The (Difficult) Interdependence between Empirical and Normative Research: Empirical Social Choice and the Fair Distribution of Health Care Resources

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Abstract: Fairness is a central principle for the allocation of scarce health care resources. Against this background the paper focuses on the general questions of how empirical work can be brought to bear on normative issues and, vice versa, how normative research can induce fruitful empirical studies. Relevant aspects are discussed with respect to an approach designated as ‘empirical social choice’, which aims to provide empirical evidence on the tenability of axioms characterizing different arbitration schemes. Different potential roles for empirical work are distinguished. It could be used to investigate the acceptance of normative ideas by laypeople, to identify researchers’ biases, to discover new normative questions or to complement theoretical approaches. However, scholars in the field of empirical social choice particularly claim that their studies reveal ‘ethical judgments’ and, thereby, provide input to an interpersonal reflective equilibrium. It is argued that the role ascribed to empirical work determines answers on four central methodological questions: First, should studies utilise hypothetical or real distribution problems? Second, who should be asked? Third, which perspective should be taken? Fourth, should quantitative or qualitative approaches be used? Finally, empirical work on the relevance of responsibility for one’s own health is considered to accentuate the main aspects.

Keywords: Empirical social choice, distributive justice, health care resources

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I. INTRODUCTION

Modern economic policy increasingly relies on evidence-based policy advice. Buch et al. (2013) compare the implementation of a novel policy instrument with tests of a new drug before its introduction on the market. Standardized tests are said to be necessary to avoid the risk of approving a drug with either insufficient medical effects or severe side-effects. Certainly, the analogy is incomplete since in particular RCTs (randomized controlled trials) have a much broader range in medicine than in social science. Yet this makes both risks even more relevant, rather than less, for many governmental decisions in various political fields. The present paper takes up this idea and focuses on how empirical studies can be brought to bear on normative issues and vice versa how normative research in the realm of fair distribution of scarce health care resources can induce fruitful empirical research. Relevant aspects are discussed with respect to an approach designated as ‘empirical social choice’ (ESC) by Gaertner (2009) and Gaertner and Schokkaert (2012), which explicitly intends to lead to sustainable arbitration schemes.

One of the most important duties of policy-makers nowadays concerns the provision and funding of health care. Many health systems are almost completely collectively financed. In any event in practically all societies there is a public health care sector. Both the proportion of governmental budget to be spent on the health system and the allocation within the system are the responsibilities of governments. In view of scarcity constraints there will be opportunity costs of government decisions. Either the non-health related shadow price of the resources devoted to health is relevant or opportunity costs of health care in terms of other health care, which remains unprovided, arises. The questions regarding the latter are of particular importance to the present concerns. They mainly focus on allocation or, synonymously, rationing, which generally denotes ‘any method to determine who receives what quantity of a scarce good or service’ (Breyer, 2013, p.8). More specifically, ‘non-price rationing’ is considered, i.e. a method that does not make use of the price mechanism and allocates scarce resources below the market price and often even at no charge. Furthermore, explicit rather than implicit rationing is concerned. While in the former case, society transparently endorses rules that precisely define ‘the circumstances under which certain persons can claim certain medical services’ (p.11), in the latter case either a global budget for the health system or local budgets for health care providers are
determined so that final allocation decisions have to be made at the local level (hence the term ‘bedside rationing’).\(^1\)

Rationing decisions in general, and those in the health context in particular, are characterised by three typical features which make them hard ethical choices (Daniels, 1993, p. 224). First, meeting the needs of one (group of) patient(s) will leave the needs of some others unsatisfied. Second, rationing decisions lead to denials of benefits to patients who have reasonable claims based on accepted principles of distributive justice. Third, these principles are too schematic to serve as adequate guidance for specific rationing decisions. Despite this third aspect, a cluster of moral principles subsumed under norms of fairness, is said to be pivotal for allocation of scarce health care resources. This also includes elements of procedural justice.

However, medical decision-making in general is flanked by a further plethora of principles and norms. For example, the famous ‘Georgetown mantra’ of bioethicists Beauchamp and Childress (2013) includes justice, but also requirements to treat patients autonomously, to avoid causes of harm (norms of non-maleficence) and to contribute to the patients’ welfare (norms of beneficence).

Whatever the merits of the several normative positions are, it is clear that they cannot be discussed independently of empirical issues concerning both the economic viability and the acceptability and justification of normative proposals. In particular, the relevance of acceptability and the need to appeal to the sense of justice as a matter of fact prevailing in society is often not fully appreciated. Thereby the interdependence between descriptive/empirical and prescriptive/normative analyses tends to be underappreciated as well.

Health policy-makers worldwide have to take their allocation decisions in a situation of growing financial pressure and increasing need for health care services caused by demographic shifts, epidemiological changes and rapid medical-technical progress. These decisions have severe consequences for the lives of the individuals concerned. They are demanding in terms of so called ‘enlightened morals’ of the alleged moral experts and even more so in terms of the moral convictions or mores of a society that provides some part of health care publicly. The risks health-policy makers face are related to those described for the introduction of a new drug: they should evaluate the effects of decisions to confirm that these constitute adequate means to given ends and do not cause any unintended harm.

\(^1\) Breyer (2013) also argues that the term ‘prioritization’ (or ‘priority-setting’) is a euphemism often used by medical officials either to apply a different word for rationing, which they understand as the withholding of necessary services, or to produce a rank order of services (viz. illness types, patient groups or treatment types) which, however, would only be a first step towards rationing.
Harm may arise on two levels. First, allocation decisions can be at odds with relevant current beliefs, opinions and attitudes of those being affected either as payers, (potential) patients or voters. Hence, information about what people want from their health system is an important input for politicians who seek re-election, health administrators who act as agents of their ‘customers’, and researchers who want to see their ideas put into practice. However, a second kind of unintended harm may evolve from such allocation decisions if they conflict with the limits of what is thought to be ‘morally permissible’ (Hausman, 2000, p. 44). A consensus on the first level can be based on ‘a number of bad reasons’ (Miller, 1994, p. 177) at the second level. Hence, the normative beliefs held by members of society should be subjected to critical scrutiny. For example, responsibility for one’s own health as an allocation criterion is often supported in polls, but may become less accepted after critical assessment.

Moral judgments collected from laypeople cannot substitute moral reflection and argumentation, as will be discussed later on. But they could serve as input for a process, which aims at justifying allocative decisions and – ideally – reaching a (wide) interpersonal reflective equilibrium (Rawls, 1971, 1974; Daniels, 1979). Hence, based on the two levels of harm described above, empirical work can either investigate the acceptance of decisions or collect potential justifications (Miller, 1994). In what follows, the potential interdependence between empirical and normative research in the context of allocating scarce health care resources is investigated. This question has already attracted much attention in various scientific disciplines and even led to new approaches such as ‘empirical ethics’ (Borry, Schotsmans and Dierickx, 2004; Richardson, 2002; Richardson and McKie, 2005).

It would go beyond the scope of this paper to give even a rough overview of different positions concerning the relation of empirical and normative work. Instead, I will focus on the ESC (empirical social choice) approach, which sets out to examine the ‘tenability’ of axioms formulated to characterize distribution mechanisms (Yaari and Bar-Hillel, 1984). This approach can be regarded as one systematic way to combine normative and empirical research to consider the risks mentioned initially and, therefore, it facilitates discussing specific methodological characteristics of normatively inspired empirical work.

