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fondata da Vittorio Sainati
XLIV/2024/1 (Terza serie XIX/1)

Topographies of Risk
Theoretical Approaches

Topografie del rischio
Proposte teoriche

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The Political Leeway in Policymaking: From Neurathian Underdetermination to the Precautionary Principle

1. *Introduction*

The aim of this paper is to propose a principle that can address both the presence of persistent uncertainty in policymaking and the risks of ignoring that uncertainty¹. The principle, the Auxiliary Principle (AP), is inspired by the writings of Otto Neurath, a social scientist and philosopher of science from the Vienna Circle. In contrast to dominant depictions of the Vienna Circle as apolitical and reductively empiricist, Neurath was both a socialist, and an anti-foundationalist about knowledge: in other words, he denied that our empirical data could ever provide us with a coherent, reliable picture of the world. Therefore, he believed that any rational decision-maker could not rely on their reason and data alone when selecting how to act, but must also employ an additional so-called “auxiliary motive” – a non-empirical element whose function would be solely to motivate the final decision.

The Auxiliary Principle presented here attempts to give the impetus behind Neurath’s auxiliary motive a structured formulation for policymaking under uncertainty. It states that decision-makers in policy contexts *should acknowledge the political leeway involved in their final decision*. Like the auxiliary motive, it is both a corrective to the risks of decision-making theories that strive to find solutions solely through reason, and a way to prioritise discussions on how an auxiliary motive itself should be selected, on who should ultimately make judgment calls regarding policy decisions and how.

¹ N.B.: I will not be using “risk” in its technical sense, i.e., as *quantified uncertainty*. Instead, I will be treating it as *the potential costs or hazards facing decision-makers in contexts of uncertainty*.

A second aim of this paper is to argue that the AP can replace the Precautionary Principle (PP) at the meta-level. The PP, a popular principle in international treaties, is also a response to decision-making under unmeasurable uncertainty. It asserts that action to mitigate certain threats is permissible even where scientific knowledge is inconclusive. I argue that my AP can, and should, come *prior* to applications of the PP, and that thus it is the more productive meta-principle to adopt, while largely preserving the PP's risk-averse intuitions.

Section 2 reviews Neurath's auxiliary motive; Section 3 discusses the AP in detail; and Section 4 defends its potential to substitute the meta-PP.

2. Neurath and the Auxiliary Motive

A cornerstone of Neurath's epistemology is the principle that it is never possible to completely bridge the gap between our evidence and our choices. Indeed, Neurath goes so far as to assert that rationalism's «chief triumph is the clear recognition of the limits of actual insight» (Neurath 1983, 8). *Pseudo*-rationalism, instead, «treats everything as calculable» (Neurath 1973, 442), thereby casting a mirage of certainty over our decisions. This movement means that whoever is interested in having input into these decisions will lose some ability to understand and influence them.

Given these supposed limits to insight or reason, how does Neurath think decision-makers, especially policymakers, should come to a decision when confronted with multiple acceptable options? This is where he introduces *the auxiliary motive*. The auxiliary motive is any purely structural supplement to decision-making, defined in terms not of its content but its *formal* relation with a decision: it must have «nothing to do with the concrete aims in question» (Neurath 1983, 4). One reasons and calculates to determine the best action for achieving one's goals; the auxiliary motive emerges after reason is exhausted and still, inevitably, more than one action remains available. What form exactly the auxiliary motive should take is the next question, one on which Neurath remains rather reticent. He gives several examples of auxiliary motives throughout history, including omens, prophecies, advice from powerful people, and majority voting, and says that «its purest form [is] a drawing of lots» (1983, 4) – though he concedes that lotteries lack political legitimacy. Yet in the lottery we see the auxiliary motive's “ideal” form: it is an additional, external element that cannot be calculated in advance. And in the lottery's rejection, we can distinguish between *the*

form of the auxiliary motive, i.e. of the mechanism that makes the final bit of decision; and *the prior mechanism that decides which form the auxiliary motive should take in each case*. For, assuming there can be no universal auxiliary motive (as Neurath clearly does), this latter process becomes as important as the auxiliary motive itself.

