Deliberation in Valuation and Decision Making: A Conceptual Clarification

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Une importante littérature critique les faiblesses des méthodes d'évaluation économique fondées sur les préférences déclarées, qui sont utilisées pour évaluer les biens et services environnementaux hors marché, comme l'évaluation contingente et les expériences de choix. L'Évaluation Monétaire Délibérative (ÉMD) est une alternative importante, d'émergence récente, aux versions standards de ces méthodes. Elle consiste à combiner des dispositifs délibératifs avec des techniques d'élicitation de préférences. Malgré son ancrage dans la litérature philosophique profuse qui se consacre à la démocracie délibérative, les fondements théoriques de l'ÉMD restent trop peu étudiés, à l'exception notable des efforts de Bartkowski and Lienhoop (2018), qui s'appuient sur la philosophique de Sen. La présente contribution conceptuelle poursuit cet effort théorique en ciblant deux problématiques laissées en suspens par ces auteurs. La première est la question de savoir comment l'on peut attester du fait que la délibération a bien joué le rôle qui est le sien, dans l'ÉMD et, plus généralement, dans l'aide à la décision (nous parlerons de la

problématique de *l'effectivité de la délibération*) ; la seconde pose la question du rôle que les économistes et consultants impliqués dans le déroulement de la délibération sont supposés jouer (nous parlerons de la problématique du *rôle de l'analyste*). Afin de clarifier le programme de recherche que l'ÉMD, ou toute autre méthode alternative, devrait poursuivre afin de lever toute ambiguïté sur ces questions, nous nous appuierons sur un cadre formel introduit par Cailloux and Meinard (2019), conçu pour modéliser la posture adoptée par un individu sur un sujet donné à la faveur de sa participation à une délibération : son *jugement délibéré*. Ce cadre permet d'identifier des questions empiriques auxquelles l'ÉMD ne répond pour l'heure pas, alors même qu'y répondre serait nécessaire pour clarifier le positionnement de l'ÉMD sur la problématique de l'*effectivité de la délibération*. Quand au *rôle de l'analyste*, notre cadre suggère de confier à l'analyste le rôle actif de création de ce que nous appelons des modèles de jugement délibéré. Ce cadre aide ainsi à caractériser les positions normatives adoptées lors de l'implémentation d'une approche délibérative.

Mots clés : évaluation économique, aide à la décision, justification, validation empirique, méthodologie.

A voluminous literature addresses the weaknesses of standard stated preference methods used to value non-market environmental goods and services, such as contingent valuation and choice experiment. Deliberative Monetary Valuation (DMV) has emerged as a prominent alternative to the standard versions of these methods. It combines deliberative institutions with preference elicitation. Despite an anchorage in an extensive philosophical literature on deliberative democracy, the theoretical foundations of DMV are underinvestigated. A noteworthy exception is Bartkowski and Lienhoop (2018)'s effort to use Sen's philosophical views to elaborate such theoretical foundations. The present conceptual contribution pursues this theoretical effort by pointing out two issues left unanswered by the above contribution. The first issue is: how can one ascertain that deliberation has attained its goal in DMV and, more broadly, in decision-making? (We term this the *deliberative credentials* issue.) The second issue is the role that economists and consultants involved in the proceedings of deliberation are supposed to play. (We term this the *role of the analyst* issue.) In order to clarify the kind of investigations that DMV or any alternative method

should implement to be unequivocal on these issues, we use a formal framework introduced by Cailloux and Meinard (2019), designed to capture the stance that an individual has on a given topic once she has participated in a deliberation: her "deliberated judgment". This framework allows to identify empirical questions that DMV do not tackle whereas answering these questions would be necessary to clarify the stance that DMV takes on the *deliberative credential* issue. When it comes to the *role of the analyst* issue, our framework advocates an active role of the practitioner in creating what we call models of Deliberated Judgments. This framework helps to characterize the normative stance adopted when implementing a deliberative approach.

Keywords: valuation, decision support, justification, empirical validation, methodology.

JEL Classification: B41, D60, C9, D83.