Taking parts of the book by Gaertner and Schokkaert (2012) as a starting point, the paper is structured as follows: Section 2 contains further preliminary clarifications. Section 3 provides a first classification of the ESC approach and also briefly discusses procedural justice as an alternative. The focus of Section 4 is on potential roles ascribed to results obtained from ESC investigations. Section 5 discusses methodological consequences. Section
6 considers the example of personal responsibility for own health, explains related problems and concludes.

II. WELCOME TO BABEL: SOME TERMS AND NOTIONS

Numerous empirical investigations on distributive justice have been conducted, discussed and systemized in several disciplines including economics, law, philosophy, psychology, and sociology. It is no wonder that a multitude of terms exist to describe their objects and outcomes.2 Also, among distinct disciplines similar terms have different meanings. While many denominations are obvious, it is helpful for the following elaborations to regard some interpretations and relations of terms. I will consider values, preferences, principles and their plurality, and normative facts, respectively.

With respect to health and health care, several questions concern values and value judgments. For example, Hausman (2000, p.1) explains that the evaluation of health states depends on ‘views about what is good for a person’. Empirical studies on this evaluation form one major topic in health economics. However, questions about the distribution of burdens, gains or scarce resources, on which ESC concentrates, concern fairness values. Here, the classical welfare-economic distinction between individual utilities and social values is of particular relevance in the context of health care.3 Menzel (1999) explains that individual utilities characterize the well-being of the individual whose utility they are, but ignore the well-being of any other person or those derived from direct relations between individuals. In contrast, social values constitute evaluations of social states. Thus, individual preferences are used to obtain a measure of individual well-being, while distributional and other relational considerations are usually embodied in a social welfare function which takes up an ethical position. Certainly, individuals have also preferences about different social states. Harsanyi’s (1955) well-known notion of ethical (or moral) preferences is seen as types of social preferences which are to be distinguished from subjective (or egoistic) preferences. However, as will be explained especially in Subsection 4.3, many ESC researchers would agree that moral preferences should not be decisive for the form of the social welfare function.

2. The following list in alphabetic order is not complete, but may give an impression of the multitude of terms used in the literature: Action, aim, attitude, behaviour, belief, criterion, end, feeling, intuition, judgment, norm, normative fact, opinion, practice, preference, principle, reason, rule, value, and wish.
Theories of distributive justice, and conflicts between them, are manifold, yet especially empirically oriented researchers argue that these disputes can be traced to trade-offs between a small number of (families of) allocation principles, including equality, efficiency, desert, and need which have found their way into discussions on issues of distributive justice in the health economic literature. The classical conflict concerns the trade-off between efficiency reflected by the idea of maximizing total health benefits generated from resources allocated, and different notions of equality, which depend in turn on the ‘focal variable’ (Sen, 1992) being it health, health benefits, access to health care or something else. Principles of desert may also justify departures from equality, but they are based on previous actions or choices and, therefore, also contrast with forward-looking efficiency concerns. Finally, the needs principle makes it necessary to fully regard unsatisfied basic needs. Analogously to an absolute social minimum in income terms, Williams and Cookson (2000, p.1884) incorporated the achievement of a ‘decent minimum level of health’ as a side condition to other goals. However, different definitions of need are prevalent in the health economics literature. They include the severity of illness, any specific objective that is endorsed as being ‘worthwhile’ and effectively achievable, or the ‘expenditure required to effect the maximum possible health improvement’ (Hurley, 2000, p.91).

Each allocation principle demands a formal definition and a specific interpretation. Nevertheless, the assumption of a plurality of principles facilitates a useful tool to categorize both empirical findings and different justice theories. On the one hand, it is regularly observed that people make trade-offs between principles when asked to identify fair outcomes. Corresponding weights vary between contexts, being it different domains of public policy or distinct contexts within the domain of health care. On the other hand, from each normative concept a certain distribution mechanism or rule can be deduced, which could then be characterised, analysed and confronted with empirical findings. These rules may reflect (combinations of) allocation principles, although any high-minded justice theory is surely more than a specific (weighting of) principle(s).

4. General literature reviews can be found in Miller (1999), Scott et al. (2001), Konow (2003), Michelbach et al. (2003), Schwettmann (2009) or Konow and Schwettmann (2015). Comprehensive overviews for the health context are provided by Hurley (2000) and Williams and Cookson (2000). Furthermore, I distinguish between allocation principles and distributive justice principles, although they are often used synonymously. However, as I read it, distributive justice principles are formulated by a specific theory of justice, while allocation principles are more general. To give an example, Rawls’ difference principle can be seen as a distributive justice principle, whereas the principle of need might be the corresponding allocation principle. See Scott et al. (2001) for further elaborations.

5. See e.g. the summary by Williams and Cookson (2000) or the study by Cookson and Dolan (2000).
From the ESC perspective empirical work cannot give the final answer on questions of distributive justice. Nevertheless, as will be argued in the following sections, it is important to know which justice theory laypeople prefer, which principle(s) they wish to see applied or, at least, which kind of allocation rule they follow in relevant decision problems. But they would probably ask in return what the consequences of an application of a theory, principle or rule are and how a typical example would look like. They may imagine how they would act in a concrete situation or how they would feel as a person concerned. Also, they could think of potential exceptions or remember previous own or others’ decisions in similar or related cases. And indeed, all this is already a description of what empirical researchers regularly present and collect in their studies.

Güth and Kliemt (2010, p. 303) call corresponding insights ‘normative facts’ and mean by this ‘aims, ends, values as well as accepted norms and practices’. It might be helpful to structure these normative facts a bit more. An important distinction is between ‘people’s expressed sentiments […and] their revealed ones’ (Bar-Hillel and Yaari, 1993, p.59). While the former indicates what people ‘say ought to be done’, i.e. their judgments, beliefs or opinions, the latter denotes what they actually do, viz. their behaviour, actions or practices. Furthermore, empirical studies regularly ask participants to state or reveal preferences, express their feelings, or give their opinions. But Hausman (2000, p.44) points out that such observations alone are not sufficient to deliver ‘crucial raw materials in developing defensible answers to moral questions’. Instead, investigations on people’s understanding of moral issues and their reasons for judgments are necessary.

Finally, empirical studies on distributive justice have revealed great interpersonal heterogeneity of normative facts. At least three main reasons lead to this observation: First, different empirical methods reveal different normative facts. In this case, it is necessary to give good reasons for the empirical method chosen and to be aware of potential consequences. Second, a multitude of moral and non-moral motives apart from justice concerns exist and influence distributive decisions. Self-interest is surely a major bias of normative convictions. Thus, the difficult work is then to formulate a theory of distributive justice to distinguish between relevant normative convictions and self-interest. Third, people are actually heterogeneous with respect to justice attitudes, making context-dependent decisions and weighing allocation principles differently. This result has far reaching consequences for decisions about fair allocations of scarce health care resources. However, it is only valid if it is not due to either of the other two reasons just described.
III. EMPIRICAL SOCIAL CHOICE: A FIRST CLASSIFICATION

Empirical research on distributive justice in economics can be divided into two main branches, which have evolved rather independently over the last four decades (Konow and Schwettmann, 2015). On the one hand, behavioural or positive economics applies descriptive strategies and regards what ‘is’. In particular results of monetarily incentivised experiments have stimulated descriptive theories of social preferences, which inter alia include fairness concerns as well as related moral preferences, such as unconditional altruism or reciprocity which occasionally have also been labelled as fairness. On the other hand, normative economics uses prescriptive analyses and concerns what ‘ought to be’. In the corresponding empirical strand of the literature, mainly findings of self-reported surveys and vignette studies are used to investigate prescriptive theories of distributive justice. ESC is one such approach, which aims to impact normative theories about social choice applied to issues of distributive justice and related topics such as the measurement of inequalities (for applications to the health context see Bleichrodt, Rohde and Van Ourti, 2012; Tarroux, 2015) or voting behaviour (Regenwetter et al., 2007). It has to be noted that both the descriptive and the prescriptive branch have not only grown autonomously, but are often found to be strictly kept separated from each.6