But how to choose, in each context, which auxiliary motive to employ? Neurath's answer is consistent: negotiation, particularly among those with local knowledge and experience, essentially local experts and stakeholders (Cartwright *et al.* 1996, 244-6). «Our scientific practice», Neurath writes, «is based on local systematizations only, not on overstraining the bow of deduction» (1946, 498). Thus, auxiliary motives should be selected not only for their practical usefulness in selecting an action, but also based on how they may reflect the preferences or ideas of a particular local context. Neurath's description of auxiliary motives – as functional, but not calculative, structural elements – suggests that, given general underdetermination, decision-making always also involves a *strategic* choice, or act of prioritisation, on what carries more justificatory weight in one's specific context.

3. *The Auxiliary Principle (AP)*

Inspired by Neurath's ideas, I propose the *Auxiliary Principle* (AP):

Auxiliary Principle – Given the persistent uncertainty when making policy, decision-makers should acknowledge the political leeway involved in their final decision².

In this section, I will unpack the AP's various elements.

The principle starts by assuming that there is «persistent uncertainty when making policy». This assumption simply refers to the idea that decision-makers will always face a degree of insurmountable and unmeasurable uncertainty around their options, including their exact probabilities, their side-effects, their ethical profiles, etc. That may seem relatively uncontroversial, yet it already challenges many standard decision-making strategies. Cost-benefit analysis (CBA), for instance, which will be my main foil to the AP, is a popular policymaking tool that compares policy options by calculat-

² The AP is not to be confused with the distinct “Neurath principle”, which refers to one of Neurath's theorems regarding “protocol” and “theoretical” statements in the context of linguistic epistemology (it is, incidentally, a good example of Neurath's anti-foundationalism).

ing their expected pay-offs, i.e., by translating all their future, probability-adjusted costs and benefits into a *present-day monetary value* that can be used for comparisons (see Weimer, Vining 2016 on CBA's entrenchment in policymaking). Though sophisticated discussions around CBA exist, in this paper I will assume this simplified, and still widely used, version of it. Various theorists have challenged CBA's approximations of unknown or uncertain values, arguing that the uncertainty we face cannot be reliably approximated, and thus that new decision-making tools are needed. For instance, some have referenced the concept of "great uncertainty", i.e., decision conditions with a particularly high and unmeasurable level of uncertainty (Hansson, Hadorn 2018, 1449), or "unknown unknowns", factors that not only we cannot quantify, but we cannot take into consideration (Grant, Quiggin 2013, 18).

The AP states that, given this persistent and not fully measurable uncertainty, «decision-makers should acknowledge the political leeway involved in their final decision». It functions like Neurath's auxiliary motive, as a *meta*-corrective to policy decisions, adding an additional structural element rather than suggesting specific content. The two concepts are distinct – while the auxiliary motive represents whatever non-calculative motivation bridges one's evidence and one's decision, the AP guides policymakers to acknowledge this bridge as political leeway – but they share a common function. Thus, the AP does not specify what *kind* of politics should be applied, nor what form its acknowledgement should take, only that one part of a well-made policy decision involves a recognition of a residual political element. Without this recognition, the decision-making process risks becoming partially concealed and thus more inaccessible to citizens.

The "political leeway" that the AP sees as essential to policymaking represents that degree of choice decision-makers face once reason is exhausted. By "political", I mean reflecting the general aims one has for social organisation and the distribution of power and resources in society. This distributional, big-picture understanding of politics can also include specific values and moral principles, like "maximise pleasure". However, I want to distinguish between the role these specific values and principles can have in measuring diverse options, and the political leeway that emerges from the holistic, persistent uncertainty around *these very measurements*. Discussion can and should occur while selecting which values to measure; but this selection – which CBA ostentatiously makes – does not replace the political judgment that the more general and persistent uncertainty around decision-

making requires, and that I am addressing with the AP. For instance, if one wants to reform a pension scheme, besides measuring and balancing the costs and needs of the average worker in the long-run, one can consider other, more holistic factors, like how risk should be distributed between differently vulnerable groups, how different pension systems affect workers' political power, and what ideological message different pension schemes may convey. These are just some examples of the broader, not strictly measurable political considerations that enter into a decision beyond the selection of values to measure. In sum, the AP's political leeway refers to the way *the residual choice that uncertainty opens up in policy decisions requires some holistic perspectives on social organisation.*

Next, what does it mean to "acknowledge" such political leeway in decision-making? The idea is that the residual political choice that lies behind a policy should be a fact that decision-makers are accountable for and over which general, public discussion can occur. Thus, the acknowledgement of political leeway refers to its *public* acknowledgement. Though the AP does not establish an exact formula for acknowledging this political leeway, by requiring such acknowledgement, it creates an opening for political discussion within policymaking.