1 Introduction

A voluminous literature now addresses the practical, methodological and philosophical weaknesses of the standard Stated Preference Methods (SPM) used to value non-market environmental goods and services by eliciting individual Willingness To Pay (WTP) (Meinard et al., 2016). As summarized by Bartkowski and Lienhoop (2018, 2019), the most important criticisms addressed at these methods raise two political and ethical concerns. The first one, articulated in terms of the consumer-citizen dichotomy, refers to the idea that SPM would discourage respondents from acting as citizens, in particular by taking into account the social implications of their choices and statements (Soma and Vatn, 2014; Vatn, 2009). The second concern is that SPM ignore the reasons underlying respondents' statements or choices, whereas understanding those reasons is, according to some authors like Sen (1995), perhaps even more relevant and important than the statements and choices themselves. A further concern is that respondents typically need time and thinking before they can form a meaningful answer about their WTP for such subtle matters as environmental questions, but standard SPM do not grant much importance to the way respondents form theirs. They mostly limit themselves to providing respondents with basic information, and most of them even assume that preferences are already well-established.

A prominent alternative to standard SPM has emerged in the past 25 years, with first applications in the 2000s: Deliberative Monetary Valuation (DMV)

(Spash, 2007; Bartkowski, 2017). These methods combine deliberative institutions, such as focus groups, with preference elicitation techniques such as choice experiments. The emerging literature on these methods suggests that they have important strengths as compared with standard SPM, at several levels. At a practical level, it appears that respondents find it easier to make sense of these methods, and are less likely to refuse to answer to valuation questions (Lienhoop and MacMillan, 2007; Szabó, 2011). At a philosophical level, the very label of these methods, and the deliberative institutions on which they are based, refer to the notion of deliberative democracy, which has been extensively investigated since the 1980s and is now prominent in the literature in political philosophy (Chappell, 2012).

Despite this anchorage in the philosophy of deliberative democracy, the theoretical foundations of DMV are arguably underinvestigated (Bartkowski, 2017; Bartkowski and Lienhoop, 2018; Bunse et al., 2015; Kenter et al., 2015). A noteworthy exception is Bartkowski and Lienhoop (2018)'s pioneering effort to use Sen (2009)'s philosophical views to elaborate such theoretical foundations. Although Bartkowski and Lienhoop (2018) usefully highlight the theoretical and philosophical issues underlying deliberative valuation and identify relevant philosophical sources to think them through, they also leave aside some prominent theoretical problems. Our aim in this article is to highlight the importance of two of these remaining problems, and to outline avenues for their resolution.

A first problem is that the literature on DMV fails to clarify how one can ascertain that deliberation has attained its intended goal. Most studies in the literature endorse either of the following two understandings of the goal of deliberation. Some studies are "substantive", in the sense that they understand deliberation as aimed at helping respondents to form informed and stable preferences. Others are "normative", in the sense that they see deliberation as a way to democratize decision making and open it to value pluralism.[1] In either case, the literature does not indicate means to ascertain whether the intended goal has been attained. This is, however, far from trivial.

A prominent, but ultimately flawed, candidate criterion to monitor the achievements of deliberation is whether it allows achieving a consensus. Some authors claim that the point of exchanges of arguments and interactions during deliberation is to reach a mutual understanding of environmental problems and to identify a common solution (Vatn, 2009), or even a single social

[1] Schaafsma et al. (2018) pinpoint these two classical views, but add a third approach, called "instrumental", which uses deliberation as a means to achieve particular, independently defined, policy goals.

WTP (Orchard-Webb et al., 2016). The underlying idea that deliberation is conducive to consensus is often presented as a basic tenet of deliberative democracy theory (Wilson and Howarth, 2002).

However, this consensus-based approach is now largely discredited. Indeed, it is challenged by two important objections. The first one is that there can exist deep moral disagreements (Dryzek, 2013) between some people or groups, and it might prove impossible or not desirable to heal such disagreements. The second one is that unanimity can reflect exclusion and power dynamics (Elster, 1983; Völker and Lienhoop, 2016; Vargas et al., 2016, 2017; Murphy et al., 2017) rather than a normatively meaningful convergence of views. Bartkowski and Lienhoop contrast this consensus tenet with the notion of a "plurality of impartial reasons" championed by Sen (2009). This stance leads them to defend an approach to DMV where consensus is neither required nor expected.

In a vision in which there is consensus if and only if there is enough deliberation, observing consensus, or the lack thereof, permits to determine whether there has been enough deliberation of the right sort. But as soon as one acknowledges that consensus can also be generated by brute force and that deliberation can leave room to disagreements, observing a consensus loses its relevance. How, then, can one assess the deliberative credentials of a given DMV? Bartkowski and Lienhoop neither raise nor answer this question. There is hence a need to articulate much more clearly how it can be ascertained that deliberation has attained its goal. This is what we call the issue of the *deliberative credentials* of DMV.