Welfare economics and social choice theory have a normative claim. Inter alia they intend to specify or even substantiate ‘vague’ philosophical ideas by means of axioms and models, examine the consistency of philosophical theories and establish standards to evaluate social outcomes (Miller, 1994; Roemer, 1996). In general, the axiomatic approach has recently gained momentum and is applied to game theory and resource allocation alike (Thomson, 2001, for an overview). However, as Gaertner and Schokkaert (2012) point out, Luce and Raiffa (1957) have already described the intentions and advantages of the axiomatic method when it comes to the determination of an arbitration scheme, i.e. a rule which assigns each person in a distribution conflict a unique payoff. Although the authors had no empirical programme in mind, surprisingly their elaborations can be read as a preliminary description of the ESC approach, which set off about 25 years later with the seminal work by Yaari and Bar-Hillel (1984). According to Luce and Raiffa (p.121) ‘players are often willing to submit their conflict to an arbiter, an impartial outsider who will re-

6. See e.g. Miller (1992), Konow (2003) or Konow and Schwettmann (2015) for comparisons of distinct methods and results of both branches. Recently, some studies (e.g. Gächter and Riedl, 2006; Herrero, Moreno-Ternero and Ponti, 2010) have been conducted to facilitate comparisons of results of both branches and detected relevant differences.
solve the conflict by suggesting a solution’ (my italics). In fact, in normative approaches impartiality is seen as a seminal precondition to avoid self-serving biases of moral preferences (see Section 5.3 of this work). Luce and Raiffa continue that we ‘may suppose that the arbiter sincerely envisages his mission to be “fairness” to both players’. They suppose that the arbiter reports his or her own ethical standards if no ‘obvious’ fairness criterion exists in a distributive situation. However, other motives rather than ‘fairness’ may influence decisions.

Next, Luce and Raiffa (p.121-123) elaborate the central advantage of the axiomatic method in the realm of distributive justice:

‘Rather than dream up a multitude of arbitration schemes and determine whether or not each withstands the test of plausibility in a host of special cases, let us […] examine our subjective intuition of “fairness” and formulate this as a set of precise desiderata that any acceptable arbitration scheme must fulfil […]]. By means of a (small) finite number of axioms we are able “to examine” the infinity of possible schemes, to throw away those which are unfair, and to characterize those which are acceptable’ (my italics).

According to Gaertner and Schokkaert (2012) two main research programs are deducible from this description of the axiomatic approach. On the one hand, the logical connections between axioms proposed to characterise a unique (class of) arbitration schemes can be investigated solely with the help of applied mathematics. On the other hand, the fairness question cannot be solved mathematically. However, Luce and Raiffa use the unspecific notion of ‘our subjective intuitions’. Turning against a significant input of empirical studies on this question, some theorists have emphasized that ‘essential ingredients of a debate over normative issues are critical reflection and thorough assessment of the arguments being used’ (Bossert, 1998, p.283). Hence, a ‘vote among uninformed individuals’ should not suffice to settle an ethical issue satisfactorily. Such reservations are regularly articulated with respect to moral psychology, empirical (medical) ethics, experimental philosophy, and ESC.

Many authors in the field of ESC point out that their empirical findings are of relevance for the reflective processes in philosophical ethics, normative economics and policy. This is said to be due to the specific empirical method applied to elicit moral preferences. Here, the studies by Yaari and Bar-Hillel (1984) and Bar-Hillel and Yaari (1993) serve as the blueprint for subsequent questionnaire experiments. The authors confronted students with hypothetical allocation problems in different contexts, which were supposed to be
easily accessible for laypeople. The students were asked to solve the problems *justly*. The questions were theory-based in the way that different arbitration schemes characterized by specific sets of axioms lead to distinct allocations in the given situation. Bar-Hillel and Yaari (1993) clarify that they intend to consider an increased number of introspecting individuals and, thereby, interpret Luce and Raiffa’s (1957) notion of ‘our subjective intuitions’ in a very broad way.

It seems to be inevitable that the *ESC* approach just sketched provokes fierce criticism from both normatively oriented researchers and descriptive analysts. Hence, we need to elaborate two central issues: First, it has to be specified which role empirical studies can play in social choice and distributive justice. Second, each particular role requires, but also excludes, certain empirical instruments.

I will successively consider these aspects in the next two sections and also relate corresponding answers to the context of distribution of health care resources. However, before I proceed, a limitation of the *ESC* literature has to be pointed out which is of particular severity in the realm of health care distribution. Gaertner and Schokkaert (2012) admit that due to its consequentialist nature the *ESC* approach has rather little to say about procedural justice, i.e. the fairness of procedures by which distributive decisions come about. People regularly demand citizens, and especially experts and stakeholders, to be involved in a transparent decision-making process, which should be based on the best scientific evidence available. With respect to the allocation of scarce health care resources, Dolan et al. (2007) claim that the fulfilment of these requirements will lead to better outcomes (viz. it is a means to a given end), but also has intrinsic value. Additionally, it may increase the acceptance of outcomes of corresponding processes.

A vivid proposal with regard to procedural justice in decision-making about allocations in the realm of health care is the *accountability for reasonableness* framework suggested by Daniels and Sabin (Daniels and Sabin, 1998, 2002; Daniels, 2008). They start from the observation that reasonable ethical disagreement about the composition of the benefit package and appropriate allocation principles exists. Their proposal is to focus on procedural justice in terms of a fair, deliberative and participative process to guarantee legitimacy and fairness. Their list of characteristics of potential processes includes at least four conditions: publicity and transparency with respect to the allocation decisions including arguments used; relevance of reasons which may be fostered by stakeholder participation; revisability e.g. in light of new arguments; enforceability in the sense of existing regulations to ensure that the first conditions are met. Despite a growing interest in using
these conditions to evaluate decisions on benefit packages (Schlander, 2008; Fischer and Leidl, 2014) important reservations remain (see Walker and Siegel, 2002). First, if the starting point is a reasonable ethical disagreement, it is a strong assumption that a fair procedure will induce acceptance of outcomes. Second, stakeholder participation carries the risk of lobbying and domination of the debate by certain groups. Third, procedural justice alone is not enough although it can complement evaluation-by-outcome.\footnote{See e.g. Breyer (2009) for a similar argument. Based on a representative survey study and focus group discussions Wailoo and Anand (2005) and Dolan et al. (2007), respectively, suggest that people may be willing to trade-off procedural characteristics and outcomes.}

Procedural justice forms a challenge to welfare economics with its consequentialist focus. Meanwhile issues of procedural choice and fairness have started to find their way onto the ESC agenda (see e.g. Anand and Wailoo, 2000; Anand, 2001; Traub, Seidl and Schmidt, 2009). However, in what follows I will stick to the consequentialist approach which still dominates the bulk of this literature.

IV. WHICH ROLE FOR EMPIRICAL WORK – AND WHICH NOT?

In their subsection 2.1, Gaertner and Schokkaert (2012) present arguments in favour of ESC. Since they mainly try to defend this approach against objections of normatively oriented researchers, they start from ‘easily acceptable arguments’ (p.7) towards more constructive, but also more controversial ones. I partly follow their structure and begin with \textit{seemingly} easy-to-digest roles for empirical work with a special focus on the health context. Afterwards, I elaborate on the application of the concept of an interpersonal (wide) reflective equilibrium (Daniels, 1979; Miller, 1994) in the ESC literature. Finally, it is noted which roles are not ascribed to empirical work in social choice.