As with the auxiliary motive, the AP's requirement to acknowledge political leeway ultimately blends into an argument for incorporating a space for negotiation within decision-making processes. For Neurath, these discussions over auxiliary motives, or the management of political leeway, cannot involve "reason" as such, since they are precisely a recognition of the limits of reason. Consequently, they are distinct from the kinds of discussions proposed by deliberative democrats, who see reason as resulting *from* deliberation. In part, this is because Neurath was working with a neo-positivist, not Habermasian, conception of reason, based on scientific statements of evidence and logical deductions. He did in fact share with deliberative democrats the idea that groups of people engaged in genuine negotiation and rid of erroneous preconceptions would come to share similar ideas and goals, and such a link is worth investigating further. Yet the insight I am taking from Neurath, in contrast to deliberative democrats, is that such discussion is not preferable because it incarnates an ideal of reason, but because it represents a politically preferable or legitimate way to address political leeway. A general consequence is that the AP may therefore more naturally align with democratic or community-based political decision-making processes rather than technocratic ones. For, even if experts are enlisted to make final decisions under the AP, this cannot solely be because of their greater knowl-

edge but also because of their *capacity for political judgment*, which is more open to discussion³.

Before discussing its application, I want to discuss more concretely the purpose of my principle. Succinctly, it is to *make the inescapable responsibility of political decision-making explicit in democratic discourse*⁴. Without this minimalist principle, pseudo-rationalist strategies pose risks to the political process. Policy evaluations in terms of a single metric, or that calculate a single recommendation, stifle the overall political side of a decision, the inevitable lingering indeterminacy and space for disagreement. This mantle of certainty makes it harder for accountability to be appropriately assigned, and for those interested in the political arrangement of society (e.g., citizens) to access the mechanisms for changing or defending it. Thus, even where an action chosen with the AP is identical to one chosen with CBA, the former encourages discussion over its political nature by more than the experts who can interpret the scientific data.

Now – what would it mean to actually apply the AP? I will use as case study the controversy in Europe surrounding the regulation of the Covid-19 AstraZeneca vaccine due to its link with rare fatal blood clots. The controversy began in mid-March 2021, when several European countries temporarily banned the AstraZeneca vaccine due to a few blood clot cases, even though there were few other vaccines available in those countries at the time. The European Medical Agency (EMA) subsequently conducted a review and reported on March 18th a «clear scientific conclusion» that the vaccine was «safe and effective» and «not associated» with blood clots (Mancini 2021). Most countries dropped their bans. Three weeks later, as more blood clot cases emerged, the EMA undertook a second review and concluded that «unusual blood clots with low blood platelets should be listed as very rare side effects» of the vaccine (Diver 2021). Thus, the question emerged: how should this minor, fatal risk be approached by policymakers?

Various writers and scientists defended a CBA-like approach, which

³ I lack space to imagine further what a space for public discussion over the NP might look like. Still, I would like to note that in order for the acknowledgment of political leeway not to remain idle, it should be established in concert with more general social practices, encompassing both politics and science. In other words, it would be counterproductive to isolate a moment of policymaking from the broader political and scientific practices that led to it and encourage public discussion only then. Given space constraints, my paper can only propose one element of a defence of greater politicisation (in the sense discussed here) of policy decisions. I thank an anonymous reviewer for mentioning this point.

⁴ I thank an anonymous referee for helping me formulate this point.

seemed to counsel only one solution: continued vaccinations. «We need to do the thing that reduces the burden of total risk in the community», a John Hopkins epidemiologist said (Horowitz, Mueller 2021). *Even if* a link existed between the vaccine and blood clots, the reasoning went, vaccinations should continue because the risk of Covid-19 was greater than the risk of blood clots (Gross, Pickard 2021). The UK especially based its policy decisions on a CBA-style calculus comparing risks of death, an attitude «driven by the science» (Cookson, Gross 2021). This purely “scientific” stance contrasts with the AP, but it may seem difficult to refute: when so many lives are at stake, shouldn’t we do what science says will save the most? Here, awareness of persistent uncertainty prompts one to apply the AP and acknowledge that there *is* still political leeway, not merely countries that follow “the science” and countries that don’t. Other effects that might influence what policy to choose besides calculable deaths include its long-term effects, its knock-on effects, and the distribution of its effects. Vaccine policy expert Ruth Faden noted that other things matter beside immediate reduction of deaths, like «public trust and ethical duty» (Fisher 2021). Public trust in vaccines was indeed a focal point throughout discussions on AstraZeneca (Leonhardt 2021). Weakened public trust could cause numerous medium- to long-term effects, like decreasing the number of people taking future vaccines, or decreasing trust in medical advice more broadly. But should this risk prompt countries to move slowly, investigating potential side effects to assuage citizens; or to avoid frequent policy changes, to not panic citizens? Experts argued for both (Cohen 2021; Larson 2021).