This first blind spot of the literature on DMV is associated with a second one. The literature on deliberative democracy, and especially the writings of its founding fathers, Rawls (2005) and Habermas (1992), place emphasis on questioning the *stance* that philosophers take when they state the tenets of moral or political theories (Meinard, 2014). This leads them to address questions such as: How far can they go when they express their own views? Is it legitimate for them to provide others with information? Would it be legitimate for them to highlight mistakes in the reasoning that others express? And so on. By contrast, the literature on DMV appears strikingly silent about the stance of economists and consultants involved in the proceedings of deliberation as part of DMV, as if they were transparent and neutral observers. Even practice-oriented detailed contributions such as Schaafsma et al. (2018) limit themselves to pointing out that economists implementing DMV studies should have moderation skills, but do not explore the practical counterparts of Rawls's and Habermas's inquiries into the proper role of philosophers. This stands in stark contrast, not only with the philosophical literature on deliberation, but also with the practice of decision support, which typically emphasizes

the importance of decision support interactions that consist, for the analyst, in ensuring that the aided individuals understand and accept the reasoning on which decision support is based. This is what we term the *role of the analyst* issue.

So far, the pioneering research on DMV and associated methodological problems have been mainly developed in the context of environmental issues, and published in journals in economics of the environment. However, the scope of the *deliberative credentials* and the *role of the analyst* issues is clearly larger than DMV, and even larger than *environmental* issues. It encompasses all the problems that might arise when actors are concerned with a problem for the resolution of which taking arguments, knowledge or expertise into consideration can be relevant. In the present article, we tackle these problems at a general level, without any specific reference to environmental issues. Our aim is to introduce, at a theoretical level, an approach to strengthen DMV by explicitly addressing *deliberative credentials* and the *role of the analyst* issues. We leave for future work concrete empirical applications, to focus on conceptual challenges. In section 2, we take advantage of a formal framework introduced by Cailloux and Meinard (2019) to address the challenges raised by these two issues. In section 3, we ponder on the philosophical meaning of our contribution and we pinpoint empirical challenges that our proposed approach raises for the future of deliberative methods.

2 A Formal Framework to Address the *Deliberative Credentials* and the *Role of the Analyst* Issues in Deliberative Methods

In this section, we present the formal framework proposed by Cailloux and Meinard (2019) and explain the methodology used to devise and use such a formal framework, and show how this approach addresses the the *deliberative credentials* and the *role of the analyst* issues.

2.1 Formal Definitions to Address the *Deliberative Credentials* Issue

Typically, deliberation is, informally, attached to many *prima facie* desirable properties of discussions or stances that people reach thanks to discussions, such as consistency, transparency, informativeness, among others. However, the above terms can have multiple meanings, and in some understandings the

corresponding properties can have contradictory implications. Clarifying, in formal terms, the aim of deliberation is therefore useful. Our proposal for this clarification is that the reference to deliberation captures two central ideas.

The first idea is that the judgments that an individual reaches thanks to discussions of the right sort are the result of a careful, open-minded and rigorous examination of arguments and counter-arguments: through deliberation, the individual gathers new information, learns about the viewpoints of other people, and takes the time to think about all these elements, which are all arguments for or against this or that stance. This idea echoes the approach to the notion of rationality developed by Habermas (1981). In his approach, actions, attitudes or utterances are rational if and only if the actor performing or having them can account for them, explain them and use arguments and counter-arguments to withstand criticisms that other people could raise against them. Variants of this vision of rationality play a key role in other prominent philosophical frameworks, such as Scanlon's (2000) and Sen's (2009). For simplicity's sake, we will simply talk about "rationality" to refer to the idea of a careful examination of all arguments and counter-arguments. In this manuscript, when using the term "rationality", we mean it in the wide sense described in this paragraph, in contrast to the narrow version of rationality used in parts of the economic literature.

The second idea is that the judgments that an individual reaches thanks to discussions of the right sort are nevertheless the individual's own judgments, in the sense that they do not reflect the application of any exogenous criterion. This second idea will be nicknamed "anti-paternalism" in what follows.