\textbf{4.1 Application, prevention, discovery, and complementation: Easy-to-digest roles?}

New policy instruments should be acceptable and justified in order to avoid severe side-effects. According to Gaertner and Schokkaert’s (2012) first argument, any theory of justice finally aims to be applied. Therefore, empirical insights into the social and political environment are necessary to evaluate the acceptability of a presumably justified normative concept and to detect potential reservations among relevant groups of citizens or the general public. The authors claim that this role for empirical work should be most easily acknowledgeable by normative researchers as it solely concerns the explainability of a theory, but not its justification. In fact, Bossert (1998), who is critical about any major role for
empirical research in social choice, explains that even principles which are backed by strong ethical justification may take a long time until they are implemented by politicians due to insufficient public support. Hence, short-run compromises based on empirical findings could be helpful.

However, from my point of view this first role does not reflect a real interdependence between empirical and normative research, but rather concerns aspects of public choice and the process of political decision-making. The idea of an interpersonal reflective equilibrium considered in subsection 4.2 clearly departs from this one-sided influence. Furthermore, a considerable degree of paternalism is contained in Gaertner and Schokkaert’s (2012, p.10) statement that in order to ‘build a convincing case, a better insight into the structure of the uninformed opinions, that have ‘to be corrected’, may be extremely useful, even necessary’ (my italics). In Section 6, I will come back to the problem which is inherent in this correction-argument.

The second potential role for empirical input concerns the disclosure and, therefore, possible prevention of different biases. In the context of allocating scarce health care resources two biases are of particular relevance. On the one hand, normative and empirical scholars may subliminally be influenced by their own characteristics such as age, health history or social and cultural background. For example, Klingler et al. (2013) and Gerber-Grote et al. (2014) point out that the public and academic discussion about health economic evaluation in Germany is influenced by experiences during the Nazi regime, where parts of the population were identified as ‘life unworthy of life’ (‘lebensunwertes Leben’). This influence differs from the obvious possibility of a self-serving bias, which can always influence researchers and participants in experiments. On the other hand, researchers often describe allocation problems by typical examples, which may limit their perspective. The allocation of donated organs, people lying on rail tracks or sitting shipwrecked in a boat are often regarded cases. However, many real-life situations of scarcity, such as the allocation of treatment time or the determination of local budgets, are either less dramatic or less obviously dramatic.

A third argument in favour of empirical work claims that corresponding studies may help to discover an incompleteness of a theoretical concept in the way that it ignores important features of real-world cases. Yaari and Bar-Hillel (1984) revealed a strong context-dependency of respondents’ judgments in formally identical distribution problems,

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8. See e.g. Schwettmann (2015) and Williams and Bryan (2015) for a discussion of relevant contextual factors influencing the use of health economic information in priority-setting.
which was not stipulated in welfare economic approaches. In fact, some framing effects also fall into this category. For example, in the questionnaire study by Ahlert, Funke and Schwettmann (2013) the ordering in which participants faced decision problems had a surprisingly strong impact on exclusion decisions from medical treatment. Such findings may be taken up by theoretical reasoning and, therefore, lead to new ideas.

The fourth potential role for empirical studies is even more constructive. Gaertner and Schokkaert (2012) explain that some theoretical approaches explicitly demand empirical input as a complement. They refer to the example of Roemer’s (1993, 1998) concept of equality of opportunity. The so-called ‘responsibility cut’ (Schokkaert and Devooght, 2003), i.e. the line between effort characteristics, for which individuals should be held responsible, and circumstances, for which they should receive compensation, is of major importance. Roemer (1993) argues that the determination is a societal question and may provoke different answers in different societies. This claim widely opens the door for empirical input. In the realm of health care distribution, survey studies, such as Schokkaert and Devooght (2003) or Diederich, Schwettmann and Winkelhage (2014), may provide additional input into the underlying normative debate about the location of this cut.

More generally, frequently several axiomatically described solutions to a given problem exist, each of them satisfying only a subset of desirable axioms. Similarly, different allocation principles often come into conflict. Gaertner and Schokkaert (2012, p.14) explain that more comprehensive theories may intend to arbitrate these conflicts and, for example, propose different weights to distinct allocation principles. These theoretical approaches still need to be ‘justified on philosophical grounds, and not on the basis of the opinions of the citizens themselves’. However, as long as such a more complete theory is absent, normative concepts may exist, which respect opinions and individual preferences regarding such trade-offs.

To summarize, these four arguments assign an increasingly prominent role to empirical work in social choice. However, many researchers in the field of ESC go one step, albeit not two steps, further as will be detailed in Subsections 4.2 and 4.3, respectively.

4.2 Interpersonal reflective equilibrium and empirical social choice

Yaari and Bar-Hillel (1984) proposed a methodology which enables them to incorporate empirical findings into the model building process. In fact, they picked up the basic structure of the axiomatic approach to distributive justice, as described e.g. by Luce and Raiffa
(1957), and explicitly relate their own approach, which serves as the basic recipe for various ESC studies, to the Rawlsian (1971) notion of a reflective equilibrium. The implicitly assumed role for empirical work goes beyond the arguments presented in Subsection 4.1. Gaertner and Schokkaert (2012) interpret this new role in the way that empirical findings are now ‘essential’ for theories of justice, a position also held and defended by scholars such as Miller (1994) who describes a close interdependence between normative and empirical research. Hence, I will first briefly sketch their interpretation of this interdependence and, afterwards, describe the model-building process suggested by Yaari and Bar-Hillel (1984) in some more detail.

Miller (1994) considers two opposing questions. First, he asks why empirical research has to rely upon justice theories. His answer is that social scientists who observe behaviours and practices or survey beliefs need to know whether the object of their interrogation is indeed justice. I will come back to this aspect in Subsection 4.3. Second, Miller elaborates why normatively oriented scholars should be interested in empirical research. He refers to the Rawlsian concept of a reflective equilibrium. Accordingly, a process of moral deliberation is described in which a person moves back and forth between ‘considered judgments’, i.e. particular beliefs and intuitions about justice in a specific case, and ‘general principles of justice’, e.g. the two principles that would according to Rawls (1971) be chosen in the ‘original position’. In case of a conflict, the person may either specify, refine, or even discard the principle if it sharply contradicts the considered judgment, or may revise and correct his or her initially considered judgment if the arguments in favour of the principle are strong enough. If principles and considered judgments come into correspondence, a reflective equilibrium is achieved.

According to Miller (1994) the notion of considered judgments is crucial for empirical work. Only those beliefs about justice (or injustice) are treated as considered judgments which are free of emotions and personal interest, and of which the individual is confident about. Also, beliefs should be free of any contradictions and not be based on factual errors (see e.g. Daniels, 1979, for further potential distortions). Hence, Miller asks how to evaluate whether beliefs in fact fulfil these requirements. He proposes to widen the focus of Rawls’ individualistic perspective, to compare the relevant individual beliefs with those

9. I assume that readers are familiar with the basic components of Rawls’ theory of justice. Here, only a small abstract is needed. The main source is Rawls (1971). The procedure towards a (wide) reflective equilibrium has been clarified by Daniels (1979).
of others and, if there is disagreement, to elaborate underlying reasons. Thus, acceptance of judgments is important, but justification should be the main focus of empirical inquiry.

