behavior (Yamada, 2016). Thus, many hobbits vote for particular political parties or candidates without knowing about their politics or about public policy.

Vulcans are idealistic. They gather and use evidence, and they vote correctly, according to their interpretation. The democracy that policy science imagines is a society of such citizens. Many studies have attempted to accomplish this mission (Schneider and Ingram, 1997). However, these efforts have not borne fruit yet. Brennan observed that there are only few Vulcans relative to the numbers of hobbits, and they have little influence: hooligans have too much power in the political arena today. In fact, the prevalence of hooligans is a main reason for overreaction.

What, then are hooligans? They "are the rabid sports fans of politics. They have strong and largely fixed worldviews. They can present arguments for their beliefs; however, they cannot explain alternative points of view in a way that people with other views would find satisfactory" (Brennnan, 2016, p. 5). Hooligans show a strong tendency to come to conclusions based on their ideology alone, and they ignore evidence and rational political discussion. They have political interests; however, even when confronted with evidence that they are wrong, they do not change their thinking or beliefs.

All this, taken together form the rationale of evidence-based policy making. Contrary to the arguments of the postpositivists, contemporary democracy does not work well. In response to this adverse circumstance, postpositivists argue that democracy can be repaired through the promotion of participatory practices, such as public deliberation. However, Brennnan concluded that not only are even such practices meaningless but they are also counterproductive (Brennan, 2016, chapter 3). In this argument, political participation and deliberative democracy are stressful. Most do not follow Harbermas's rule; therefore, they are not able to have calm discussions. Additionally, the collection of political information is stressful, and it requires hard work. Even if, once the information on a specific party or candidate is collected, it is no guarantee that they will win. These truths

bring hopelessness, especially to Vulcans and hobbits.[4] Of course, this type of thinking is not altogether rational. Deliberation involves complex thought and practices. Creating appropriate circumstances for deliberation is necessary; however, deliberative public policy analysis can only be implemented on a small scale. Thus, although these efforts are not greatly effective, they are not meaningless.

2.3 Epistocracy and its critiques

As an alternative to contemporary democratic systems, Brennnan suggested a new type of political regime, namely, epistocracy.

An epistocracy bears some resemblance to democracy. According to Brennan,

> Epistocracies might have parliament, contested elections, free political speech open to all, many of the contestatory and deliberative fora that neorepublicans and deliberative democrats favor, and so on (Brennan, 2016, p. 208).

However, epistocracy has no requirement for political equality; just the opposite is true. "The major difference between epistocracy and democracy is that people do not, by default, have an equal right to vote or run for office" (Brennan, 2016, p. 208). In short, it requires a limited election. Then, the question arises as to how to limit voters' right to run for office. In epistocracy, only those citizens with more knowledge would be able to acquire power; in this way, such a system would be like the judicial systems, which everywhere co-exist with democratic political systems. In this way, in Brennan's proposal, the identity of those who have power is determined democratically, but its

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[4] In Japan, recent studies have found an efficiency and utility in deliberation and consideration on political issues (Tanaka, 2018). According to this work, discursive deliberation cannot help citizens gain factual political knowledge. However, it can make bring a citizen to realize that he or she had incorrect knowledge or a false belief. Furthermore, public consideration (bringing correct information to citizens and promoting them to think deeply) can contribute to increases in tolerance of different opinions. Given these results, we must combine deliberation and consideration appropriately. However, as Brennan suggested, overconfidence is harmful to deliberation.

foundation is knowledge: "there is good reason to hold democracy is incompetent to decide certain economic and political policies, and yet could be competent to decide what counts as competence" (Brennan, 2016, p. 226).