Notice that, by saying that the reference to deliberation captures the two ideas of rationality and anti-paternalism, we reject a view of deliberation which might, at first sight, be self-evidently relevant, but is untenable after all. This idea is that exchanging arguments in discussions with other people is a value in itself that underlies, and perhaps even exhausts, the reasons one can have to champion deliberation. This idea is untenable because, as recalled above, it is established that group discussions involve power dynamics and that language can be a rhetorical manipulative tool. Therefore, discussions cannot be unequivocally considered to be valuable in themselves. Discussions encompass different aspects, some of which represent disvalues. If one wants to champion the value of discussion, one therefore has to analyse discussions as complex wholes, to identify valuable aspects in them, liable to outweigh the above disvalues. This is what our proposal does: we claim that discussions are valuable to the extent that they allow fostering rationality and anti-paternalism. An obvious correlate of our claim is that if rationality and anti-paternalism can be achieved without the kind of informal talks that one calls "discussions" in

everyday life, then these "discussions" will be dispensable, and deliberation will have happened nonetheless.

To formalize these ideas, let us assume that a Decision Maker (DM) is given together with a topic about which the DM wants to make up her mind. We also consider a set that contains all the arguments that one can make use of when trying to make up one's mind about the topic. Elaborate typologies of the kinds of arguments involved in environmental deliberations have been developed in the literature, for example by Chateauraynaud (2007). By using here a very abstract notion of argument, we aim to encompass all the diversity included in such typologies.

We are interested in defining the DM's stance towards the topic once a deliberation has allowed her to ponder all the arguments possibly relevant to the situation, so as to reach her pondered (rational) own (anti-paternalistic) stance. Let us call this stance her Deliberated Judgment (DJ). In this definition, the DM's DJ is the stance that is such that: (i) the DM considers that there are good arguments supporting it, and (ii) when counterarguments are raised against it, there are always other arguments that, according to the DM, trump these counterarguments.

In other words, if we call "decisive" an argument that is never trumped by any counterargument, then the DJ of the DM is the set of propositions in the topic that are supported by decisive arguments. Let us call those propositions "acceptable". This definition echoes Rawls's (2005) emphasis on the requirement of *acceptability* by reasonable citizens.

Notice that, typically, people will change their mind as discussions unfold. For example, the DM might initially have taken a given argument to trump another argument, but he might then change his mind upon being presented a third argument, because he figures that this third argument trumps the second one. Identifying decisive arguments and acceptable proposition is, as a consequence, a difficult empirical task for which dedicated protocols should be developed. We will come back to this empirical challenge below.

At the present stage, the important point is that the concepts introduced here define precisely when exposure to arguments is enough to consider that someone's stance has been formed and informed by deliberation. Indeed, the DM's DJ are anti-paternalist, to the extent that they are his *own* judgments. And they are rational, owing to the fact that the DM forms them by considering all the relevant arguments.[2] Based on our understanding of the role of

[2]Notice, however, that the notion of "considering an argument" is a slippery one. Here, we will assume that, if an individual is given the opportunity to examine an argument, this will be enough to claim that he has "considered the argument". However, subtle psychological factors can complicate this picture. In particular, an individual can be

discussion, anchored as it is in the above-defined notions of rationality and anti-paternalism, this formal framework hence takes a clear position on the *deliberation credentials* issue.

2.2 A Procedure to Address the *Role of the Analyst* Issue

Now that we know what we look for (the DM's DJ), how can we capture it in practice? Since the point is to capture people's stance on an issue once they have considered all the relevant arguments, a natural suggestion is that we should simply gather all the relevant arguments, provide them to the DM, and let him express his stance. The undeniable strength of this informal approach is its simplicity. However, it oversimplifies what it means for a respondent to make up her mind on an issue and on relevant arguments. Indeed, although in some very simple situations, it might be possible to enlist a small series of arguments directly relevant to the issue, in all but the most trivial situations, relations between arguments and counterarguments can draw long and complex chains, and numerous arguments can find their place in various such chains. In all but the most trivial situation, the informal, supposedly simple task of showing to respondents the relevant arguments is therefore doomed to quickly become very messy, time-consuming and deeply confusing for the respondent (and perhaps even for the analyst).

There is, therefore, a need to organize and rationalize this process. To that end, Cailloux and Meinard (2019) propose a procedure to follow to determine if deliberation has reached its aim in practice. This procedure consists in a process of testing *models* of DJs. Let use summarize this procedure and show how it addresses the *role of the analyst issue*.

A model of someone's DJ (given a topic and a set of arguments) is defined as a series of hypotheses concerning the propositions that are in her DJ and the arguments that support these propositions in her view, together with an argumentative strategy, i.e. hypotheses concerning counter-arguments and means to counter them, phrased in terms of predictions about the DM's declarations about which arguments trump which arguments.[3] The goal of a model is to capture the individual's DJ. Such a model can hence be said to be *valid* if the DM's DJs are indeed the ones hypothesized by the model.

exposed to arguments but fail to take them seriously into account, because he has other things in mind. We will come back to this empirical issue in the discussion section.