A second argument of Miller (1994) in favour of empirical input concerns Rawls’ (1993) notion of ‘public justifiability’. Miller (p.181) explains that ‘a valid theory of justice must be one which the citizens of a well-ordered society can justify to one another using only commonly accepted modes of arguments’. Hence, rather than focussing only on the implementation of a theory – as was the case in the first role explained in Subsection 4.2 – justifiability is now an ethical precondition. This aspect can be related to Rawls’ (1993, p.306) interpretation of the ‘original position’, in which individuals are supposed to be guided not only by a ‘conception of rational choice as understood in economics or decision theory’, but also by ‘norms of reasonableness’ which make the individual propose only those principles that are acceptable to all people with a ‘sense of justice’ once the veil of ignorance is lifted (Rawls, 1971). Here, Miller (1994) argues that this reasonableness also leads to the interpretation of the reflective equilibrium as an interpersonal equilibrium with respect to the beliefs of distinct individuals.

Rawls’ sophisticated notion of a sense of justice can roughly be interpreted as a kind of moralistic common sense of the members of a society. There is an overlap of this idea with Elster’s (1995, p.98) common-sense conception of justice which encapsulates the justice principles held by laypeople who have thought more deeply about the decision problem presented to them.

Consequently, justice theories can be interpreted as a ‘dialogue between the theorist and the public’ expressed by the common-sense notion (Gaertner and Schokkaert, 2012, p.17). In fact, this already sketches the basic intuition of the model-building process underlying the ESC approach introduced by Yaari and Bar-Hillel (1984, especially p.2-3). In a first step, a set of axioms is formulated to express desired properties of a distribution mechanism, which may be reflected by a social welfare function. Next, with the help of applied mathematics the questions of existence and characterization of those mechanisms satisfying all of these axioms have to be answered. If no such mechanism exists, the initial set of axioms has to be revised. If several mechanisms are identified, they have to be examined in order to determine additional properties which may help to distinguish between them. These additional properties are then tested for their tenability. If they are found to be untenable, the set of axioms is revised once again, whereas in the case of no further revisions a state of equilibrium is reached.
The relation between the notion of a reflective equilibrium and this iterative procedure via self-corrections and revisions is obvious. Economic theories, expressed by sets of axioms and corresponding distribution mechanisms, take the role of Rawls’ general principles, while answers by respondents in adequately structured questionnaires are said to be based on ‘ethical judgments’, which then replace the ‘considered judgments’ in Rawls’ notion. However, it is an advantage of the axiomatic approach to disentangle complex normative conceptions and to focus on axioms reflecting their specific characteristics rather than on the entire theoretical notion.

Again, it is the test of the *tenability* of these axioms and distribution mechanisms from which a demand for empirical work arises. Yaari and Bar-Hillel (1984, p.3) argue that any theory of justice has to be evaluated by their performance when confronted with evidence. In the present case, evidence is provided by ‘moral intuitions’ and ‘ethical judgments’ usually made by thoughtful, impartial and unemotional individuals. The similarity to Miller’s (1994) interpretation of considered judgments described already in this subsection is apparent. In their later work Bar-Hillel and Yaari (1993, p.59) also pronounce that their approach solely focuses on ‘ethical notions in people’s minds – not their actual behaviour’. Furthermore, although the authors do not state it explicitly, they obviously see the notion of a reflective equilibrium as an interpersonal conception and, again, come close to Miller’s interpretation.

Nevertheless, even confirmed empiricists like Bar-Hillel and Yaari do not deny the central role for normative elaboration and philosophical reflection which has so firmly been defended by researchers such as Hausman (2000) in the context of health. Ethical judgments are seen as guides for evaluating the tenability of axioms or distribution mechanisms. But it is certainly possible – and often more reasonable – to keep to general principle and discard the considered judgment in a specific context. This would be in line with Elster’s (1995, p.94) argument that empirical studies may ‘shape the structure and the focus of the argument’ though they should not substitute for arguments.

It seems that this thinking has also gained momentum in the field of health economics in recent years. For example, Tsuchiya and Dolan (2009, p.157) conclude from their study on the acceptance of different equality notions in the context of health care distribution that ‘robust violations of particular axioms in the SWF may lead to some of those axioms […] being relaxed in certain contexts’. This is a very careful statement compared to many others in this literature where researchers more often hold a positivistic view on is-
sues of distributive justice and want to finally decision problems by empirical work.\textsuperscript{10} Thus, it is also advisable to summarize what empirical work should \textit{not} do.

\section*{4.3 Limitations of empirical work}

Gaertner and Schokkaert (2012) use Miller’s (1994) elaborations to develop a fifth argument in favour of \textit{ESC} in an area which is usually dominated by normative thinking, viz. social choice and welfare economics. But Miller explains in similar depth why empirical work should be based on a normative justice theory. This forms a first limitation to empirical work. Sociologists and social psychologists doing research on justice issues are supposed to be the most likely contestants to this view. They ultimately focus on allocative behaviours, but also regard practices and beliefs. Miller argues, however, that they still need a normative theory of justice to know whether distributive judgments are based on justice or on other motives. This knowledge may help them to make predictions in cases of changing circumstances or new information.

A second limitation results from the fact that \textit{ESC} is about eliciting values and moral norms. Of course, the measurement of individual preferences and well-being forms a major topic in health economics and is heavily influenced by normative debates (see Hausman, 2000).\textsuperscript{11} However, issues of social choice and distributive justice only concern social or ethical preferences. Surely, they may – and regularly do, incorporate information about individual preferences. These are arguments of the social welfare function. But the form of the social welfare function is not to be determined by individual preferences, it should reflect ethical preferences. Gaertner and Schokkaert (2012, p.152) critically remark that many health economists ‘believe that both individual and social values should be based on preferences’ and that ‘empirical (survey) work on social preferences can give the final answer to the question of how to specify an ethically acceptable social decision criterion’ (p.142). Examples can be found in Dolan (1998) or Johannesson (1999). However, this is not the position \textit{ESC} researchers take. They state that distributional considerations

\textsuperscript{10} I thank Erik Schokkaert for elucidating this important point to me once again, although Gaertner and Schokkaert (2012) are already very clear on this issue.

\textsuperscript{11} Health economists have been very active in developing methods to elicit preferences for both the evaluation of health states and the distribution of health care resources. The method of person trade-off (PTO) is most popular and typically asks respondents to compare the ‘social values’ of different health care interventions from the perspective of the impersonal decision-maker. Nevertheless, severe theoretical limitations of this method are acknowledged even in the health economic literature (Nord, 1995; Nord et al., 1999; Doctor, Miyamoto and Bleichrodt 2009).
should not follow from individual preferences on distributive issues (see Fleurbaey et al., 2013).

Hausman (2000, 2002) also discusses the view that answers to questions about the fair allocation of scarce health care resources can finally be answered by the beliefs of the (majority) of the target population, being it (potential) patients or premium payers.\textsuperscript{12} The arguments raised by Hausman (2000, p.39-40) against this position are helpful to further explain the limits of empirical work. First, an ethical position is not right just because the majority of the target group agrees or because it displays a ‘social consensus’. Here, Hausman uses slavery, ethnic cleansing or female infanticide as typical examples. The distinction between acceptance and justification becomes apparent. Second, he asks how to define which groups are decisive and how to settle disagreements between different decisive groups. Third, it remains an open question regarding what happens if no consensus can be reached. In Miller’s (1994) and Yaari and Bar-Hillel’s (1984) interpretation of a reflective equilibrium a reconsideration of either the justifications of each position or the set of axioms would be possible. Nevertheless, this demands insights into underlying reasons for individual judgments. Fourth, a social consensus would always be right and could not be contested by minority views. However, each process towards a reflective equilibrium should enable the researcher to carefully investigate reasons for moral disagreement. Fifth, social consensus on moral issues is based on today’s accepted moral views which in turn may depend on past arguments raised by reformers. Such an evolution would be hindered by a focus on majorities. Finally, Hausman (2002) asserts that concerns of the population should not be ignored when deciding on the health system. However, he points out that patients and premium payers are not better able to state what is morally right or wrong only because they are concerned by the decision.