Of course, it is clear that such a political system would require the betrayal of the idea of political equality that forms the core of democracy. However, it matches a trend: today, the process of making public policy is becoming less and less democratic (Brown, 2015; Crouch, 2004). Epistocracy may undermine the basis for democracy, turning it into a threat to society. If this were to come to pass, no public policy that was the brainchild of experts or elites would fare well.
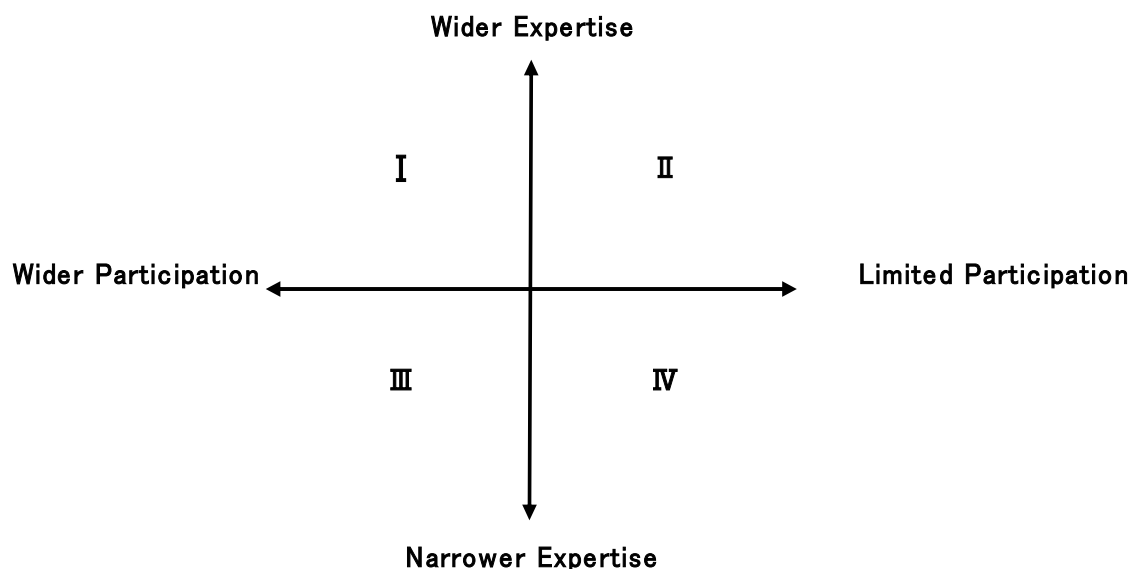
What, then, should be done? In the next section, I will integrate the theories mentioned above: evidence-based policy, participatory policy analysis, and epistocracy.

3. Participatory policy analysis and accountability
3.1 Sketch of participatory policy analysis

As mentioned in section 2.1, the postpositivists suggested that policy analysis become participatory, in the place of the current technocratic public policy.

However, participatory policy analysis can come in many different forms. Most often, it is discussed as deliberation. In this section, I will suggest ways in which deliberation can be classified.

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                         Wider Expertise
                              ↑
                              |
              I               |              II
                              |
Wider Participation ←─────────┼─────────→ Limited Participation
                              |
              III             |              IV
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                              ↓
                         Narrower Expertise
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Table. 1 Expertise and Participation

Figure 1 gives a trial classification for deliberative or participatory policy analysis (Fishkin, 2009; Ishii, 2011; Tadatomo, 2018). This classification coordinates participation range and expertise range. Here, narrower expertise includes the requirement that theoretical knowledge be present. Limited participation refers to the exclusion of ordinary citizens who are not in government. By contrast, wider participation, by contrast, includes a greater range of citizens; however, there can still be wider or narrower criteria for expertise. This perspective comes from Brennan's critiques of deliberative democracy. He suggested limiting the right to vote; however, he neglected to treat the process of crafting public policy or its analysis. Here, I challenge political systems to take up the new direction of evidence-based policy, which can be undertaken in collaboration with a limited participatory policy analysis.