[3]Elaborating such models is bound to be a complex task, involving important theoretical and practical challenges. Let us leave aside these issues to focus on the meaning of the process.

The crux of the *role of the analyst issue* hence lies on how she will determine if the model she has designed is valid for the DM she works with. She cannot do that by querying the DM's DJ directly, since the DM ignores his own DJ before having performed a deliberation of the right sort, and identifying a valid model is needed to know when deliberation of the right sort has unfolded. Cailloux and Meinard (2019) show that, if some mathematically specified conditions are satisfied (*Justifiable instability*; *Closed under reinstatement*; and *Boundedness*), then a given model is valid if the following so-called "operational validity" criterion is satisfied: whenever an argument can be found to convince the DM that he does not endorse the model's claim, the model should be able to produce a counter-argument that the DM will agree sometimes trumps this argument.

Leaving technicalities aside, what does this procedure means in terms of the role it assigns to the analyst?

When checking whether the operational validity criterion is satisfied, the analyst queries the DM about whether a given argument trumps another argument. This can, in some case, involve showing to the DM an argument that she had not thought about. The analyst therefore actively interacts with the DM, and possibly modifies the DM's perspective as he checks the operational validity criterion. The procedure associated with the operational validity criterion thereby takes a clear position on the *role of the analyst issue*: the role of the analyst is to interact actively with the DM by providing her relevant arguments and counterarguments, until she has reached her DJ.

Our proposed formal definitions and the associated procedure therefore provide a conceptual apparatus to clarify what deliberation is expected to yield, and how to make sure that it effectively did it.

3 Meaning and Perspectives

In this section, we begin by discussing the philosophical meaning of the framework presented above, before highlighting the empirical challenges that this framework pinpoints for further developments of DMV.

3.1 Philosophical Meaning

The two notions of rationality and anti-paternalism, whose formalization provides the basis for the above framework, play an important role in contemporary normative philosophy. Indeed, the search for a compromise, an equilibrium or a satisfactory articulation between these two requirements can be seen

as a key thread running through contemporary political philosophy.

A case in point is Rawls's notion of "reflective equilibrium". Following Goodman (1983), Rawls (1999, p.18) used the phrase "reflective equilibrium" to refer to a "process of mutual adjustment of principles and considered judgments". This formulation highlights that, in Rawls's *Theory of Justice*, this notion was intended to do justice both to people's moral intuitions and to the need to systematize visions of justice. Rawls thereby granted a prominent importance to people's own judgments (both as to how specific cases should be adjudicated and as to whether a given general principle is acceptable), which is what we termed "anti-paternalism". As for the reference to principles, and the idea that the judgments to be taken into account are the ones that can be termed "considered", they echo our rationality requirement, if one admits that judgments are "considered" when they are buttressed on a careful analysis of arguments and counterarguments, and that principles systematizing considered judgments provide arguments in favor of these judgments. Rawls's "reflective equilibrium" hence embodies the two ideas forming the core of our concept of DJ. The credibility of this interpretation is reinforced by the fact that Rawls's (2005) later work grants an increasing importance to the notion of "due reflection"—a notion that does not refer to principles and is more general than the one of "reflective equilibrium".

This broader philosophical perspective also usefully points to another important debate. A prominent aspect of the concept of reflective equilibrium that our reasoning has so far set aside is its purported interpersonal dimension. In *A Theory of Justice*, the reflective equilibrium is not presented as the result of the endeavor of an insulated individual, but is rather defined from the very beginning in collective terms. Similarly, when Rawls makes use of the concept in *Political Liberalism*, he presents it as a "device of representation" that citizens can use to calibrate their public discussions. Like many other key concepts of the Rawlsian framework, the one of reflective equilibrium is hence systematically presented by Rawls in pluri-individual settings—another example in Rawls's *Theory of Justice* is the "parties" choosing the principles of justice, which are unequivocally presented as a collective. At first sight one might object to our approach that it lacks such an interpersonal dimension. If true, this would be a worrying weakness, especially given that some authors such as Vatn (2009) argue that one of the distinctive strengths of deliberative approaches is that they lead people to reason according to "We-rationality", as opposed to "I-rationality". It is therefore important to stress how the interpersonal dimension comes into play in our approach.