From my point of view Hausman’s (2000, p.41) position that ‘those addressing ethical questions concerning health policy should defer to good argument, not to mere consensus’ is not at odds with the interpretation of the reflective equilibrium in ESC. In contrast, it sets clear limits to the usage of empirical findings beyond the five roles described in

\textsuperscript{12} Hausman (2000, 2002) calls this view ‘empirical ethics’, but points out that this extreme variant is not defended by prominent representatives of this approach such as Nord (1999), Richardson (2002) or, later, Richardson and McKie (2005).
Subsections 4.1 and 4.2. Each of these roles has specific implications for the empirical methods applied to create the raw material needed.

V. METHODOLOGICAL CONSEQUENCES

The empirical method applied by Yaari and Bar-Hillel (1984) has already been sketched in Section 3: Students participating in questionnaire experiments are confronted with abstract, hypothetical decision problems in different contexts. They are asked to take the position of an outside observer and to allocate a given resource justly between different (groups of) individuals. The given situations are structured in the way that distinct distribution mechanisms characterised by different sets of axioms lead to different allocation proposals. Yaari and Bar-Hillel claim that these methodological aspects follow from the interpretation of a reflective equilibrium to provoke ethical judgments of laypeople which are meaningful for the model-building process in social choice theory. In this section I focus on methodological choices partly discussed by Gaertner and Schokkaert (2012) which I assess as particularly relevant for respective studies on the fair allocation of scarce health care resources.

Nevertheless, some preliminary words on the general setting of such studies are helpful. According to Gaertner and Schokkaert (2012, p.23) ESC studies use a *quasi-experimental approach*. Rather than asking people directly which principle should be applied in a given context, respondents read specific stories describing hypothetical real-life problems and are asked to select from a given set of solutions the one they judge most fair or just. Additionally (or alternatively) they are given the option to make their own proposals. This fits perfectly to the discovery-role of empirical work described in Subsection 2.1. Different randomly selected participants receive systematically varied problems so that distinct response patterns can be related to these manipulations. This specific approach is said to be able to reveal useful ethical judgments and intuitions to investigate the tenability of axioms and distribution mechanisms.

A related issue, also mentioned by Gaertner and Schokkaert (2012), concerns the distinction between *ethical intuitions* and *reasoned opinions*. The answering of a single decision problem primarily sheds light on intuitions. In contrast, facing a sequence of variants of a basic situation induces subjects to think about differences, reflect on their own

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13. Further discussions about limitations of empirical work in relation to normative concepts in the realm of distributive justice in health and health care can be found e.g. in Menzel (1999), Hausman (2000, 2002) or Walker and Siegel (2002).
14. Note that there is a strong relation of this approach to corresponding vignette studies mainly applied by sociologists and social psychologists. See Konow (2003) for further elaborations.
reaction to these variations and, thus, provide reasoned opinions. Of course, the latter proceeding carries the risk of manipulating the way a respondent thinks about a problem. However, reflected, thorough and informed answers may be helpful, even necessary, if trade-offs between allocation principles or distribution mechanisms are regarded. Hence, in the requirements for considered judgments mentioned in Subsection 4.2 have to be met. In particular, respondents have to take their tasks seriously and think intensively about the matters presented to them (see also Elster, 1995).

The study reported by Ahlert and Schwettmann (2015) provides an example. Each respondent received a sequence of 16 systematically varied allocation problems and was finally asked to verbally describe the allocation rule he or she had developed during the experiment. Answers revealed that subjects were aware of different features of the problems and were able to describe and consistently apply sophisticated rules. Furthermore, in a survey of the general public reported in Diederich, Schwettmann and Winkelhage (2014) participants regarded different potentially health-damaging behaviours and stated whether corresponding individuals should contribute more to possibly higher health-care costs. Obviously, subjects differentiated among these behaviours so that further insights into preconditions for the consideration of personal responsibility could be gained.

I turn now to four important methodological issues of ESC studies in the context of health and health care.

5.1 Hypothetical or real distribution problems?

Bar-Hillel and Yaari (1993) put the distinction between expressed and revealed sentiments described in Section 2 at the centre of their argumentation. Usually laboratory experiments with subjects driven by self-interest are distinguished from questionnaire experiments focussing on the impartial spectator perspective. From my point view this is misleading. On the one hand, questionnaire experiments on distributive justice may also create real decision problems. For example, in the study by Ahlert, Funke and Schwettmann (2014) a payment scheme was introduced to impose monetary costs on departures from a utilitarian distribution mechanism in either a health or a ‘neutral’ context. On the other hand, laboratory studies may induce subjects to act as ‘quasi-spectators’, i.e. third parties whose decisions have actual consequences for others but not for themselves (Konow, 2012). Hence, the main focus should be on the distinction between hypothetical (non-incentivised) and

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15 Konow (2012, p.334) compares this ‘quasi-spectator’ perspective with Adam Smith’s concept of impartiality which he calls ‘ideal impartial spectator’.
real (incentivised) problems. They lead to preferences which are either stated with the help of verbal answers or the choice of different hypothetical distribution options, or revealed via distribution behaviour.

A helpful related categorisation of descriptive empirical studies comes from Elster (1995). His first dimension concerns the place of an investigation where he distinguishes between artificial and real-life settings. The second dimension regards the object of the study, being it attitudes or behaviour. In artificial settings, attitudes are studied via surveys or experiments (Frohlich and Oppenheimer, 1992, provide a typical example), while other experiments clearly focus on actual behaviour of participants. In real-life settings, content analysis may help revealing justice attitudes, whereas real-life behavioural studies consider local justice such as processes of wage formation or donated kidney allocations. It should be noted that the latter category describes practices which are also subsumed under the notion of ‘normative facts’ by Güth and Kliemt (2010). Furthermore, in Elster’s (1995) classification, revealed preferences are usually observed from behavioural studies.

One challenge for monetarily incentivised experiments is the representation of different health states. Some researchers (e.g. Hennig-Schmidt, Selten and Wiesen, 2011; Hennig-Schmidt and Wiesen, 2014) have connected benefits in the lab to payments for real patients outside in order to investigate effects of different payment systems for physicians or ‘other-regarding behaviour’. Nevertheless, various further questions of distributive justice concerning people in need for health care seem to be difficult to reflect by monetary equivalents. A second problem already mentioned concerns the fact that actual behaviour is regularly determined by a combination of different motives including self-interest, various moral considerations or other norms. Gaertner and Schokkaert (2012) argue that corresponding findings are certainly illuminating if the aim is to predict actual behaviour. However, as explained in Subsection 4.2, this is explicitly not the case in ESC and its focus on ethical judgments.