How, then, can policymakers apply the AP and “acknowledge” this political leeway? This example helps clarify the minimalist manner in which such acknowledgement can occur. The AP serves to correct certain attitudes seen especially in the UK, such as those quoted above – assumptions that “*total risk*” can be calculated or that a policy choice can be “driven by *the science*” without politics being involved. UK policymakers could have instead specified that their political priority was lowering total deaths in the short- and likely medium-term, framing this as a social judgment and not only a scientific imperative. I am not arguing that the UK made the wrong decision in continuing the roll-out of the AstraZeneca vaccine. Rather, it is the above attitude’s *framing* of the decision I reject, as it shuts down political discussion over the choice made, reducing the process to a purely scientific one.

The AstraZeneca case is interesting because UK policy changed a few weeks after it had rejected several European countries’ temporary bans as

non-scientific. Suddenly the UK recommended *against* AstraZeneca for young people, provoking an article in the *Financial Times*: “‘Slow’ UK response to AstraZeneca side-effects alarms experts” (Cookson, Gross 2021). The article criticises the MHRA for downplaying the blood clot risk in March, while its European counterparts responded with caution. According to «several scientists», «the regulator was too slow both to pick up on the reports of the adverse reaction and communicate its findings to the medical profession, the public and the media» (*ibidem*). Here, scientific opinion is levelled against what a month earlier it was enlisted to defend. By applying the AP, rather than continuing to treat policymaking as a realm that can simply follow “the science”, we can recognise the political nature of the choice policymakers face.

4. *The AP as Precautionary Principle*

I will now suggest that the AP can productively replace the PP at the meta-level. I should clarify this statement: I am neither arguing that the AP is the best formulation of the difficult-to-pin-down PP, nor that there is no place for the PP on a contextual basis (potentially, in fact, we can see it as one version of Neurath’s auxiliary motive). Rather I claim that defenders of the PP have good reason to consider the AP as a *prior* principle, which helps frame the use of the PP while also reflecting many of its meta-assumptions. Both the AP and the PP seek to correct standard decision-making methods like CBA that rely on quantifying all options even in the face of persistent uncertainty. Yet in so doing, I think the PP posits an unnecessarily formulaic principle that struggles to go beyond a general and seemingly non-binding intention for risk aversion. The AP, instead, offers a simpler principle that addresses both the PP’s meta-purpose and many of its actual tendencies. Exploring the overlap between these two principles is, I believe, a useful exercise in unifying, and thus rendering more effective, proposals for correcting standard decision-making theories.

A brief overview of the PP: it emerged in environmental policy in the 1980s and gained prominence in official treaties and documents shortly thereafter, particularly in the EU. One of its original formulations, still often cited, is from the UN Rio Conference on Environment and Development in 1992: «Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation» (United Nations

1993). This formulation reveals the PP's core: a degree of uncertainty combined with the possibility of serious damage, allows or requires – depending on the formulation – that action be taken to mitigate that dangerous possibility. Such a formulation may be acceptable for policy documents, but it leaves numerous questions unanswered, including the thresholds that designate a sufficient risk and an appropriate precautionary response. To frame the question more precisely, we should distinguish between two common understandings of the PP: one as a *meta-principle framing decision problems*, and the other as a *principle providing specific action-guidance for choosing between policies* (see Steel 2013). In my comparisons with the AP, I will be focusing on it as a *meta-principle* that recommends mitigating action against possible threats even in the face of scientific uncertainty (as mentioned, its more specific policy-guiding role can be seen as a useful decision-making principle at a *subsequent* step).

In comparing the AP and the meta-PP, one can begin by considering them both as principles that seek to address how action can be taken in the face of uncertainty. The AP responds to this uncertainty by focusing on how it opens up space for political leeway, the PP by focusing on how it justifies action against certain threats. Clearly, as a meta-principle, the PP requires a further definitional step than the AP: what qualify as threats sufficient to justify measures not yet justified by the evidence? And *which* precautionary measures are then justified? Attempts at setting strict thresholds have largely resulted in absurdities, above all the impossibility of justifying any particular threshold (see Clarke 2005, Christiansen 2019). But, on the contrary, leaving thresholds unspecified leads to what some critics have termed a dilemma: the PP is either too weak, invoked by policymakers on an arbitrary basis; or too strong, technically *always* relevant because without thresholds, most actions have at least a minimal chance of leading to total catastrophe (see Clarke 2005, Hourdequin 2007). This leads to a paradox whereby the PP would apply even against its own precautionary measures.