   Quadrant I represents the participation by citizens with wider expertise. The range of participation signified is relatively large. Wider expertise here signifies local or practical knowledge. Furthermore, here wider participation signifies the inclusion of not officials or bureaucrats only but also of ordinary citizens. The system of policy creation type represented by I includes deliberation among citizens with local knowledge together with public officials engaged in the actual implementation of public policy. Thus, there

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will be the input of knowledge of practical implementation in public policy analysis. As Head suggested, for evidence-based policy to be created, it falls on researchers and policymakers to be the repositories of such knowledge. The citizens included in wider participation are those who have local knowledge and participation in the process of making or analyzing public policy. Scholars who emphasize the importance of participatory policy analysis have recognized that local knowledge is a fruitful source of contributions to the creation of good policy (Fischer, 2000).

Quadrant II shows a greater focus on practical implementation knowledge than I does. Here, only public officials who engage in public policy implementation participate in deliberative analysis of policy. Knowledge of the context and implementation of public policy would make efficient policy. For evidence-based policy, the lack of knowledge of practical implementation knowledge is potentially a fatal problem (Hammersley, 2013). However, evidence-based policy can address it by providing a correction of such information.

Quadrant III falls under wider participation and narrower expertise. This represents that deliberation or participatory policy analysis conducted by opposition researchers. For example, the development of Japanese nuclear policy had the support of many researchers; however, it was conducted in secret, and its means of selection of those involved in its creation was not fair (Shindou, 2017). Evidence-based policy must look widely for evidence for corrections to avoid similar failings; not doing so is justly labeled cherry picking (Cairney, 2016).

Quadrant IV represents a typical governmental council. Thaa warned that deliberation among experts alone is a crisis for democracy (Thaa, 2012). Within this classification, in IV means encompasses the cases where few experts discuss policy, only bringing forth evidence from their own perspectives. A typical example of this kind of policy making is found in the scientific technology innovation plans of Japan that emphasize evidence-based policy.

Through this examination, I am attempting to promote an appropriate depoliticization of public policy making and analysis. Of course, democratic ideals are very important for public policy making; however, as Brennan suggested, contemporary democracy is in the midst of a malfunction. Evidence-based policy can contribute to correcting this; however, wider

expertise must be incorporated into evidence.

   In the next section, I suggest a conception of accountability that will allow this problem to be considered more deeply.

3.2 Problems of accountability

Accountability is an especially difficult concept in Japan. For example, Yamaya, a pioneer in public policy evaluation in Japan, concluded that the term is interpreted to mean solely responsibility for explanation (Yamaya, 2006). Thus, the Japanese government merely bears information on public policy. However, in a democratic society, accountability must mean a revelation not only of procedural validity but also of the effectiveness of programs (Hashimoto, 2017).

   Democracy alone cannot bring about accountability. To achieve accountability through the ballot box, certain conditions are necessary that have not yet been met (Achen and Bartels, 2016) and must be met.

   For example, Japanese policies on science and technology appeared to be important because they were expected to lead to innovation and economic growth. However, most citizens have no interest in science and technology policy and do not understand the evidence for and against different science and technology plans.

   This means that elections cannot bring accountability to officials. To understand public policy requires extensive knowledge; however, many citizens are politically ignorant. How can this be ameliorated? To begin with, we need to set limitations to accountability.

   Japanese science and technology policy, especially The Fifth Science and Technology Basic Plan, has met with critiques by active researchers (Ikeuchi, 2017).These critiques cover a wide range; however, I want to particularly emphasize that the plan, as it stands, ignores the needs and requirements of the policy implementer, especially universities and professors. It has been argued that results-oriented science policy can drive innovation, but instead, Japanese science is now shrinking and weakening: this orientation exhausts universities instead of strengthening them. The plan was presented with the claim that it would improve Japanese science policy. Science policy in Japan should be examined through participatory policy analysis to correct the current miserable state of affairs. However, to avoid political overreaction, participation should be limited.

How might political overreaction occur for Japanese science policy? As noted above, currently, most Japanese citizens have very little interest in science policy. However, ignorance and indifference could easily become political overreaction. As the example of the short-lived sojourn in power of the DPJ suggests, excessive expectations of public policy or politicians can lead to deep disappointment. The given science and technology plan was presented with an optimistic vision of the future; however, this vision never arrived. If the plan is conceived to be a failure, and many citizens become concerned about it, political overreaction would be a natural result.