Miller (1992) and Gaertner and Schokkaert (2012) list potential advantages and disadvantages of questionnaire studies, which use hypothetical distribution problems rather than real problems in the lab. Especially with respect to health, such studies enable the researcher to present contextually rich situations with clear links to real-life problems. Nevertheless, they face the problem that respondents may only state their ‘Sunday-best beliefs’ (Miller, p.557), i.e. the views subjects think they should hold according to some norm, and which may be in contrast to the beliefs they would adopt in practical situations. Additionally, respondents are more sensitive to contextual and framing issues and may
take distribution problems less seriously, since answers have no real consequences. Thus, Gaertner and Schokkaert suggest careful controlling for context and framing effect. They report from their experiments that respondents generally take non-incentivised questionnaire studies seriously if the task is not too complex. Hence, to summarize the choice between expressed and revealed justice sentiments is also a choice between potential Sunday-best responses and behaviour contaminated by various factors despite normative considerations.

5.2 Whom to ask?

The choice of the ‘right’ subjects to ask depends on the role ascribed to empirical findings. If one agrees with Yaari and Bar-Hillel’s (1984) or Miller’s (1994) interpretation of an interpersonal reflective equilibrium described in Subsection 4.2, a sample being representative for the entire society should be the ultimate choice. The idea of a dialogue between the theorist and the public, but especially the ethical precondition that a theory of justice should be justifiable to the citizens, implies the need for surveys being representative of the general public. Furthermore, corresponding results are certainly also useful for the other roles of empirical work explained in Subsection 4.1 including the identification of biases on the side of the researcher or cultural-dependent effects. Additionally, such findings can help to evaluate the acceptance of normative concepts before their political implementation. In this case, the characteristic of representative surveys as an instrument of political decision-making becomes visible.

Nevertheless, a focus on specific groups may be a reasonable alternative. Actual or future decision-makers are of interest if empirical findings are used to characterise real-life problems or to evaluate the acceptance of a theory of justice among those who should implement it. Furthermore, compared to the general public, samples of students are easier to approach, usually highly motivated, and better able to understand more complex situations. Hence, if the aim is to discover new features of real-world cases or to evaluate trade-offs between axioms or allocation principles, they represent a reasonable alternative. Consequently, Gaertner and Schokkaert (2012) speculate that especially these two roles combined with the advantages just described caused early studies in the field of ESC to focus on student samples. However, they also warn that students might see questionnaire studies — but of course also lab experiments — as a kind of exam if they either perceive or suspect a

16. The quote that ‘actions speak louder than words’ of Bikhchandani, Hirshleifer and Welch (1992, p.996) nicely expresses this reservation with regard to the credibility of stated preferences.
connection between the questions and the topics covered in their lectures. Hence, it is vital to avoid such perceptions, for example by approaching students at an early stage in their course of studies.

5.3. Which perspective should be taken?

Luce and Raiffa’s (1957) description of an ‘impartial outsider’ cited in Section 3, who is asked to solve a distribution conflict, already points towards the central role of this concept for justice theories. It has a long history in economic and philosophical research and is the working horse in the field of ESC. Yaari and Bar-Hillel (1984) create abstract hypothetical questionnaire situations to bring respondents into the position of a detached outside observer and to receive unbiased ethical judgments. This requirement seems to be both necessary and hard to achieve, especially in health contexts.

There exist by now a reasonable number of studies which have focussed on effects from the position of the decision-maker in a hypothetical situation. In ESC and health economic studies, this aspect is found to be of utmost importance. For example, in their study on rankings of income distributions Bosmans and Schokkaert (2004) distinguish three types of preferences related to different positions: ‘Direct ethical preferences’ of an impartial and sympathetic observer (ISO); ‘preferences behind a veil of ignorance’ (VOI), where a rational individual knows that he or she and all other members of society will end up in either income position with equal probability; and ‘purely individual risk preferences’ (PIR), where the focus is entirely on personal income. While the first position is related to Smith’s (1759) impartial spectator, the second case resembles the veil of ignorance scenario of Rawls (1971) or Harsanyi (1953, 1955). The main finding is that response patterns are different for all three positions, where the VOI case is between the other two.

The usage of distinct perspectives when eliciting preferences over allocations of health care resources is also prominent in the health economic literature (see Dolan et al., 2003, for a conceptual framework). For example, in their study on social values assigned to different health states, Pinto-Prades and Abellán-Perpiñán (2005) inter alia construct positions similar to those used by Bosmans and Schokkaert (2004). One of their findings is that their VOI treatment yields results almost identical to a self-concerned position under risk which is similar to the PIR perspective. However, the results of the person trade-off method (see also footnote 4 above) that applies the position of an impartial sympathetic observer clearly depart from these results. Hence, both streams of literature seem to reach surpris-
ingly similar results: Judgments of an impartial outside observer depart from preferences of rational individuals behind a veil of ignorance facing a similar distribution problem.

Nevertheless, many allocation problems in the health context provoke self-interested and biased answers. For example, the studies by Johannsson-Stenman and Martinsson (2008) or Álvarez and Rodríguez-Míguez (2011) show how difficult it might be to implement impartiality. Hence, corresponding empirical work should apply state-of-the-art statistical tools to control for influences of individual characteristics. Furthermore, the requirement of abstract hypothetical situations is a serious claim.

5.4 Quantitative or qualitative studies?

In the introduction to this section the importance of thorough, informed and thoughtful judgments has already been explained. Also, the importance of empirical work on the way to a reflective equilibrium via considered judgments – but also its limitations – have been considered in Subsections 4.2 and 4.3. According to Miller (1994) and Daniels (1996), the central role for empirical input concerns the justification of beliefs rather than the acceptance of principles. This would allow for an interdependence between empirical and normative research. Nevertheless, Yaari and Bar-Hillel (1984) focus almost entirely on quantitative rather than qualitative studies to evaluate the tenability of axioms and distribution mechanisms. Similarly, Gaertner and Schokkaert (2012) do not explicitly discuss advantages and disadvantages of qualitative work. However, from my point of view qualitative studies may complement quantitative work if detailed justifications of beliefs are seen as being helpful (as they are, I suppose). Furthermore, with regard to other roles for empirical studies, reasons for potential biases or any incompleteness of a theoretical concept may certainly benefit from thorough and careful quantitative work.

In the health economic literature corresponding qualitative techniques have gained momentum. They have proven to be a relevant additional tool to investigate distributive preferences regarding health care resources (see e.g. Cookson and Dolan, 1999; Dolan and Cookson, 2000; Baker, Robinson and Smith, 2008; Shah et al., 2012). In the field of ESC, Ahlert and Schwettmann (2015) identified distribution mechanisms with a combination of quantitative and qualitative instruments. Remarkably, these rules have not been characterized axiomatically before, so that such findings may have an impact on the model-building process described by Yaari and Bar-Hillel (1984).
In this section, I have focussed on selected methodological characteristics of empirical studies on distributive justice in the context of scarce health care resources. In general, the choice of appropriate empirical tools is not trivial. It should be justified and depend on the role one is willing to ascribe to empirical findings for theories of distributive justice.

VI. CONCLUSION: *EMPIRICAL SOCIAL CHOICE, HEALTH AND RESPONSIBILITY*

Finally, I come back to the determination of the responsibility cut. It has already served as an example for a complementary role of empirical work for theories of distributive justice in Subsection 4.1. To end this paper with a discussion about the principle of responsibility or desert has several reasons: The concept is illuminated in the social choice literature, many empirical results exist, impartiality is the Achilles’ heel, and a debate about the general usefulness of empirical results ignited by this allocation principle.