Another problem with the PP's definition, even for formulations that attempt to strike a balance between flexibility and flimsiness (Steel 2013) is that it seems unable to compare *between* different severe risks. The PP simply applies to *all* “serious threats”. Yet such comparisons are central to policymaking. Hansson recognises this shortcoming: the PP «loses its bite when risks of the same high priority are at conflict» (2020, 252). One might argue then, as Hansson appears to, that the PP only applies when there is already a clear-cut priority or risk; but this seems to limit it considerably: most policy contexts are too complex, considering also that what *qualifies*

as a “priority” is often open to discussion. And if policymakers can choose to apply the PP for certain risks and not others, changing the criteria of application as Steel suggests, then it seems that the PP plays a supplementary role to the real decision, which happens when the decision-maker decides whether the PP should be applied at all. For instance, in a 2018 judgment, the EU’s General Court determined that the PP dictates «giving precedence to the requirements related to the protection of those interests [related to public health, safety and the environment] over economic interests» (Bayer CropScience AG and Syngenta Crop Protection AG v. European Commission, T 429/13 and T 451/13 (2018)). These priorities may be justified, but they lead critics of the PP to claim that it ignores certain risks for the sake of others, even where the boundaries between types of risks are porous – mass unemployment, for instance, may impact health. And as Hansson writes, «the principle as such does not have such implications» (2020, 251).

If the meta-PP as such does not have these implications, then its circumscribed use implies, I believe, a prior application of the AP. Uncertain evidence does not *always* justify precaution – a political choice determines when this is the case. And if we accept the meta-PP’s circumscription to certain spheres – the environment and public health, then it is an open question whether such an overall approach is best characterised as risk-averse, or instead as *driven by certain political priorities* (e.g., environmental protection) that align with risk aversion in specific cases. In a sense, the former is a simplified gloss of a more flexible political process. So, even if circumscribed, the PP may unnecessarily reduce a political process with varying priorities to a generic, calculative principle.

The AstraZeneca controversy illustrates where the AP might be more sensible to apply, when precaution is exercised, than the PP. Several EU countries that temporarily banned the AstraZeneca jab in March invoked the EU’s PP (Peel *et al.* 2021; Milne, Mancini 2021). The ban was implemented not because of conclusive evidence revealing a link between the vaccine and blood clots, but because of the *possibility* of such a link. The problem with invoking the PP here, however, is that two important risks are in conflict – the risk of blood clots and the risk of Covid-19 deaths – and thus the most risk-averse measure is unclear. After all, the PP could also explain why, faced with rising deaths, the vaccines for Covid-19 were fast-tracked (EMA 2020). Therefore, to cite the PP in order to *delay* vaccine roll-out due to a very small risk of blood clots seems to invite the precautionary paradox. The situation bolsters PP sceptics, who accuse it of ignoring science. According to the AP, instead, the PP is ignoring, or not acknowledg-

ing, politics: certain countries made a political choice to exercise precaution towards the vaccine, rather than simply applying the PP.

They may have felt vindicated in April, when more countries imposed restrictions on the AstraZeneca jab. Indeed, in April the UK was criticised for its slowness in the article mentioned earlier, in which a professor at Bristol University studying the vaccine roll-out commented that the «far more cautious attitude to immunisation» of other European countries had resulted in their «greater vigilance in the search for side-effects» (Cookson, Gross 2021). I think his word choice is important: these countries took a cautious attitude *to immunisation*. There can be little consensus, however, on the most cautious attitude overall, considering deaths, hospitalisations, and trust in vaccines. As Simon Kroll, member of the UK's Joint Committee on Vaccination and Immunisation, said, «if [other countries] are working on the same data being presented in the UK, we have to assume their conclusions have been directed by other considerations than simply the figures of risk» (*ibidem*). This example reinforces the idea that using the AP, and investigating the unspoken political priorities lying behind policymaking, can help make sense of when the PP is invoked to begin with.