Political overreaction occurs due to political ignorance. Evidence-based policy cannot accommodate it because its evidence is beyond laypersons. Evidence-based policy confronts the problem; it pursues what works, using pragmatism but ignoring accountability. It does not focus on improvements in democratic decision making; thus, it cannot deal with political overreaction.

How can this be avoided in the future? In the following section, I discuss the necessity of limited participatory policy analysis for improving evidence-based policy.

4. New directions in evidence-based policy
### 4.1 Merits of limited participatory policy analysis

The Fifth Science and Technology Basic Plan, along with many other policies as well, was created and formulated by a small group of experts. Such policy creation cannot take into account the implementers of the policy or the actual implementation. Consequently, these policies are ineffective and ignore reality.

However, opening access to a wider field of participants also does not guarantee effective policy. As I noted above, too great of a dependency on laypersons is dangerous. In place of this, I presented Figure 1, which shows different types of policy making, in terms of degree of expertise and degree of participation.

Figure 2 shows a desirable distinction in policy analysis in policy making. Here, it is represented that making public policy should involve wider participation from the public. If this is done, two merits will accrue from evidence-based policy.

First, this can aid policy makers to incorporate practical implementation

knowledge into their policy making. Head and also other critics of evidence-based policy have argued that evidence-based policy has a tendency to ignore implementation (Hammersley, 2013). Evidence-based policy should adopt a wider definition of evidence to address this.
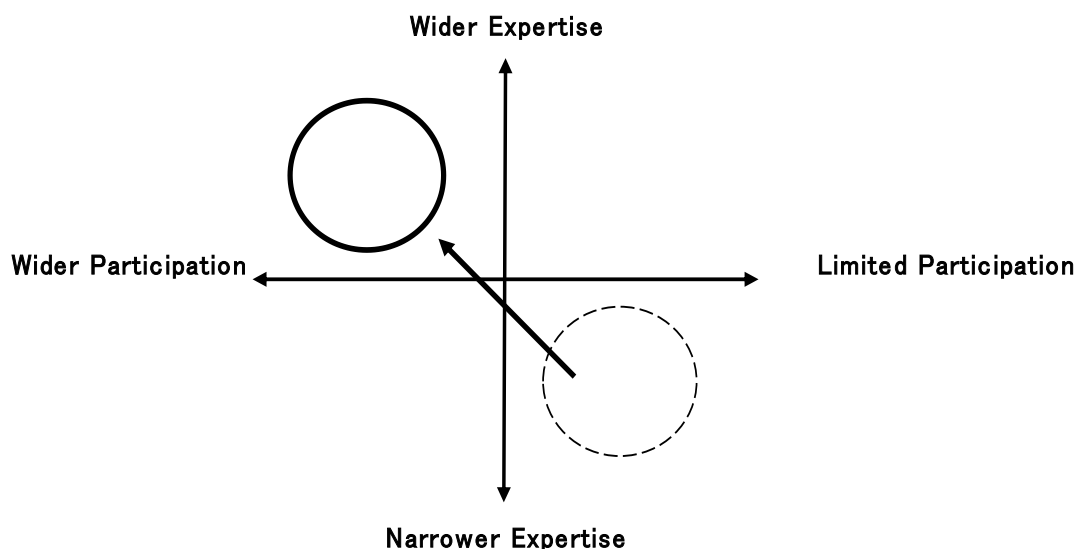
Table. 2 Desirable Direction of Policy Participant

Second, wider participation can contribute to accountability. In participatory policy analysis theory and the evaluation of policy, the wider the range of participants involved in the policy process, the larger the number of those committed to its improvement (Minamoto, 2016). If more experts become involved in policy making or evaluation, more experts can take accountability for more laypersons. Of course, since many citizens cannot understand the difficult evidence and complex reasoning required, this scenario is far from rosy. However, the participation of only a few experts makes this situation worse. The participation of a wider range of experts can strengthen experts' influence. These efforts can weaken political overreaction because information alone cannot correct prevalent bias. Evidence-based policy is needed to bridge researchers and laypersons as well as researchers and policy makers. The participation of a wider range of experts would contribute to this.