Habermas's (1983) approach is of particular significance from our point of view. Habermas (1999) famously argued that Rawls's approach involved a

preemption, by the philosopher, of issues that have their proper place in public debates among citizens (this objection could be reformulated as stating that Rawls's answer to the *role of the analyst issue* is dubious). Habermas (1983) claims he overcomes this limitation because, in his approach, the content of the theory of justice is not the result of an explicit deliberation or reflection, but rather the result of a transcendental deduction (though of a weaker sort than the Kantian one)—that is, they are demonstrated to be conditions of possibility of all sorts of interactions mediated by communication in a society. As opposed to these so-called "moral" tenets, a given "ethical" notion can be consensually accepted in a given society or group, but can become a bone of contention when various groups meet or merge. Thus, in this approach, there can exist a dissensus between various individuals in the society on many issues. But when it comes to the subject matter of moral theory, any dissensus is bound to be ephemeral, because the very process of communication through which people try to settle their disagreements presupposes an implicit acceptance of the tenets that moral theory aims to capture. However, Habermas's purported solution through a transcendantal deduction has itself been criticized (Heath, 2001). In particular, it is not self-evident that there is such a thing as a determinate set of conditions of possibility common to all sorts of interactions mediated by communication in a society. Habermas's theory hence appears to be plagued by the same problem that he denounced in Rawls's theory: both wanted to prove that consensus will occur on certain issues, but none of them achieved to do it without surreptitiously taking a questionable stance on the role of the analyst issue.

Our approach turns the question of existence of a consensus into an empirical one. Consensus is achievable, without taking a questionable stance on the role of the analyst issue, in the situations where a consensual DJ can be obtained by all individuals in the society on a specific issue, or, a consensual DJ can be obtained on the higher-order issue of the procedure used to resolve lower-orders disagreements.

Based on the same logic, our approach also opens avenues to investigate empirically the conditions that are liable to have an influence on the stance that individuals take on a given issue, once they have taken into account all the possibly relevant arguments and counterarguments. Indeed, our framework is designed to make sure that the individual involved is exposed to all the relevant arguments and counter-arguments, but our prototypical protocol does not monitor all the aspects of the individual's psychological life that can have an influence on how she *takes into account* these arguments and counter-arguments. Some contextual elements, such as for example whether or not the individual trusts the analyst with whom she works, or whether the overall

setting encourages sincere discussions, might have an influence on the way the individual will take this or that argument into account, and individuals can vary in the likelihood that they will be influenced by these factors.

3.2 Empirical Challenges for the Future of DMV

The precise definition of DJs, together with the procedure outlined in the framework above, provide the building blocks to develop the studies needed to address the empirical questions pinpointed just above, which are key to a rigorous application of DMV but are currently neglected in the literature.

However, the above framework remains highly abstract, and numerous empirical challenges still need to be addressed to translate it into concrete protocols. Let us flesh out the most prominent of these empirical challenges, which should, in our view, constitute the core of future studies designed to strengthen the credentials of DMV and other deliberative approaches.

The strength of the proposed approach is that it allows to say something about the DM's DJ despite the fact that directly identifying the DM's DJ is hopeless. But this strength has a price: it holds only if the associated conditions (*Justifiable instability*; *Closed under reinstatement*; and *Boundedness*) are met. Therefore, in order to understand if and how DJs can be empirically captured, it is crucial to ponder on the meaning of these conditions.

From an empirical perspective, these conditions can be interpreted in two different ways, which call for two deeply different empirical approaches:

i as empirical hypotheses;

ii as rules governing the decision support process (rules that the DM can commit to abide by, or can consider to be well-founded safeguards for the proper unfolding of the process).

If the conditions are understood as empirical hypotheses, the challenge is to be able to test them. If they are understood as rules (*ii*), the empirical challenge is to design institutions and procedures whose functioning ensures that the conditions are met. These two challenges come on top of two other, even more fundamental, empirical challenges: the one of identifying the empirically relevant set of arguments with which the analyst will have to work in practice, and the one of empirically elaborating models of deliberated judgments (which should ideally have some degree of generality) and test them using the operational validity criterion.

To sum up, in this article, we have shown that the theoretical underpinnings of DMV are still plagued by two blind spots: the lack of a clear position on the

role of the deliberation and the *role of the analyst* issues. We have proposed a framework addressing both issues, thereby strengthening the theoretical foundations of DMV and other deliberative approaches. But we have also shown that this framework points major empirical challenges that deliberative methods should now address to entrench their credentials.

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