Some recent developments in social choice theory concern liberal egalitarian theories of distributive justice. They are all based on the conviction that public policy should provide equal opportunities for all people (see Fleurbaey, 2008, for an overview). Cappelen and Norheim (2005, p.478) describe one of the most prominent positions: Inequalities or costs that result from factors over which a person has no control ‘in the social and the natural lottery’, e.g. his or her genetic abilities, should be removed, whereas inequalities or costs that result from factors under the control of a person should not be compensated for. Factors in the first group are called ‘circumstances’, while those in the second in group are referred to as ‘choices’. Hence, this liberal-egalitarian approach provides answers to two major issues: First, the location of the responsibility cut is determined by ‘control’. Second, the consequences for the allocation of scarce health care resources are outlined. The latter fact is considered in the social choice literature by two independent principles: The *principle of equalisation* demands that individuals who make the same choices should also ‘be treated as if they were identical with respect to all factors outside their control’. Furthermore, the *principle of responsibility* states that individuals should be held responsible for their choices, albeit not for the consequences of their choices. For example, if people are thought to have full control over the decision whether to smoke or not, they should carry the *expected costs* resulting from their behaviour e.g. by a tobacco tax, but they should not be excluded from any necessary treatment (Cappelen and Norheim, p.478).
Empirical investigations may focus on several characteristics of this normative concept. However, such work on personal responsibility in the context of health and health care is in some way problematic. First of all, participants in questionnaire studies are seldom impartial if they face responsibility-relevant contexts. Often respondents either exhibit or consciously abstain from behaviours such as participating in dangerous sports or eating unhealthy food. Sometimes they even react in rather emotional ways to questionnaire situations. Hence, they are removed from the impartial, unemotional and disinterested position described in previous sections. Also, Breyer (2009) mentions the effect that people may subliminally favour groups which are more like them.

Nevertheless, if empirical and econometric tools are applied to control for influences of individual characteristics, results of corresponding studies may still be useful. The first role for empirical work described in Subsection 4.1 regards the acceptance of normative conceptions waiting to be applied. Hence, potential reservations can be identified at an early stage. Even more constructive for theoretical work are answers to the question whether individuals who are affected by responsibility-sensitive health policy instruments still support such measures. For example, Diederich, Schwettmann and Winkelhage (2014) observed that about 56 percent of the smokers in their sample being representative for Germany agreed to co-payments for smokers. Such statements may be a relevant input for some theoretical concepts. Norheim et al. (2014, p.18) summarize several normative ideas and state that it is not acceptable that people have unequal access to health care or face unequal financial conditions due to responsibility considerations, ‘unless this represents their values and preferences’.

A further potential problem may arise from attitudes which Olsen (2011) calls ‘moralistic healthism’. Two examples should suffice. In the study by Ubel, Baron and Asch (1999) 283 prospective jurors faced inter alia the hypothetical task to allocate 100 transplantable hearts between 200 patients who previously either displayed or did not display a specified potentially unhealthy behaviour, which had or had not caused their need for an organ. Patients with a possibly health-damaging behaviour less often received an organ even if the behaviour had no influence on the organ failure. Furthermore, in a questionnaire experiment by Schokkaert and Devooght (2003) students in Belgium, Burkina Faso and Indonesia were asked to decide on the coverage of treatment costs for two hypo-

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17. In Schwettmann (2013) I have collected and discussed arguments for and against the consideration of personal responsibility by using the example of a ‘fat tax’. The different positions summarized in the paper, but also the comments on the paper in the same volume show many relevant issues raise concerns.
theoretical lung-cancer patients, where the budget available did not suffice to cover all costs. Patient 1 was said to be a confirmed smoker, whereas patient 2 had never smoked. Treatment costs were higher for patient 1 than for patient 2. However, between 13.8 and 17.5 percent of respondents in different countries were willing to pay a lower amount for patient 1. The authors interpreted corresponding answer patterns in both studies as punishments.

Hence, the important question arising from these examples is: What to do with answers possibly ‘influenced by psychological mechanisms with rather doubtful ethical legitimacy’ (Gaertner and Schokkaert, 2012, p.164)? My impression is that our response to this question reveals which interdependence between empirical and normative research we finally wish to see. One option could be to anticipate such answers when developing a questionnaire and simply give people no possibility to articulate attitudes based, for example, on gender, race, religious conviction or sexual orientation. Richardson and McKie (2005) point out that such a strategy would reflect an improper degree of paternalism. Instead they propose to follow the approach of empirical ethics and to apply an iterative process of empirical research and ethical reflection. This process should be flanked by the ‘laundering of preferences’ proposed by Goodin (1986) so that they are able to ‘exclude those preferences that have nothing to contribute to social welfare’ (p.272) and to identify acceptable alternatives. However, Breyer (2009) asks who finally decides which preferences have nothing to contribute and which are acceptable, so that we are back to the criticism of paternalism. And Hausman (2000) insists that any overruling of preferences questions the entire approach. Furthermore, he clarifies that neither theorists nor health policy makers or the target population should be decisive. Values of laypeople should receive instead a relevant place within ethical reflection.

Some respondents in the two studies cited are willing to give hypothetical patients with potentially unhealthy behaviours even less than the principle of responsibility in liberal-egalitarian conceptions would suggest. Such ‘punishing behaviour’ should lead to new questions on which normative researchers may reflect. For example, ‘one can […] ask if (or perhaps when) this preference for punishment is a legitimate social value, or when it should rather be rejected’ (Gaertner and Schokkaert, 2012, p.199). More generally the two authors interpret such findings as an open invitation for normative theorists to go beyond their previous descriptions of distribution mechanisms and develop conceptions which indicate ‘under which circumstances which rules will (should?) be chosen’. One reasonable route for future research is suggested by the idea of trade-offs of competing allocation principles described in Section 2. For example, a further hypothesis could be that the re-
sponsibility cut is located by either of the existing normative concepts, but the decision how to incorporate this ascription in decisions about the distribution of health care resources is determined by other allocation principles, in particular the principle of need. Probably, this trade-off is implicitly concerned if liberal egalitarians point out that the illness regarded should not be life-threatening and that policy measures should hold people accountable for their choices, but not for corresponding consequences (Cappelen and Norheim, 2005, 2006).

So, what kind of contribution can the ESC approach generally make, i.e. which role should be played by beliefs about justice? It has been argued that questionnaire studies may not only test the acceptance of a normative concept before its application, but can be used to detect potential biases and discover new puzzles. However, the claim of ESC is even more ambitious. If a questionnaire study reflects trade-offs between axioms or allocation principles, and if it is well-thought-out with respect to methodological choices, advocates of ESC assert that their approach reveals ethical judgments and, desirably, offers reasons for them, which can be used as input to an axiomatic model-building process. Surprising empirical results of theory-based questionnaire experiments could stimulate normative thinking and lead to richer models which may then induce even richer questionnaires.

This process seems to be necessary in the health-policy environment initially described that is characterised by a strong pressure to make hard choices with respect to the allocation of increasingly scarce resources and in a political environment with highly involved stakeholders. Hence, there is need for evidence-based policy advice to avoid severe side-effects. The concept of an interpersonal reflective equilibrium applied by ESC researchers exhibits some typical characteristics of evidence-based policy-making: Contradictions should be avoided and proposals and instruments should be based on facts. Nevertheless, the main focus of ESC is on justification rather than acceptance of theoretical concepts. Although both the importance of considering what people want from their health system and the necessity to survey and respect individual preferences for health states is acknowledged, researchers in the field of ESC emphasize that empirical work on ethical preferences is unable to finally determine an ethically acceptable distribution mechanism. However, in the end the interdependence between empirical and normative may help normative scholars make themselves heard (better) by health-politicians.
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