This line of thought tends toward epistocracy in some of its dimensions. Nevertheless, this perspective develops a new perspective for evidence-based

policy, unlike Brennan, who did not focus on the process of crafting policy. The point is as follows: current critiques of democracy focus on elections; however, these alone are not enough to improve the state of public policy. An election is only one (albeit an important) element relating to public policy. Additionally, epistocracy has the serious shortcoming that it remains unclear who should have power; however, in this essay the answer to this question is clear.

4.2 Democracy, political overreaction, and evidence-based policy

Democracy is facing a serious problem at the present time. Some have criticized democracy for its inability to solve problems because few citizens have the knowledge to adequately judge policy.

Consequently, it can be expected that political overreaction would occur. Democracy's limitations are easily seen in the creation of public policy. Evidence-based policy appears in the background of this environment. It was intended to rationalize policy making based on rationality and exclude anecdotes, which are nearly indistinguishable from rumors but have great influence over laypersons (Breuning, 2018). This irrationality could easily lead to overreaction.

Second, evidence-based policy has been exposed to much criticism. The postpositivists claim that evidence-based policy is an invitation to technocracy, which is an anti-democratic political regime. The postpositivists suggested the creation of a participatory policy analysis to overcome technocracy. Furthermore, some argued that scientific evidence alone is not enough to improve public policy (Hammersley, 2013; Nelson, 2011). Some researchers have recognized the limitations of evidence; they have argued that a wider definition of evidence should be considered (Cariney, 2016; Colletti, 2013; Head, 2008).

In this paper, I suggested limited participatory analysis to support evidence-based policy. In this system, only knowledge holders would be allowed to participate.

Is this orientation anti-democratic? The answer is both yes and no.

Advocates supporting participatory policy analysis as carried out by laypersons would argue that this tendency has its technocratic aspects (deLeon, 1997; Fischer, 2003). However, limited participatory policy analysis or policy formulation can still improve accountability. Japanese science policy,

which was created by too narrow a field of experts, has resulted in the antipathy of many researchers. If more researchers had been consulted in the original creation of the policy, this might have been avoided. Since most citizens are not familiar with science policy and its rules of evidence, elections are not an adequate remedy. Accountability must come from other sources, as well as elections. This would strengthen democracy and make it better.

Conclusion

Let us return to the first question: Can evidence-based policy help correct overreaction? If evidence-based policy means that the formulation of policy relied only on narrower experts, it would not have a positive contribution. However, if evidence-based policy were to take adopt a participatory policy-creation process, the question could be answered positively.

Unfortunately, recent studies of democracy, and especially studies of elections, have found that that it does not contribute to making good public policy. The implementation of evidence-based policy should correct this. However, it is dangerous to assume that if only correct evidence could be input into the policy-making process, public policy would experience a desirable change. Many times, evidence is difficult and complex to understand: thus, most citizens cannot deal with evidence. This has a great deal to do with the danger of political overreaction.

To correct this, evidence-based policy should adopt participatory policy analysis that excludes laypersons. However, keeping the band of experts considered for participation to narrow would end in failure. The important point is that democracy or technocracy alone cannot make good policy. For Japan, the range of experts involved in policy creation is too narrow, stimulating antipathy in other experts' antipathy to instituted policies, keeping a full accountability from citizens.

I suggested in this paper that we should alter the concept of participatory policy analysis. Not only could this contribute to making a more democratic society but could also contribute to the creation of good evidence and a fulfillment of accountability because evidence could be translated into ordinary words. This should be done by incorporating a wider range of researchers or policy implementers. By this means, evidence-based policy can contribute to the prevention of overreaction.

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