Besides being presupposed by the PP, I also want to suggest that the AP can actually successfully safeguard its risk-averse intuitions. This is because publicly accessible, more democratic political processes lead to risk aversion in themselves, even while not *requiring* it. In an interesting article on the PP, Som, Hilty, and Köhler lend an interpretation of the principle that aligns more with this idea of oversight over the political process than with risk aversion per se. Their reasoning stems in part from the kinds of risks decision-makers confront nowadays: ones marked by a severe and radical uncertainty that always suggests the *possibility* of acute danger while resisting easy quantification. In our fast-paced, technological, globalised world, many risks may only become evident in the long-term, or geographically distant from where they were created. Faced with this risk paradigm, the PP's purpose could be not to set specific risk thresholds, but to ensure that risk is minimised and monitored *overall* through a *better decision-making process*. Som, Hilty, and Köhler write: «The PP could be invoked to ensure a fair decision-making process as much as to prevent harm. Thus, instead of just waiting for scientific results, policy makers should aim for a fair and transparent decision process» (2009, 498). To the extent that multifarious risk can be managed cautiously, we should focus on keeping decision-making processes accountable and open to public scrutiny, rather than on setting rules for what counts as a cautious decision. An example of such a

«fair and transparent decision process» is, according to the authors, greater participation, «involving stakeholders in a dialogue» on the development of new policies (2009, 501). This view interprets the PP as a meta-framework encouraging policy decisions to be made in a transparent, publicly accountable manner that incorporates stakeholder participation.

It is not far off from the AP. Both principles focus on the *political process* of policymaking, rather than on its content, though they get there from different directions: the AP in order to formally acknowledge and open for discussion an inevitable indeterminacy in decision-making; Som, Hilty, and Köhler's PP in order to embed precaution in decision-making processes. Yet they reflect a similar core intuition: given the entrenched uncertainty around policy effects, policymaking structures should be transparent and accessible. The AP is the most minimal response to this demand, positing a need to recognise that a decision-making process is incomplete without a political decision. Som, Hilty, and Köhler's PP, instead, posits also that such socially accountable decision-making processes will be more socially stable and risk-averse and involve more compromise than ones that are *not* socially accountable and therefore may have less broad or long-lasting public buy-in. In pursuit of a precautionary principle, we have a principle akin to the AP.

Is there an example of this link between the AP and risk aversion? Does the AstraZeneca case support it? Not exactly. This is largely because, as I mentioned, in that case it is difficult to ascertain *what* the most risk-averse attitude is. Still, I will mention an example that may seem to refute my link between the AP and risk aversion: climate change. The “science” says that without mitigation, climate change will cause irreparable damage to our ecosystem and affect millions of human lives, and that urgent action is needed (see NASA, n.d.), but political action is slow or counterproductive. Shouldn't we *deny* the political leeway here, rather than encourage it? To this I will give two very brief responses: firstly, it is worth stressing that science does not give much indication of *what* to do about climate change; that will be a political decision. Secondly, it would be incorrect to automatically associate the AP with decisions (or inaction) of governments. The AP could help us call for, not *more science*, which is often already recognised by policymakers, but *a change of political priorities* (e.g., de-emphasising certain forms of growth?). These are, however, only final speculations, from a preliminary exploration of the AP.

In this paper, I have proposed and defended a new principle for decision-making under uncertainty, the Auxiliary Principle (AP). The AP makes the

acknowledgement of the political leeway that results from persistent and unavoidable uncertainty an essential part of policymaking. I hope to have contributed an interesting exploration of a new principle inspired by Neurath's ideas that will lead to new directions for the PP and suggest the connection between inevitable uncertainty in policymaking and the role of politics.

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Abstract

In this paper, I propose and develop the Auxiliary Principle (AP), which states that given the endemic uncertainty in policymaking, decision-makers always have political leeway in their choices, and that they should acknowledge it as such. First, I explain the ideas of Otto Neurath, whose writings on decision-making in conditions of epistemic uncertainty and whose proposal of an ‘auxiliary motive’ inspired my AP. Next, I explain the AP in-depth, including what its assumptions are and what its purpose is in decision-making under uncertainty: making the responsibility of political decision-making explicit in democratic discourse. Finally, I argue that the AP can be a useful substitution for the popular Precautionary Principle at the meta-level while preserving its risk-averse intuitions. I use the controversy around the regulation of the AstraZeneca vaccine for Covid-19 to illustrate my arguments.

Keywords: Otto Neurath; decision-making; uncertainty; risk; precautionary principle; policymaking; Covid-19.

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