**A new normative economics for the formation of shared social values**

Neil Ravenscroft, University of Brighton

[N.Ravenscroft@brighton.ac.uk](mailto:N.Ravenscroft@brighton.ac.uk)

26th July 2018

**Abstract**

There is mounting evidence that a new set of principles is required in order to form and express, rather than capture, social values for sustainability. This is because many policy questions are sufficiently complex that individual people do not – possible cannot – hold fully pre-formed values with respect to them. Thus, when people are faced with such issues, a process is required to enable them collectively to form and express a bespoke set of values that are shared. This process of shared social value formation can be understood as normative, to the extent that those involved participate in a process of ascribing values to others. This invites us to reconsider the role of normative economics, because it implies that both procedural and distributive justice are unlikely to be achieved through conventional economic logic and processes. The paper argues that the theoretical traditions that have juxtaposed positive and normative economics have been lost, such that rational choice has been progressively limited to the maximisation of economic surplus. This may be acceptable for some policy areas where the state and the individual dominate. However, the formation of social values for sustainability demands a composite approach that enables individuals to work together to form values with respect to issues about which they may have little immediate reference. The paper identifies five principles for establishing normative shared social values, relating to social units of analysis, procedural and distributive justice, dialectical decision-making and the development of Social Value Transfer (SVT) as a means of relating the shared social values formed and expressed in one context with those appropriate for a related context. The paper concludes with an agenda for research that can test, develop and refine the five principles for normative deliberated social values for sustainability.

**Introduction**

It is widely accepted that transition towards a more sustainable society is in part dependent upon an ability to link scientific knowledges - generated in fields such as sustainability science - with socio-political actions that foster sustainable outcomes. For Miller, et al (2014: p.239), this is about strengthening ‘… the role of values in science and decision-making for sustainability,’ particularly in terms of ‘… how communities at various scales envision and pursue sustainable futures.’ In their work, Westberg and Polk (2016) argue that this is about catalysing knowledge exchange between sustainability science and society in such a way that new composite, socially constructed, knowledges are generated that can inform the development of sustainability policy. This revolves around the resource trade-offs that society is prepared to accept in pursuit of sustainability (Anderson, et al, 2015, 2016), with the fundamental question being one of how choices are made about these trade-offs.

Conventionally, in neoclassical economics, this has been addressed by reference to markets, on the basis that they are a suitable institution for maximising the utility that can be gained from those resources. While it has long been understood that this approach is inadequate, as well as often inappropriate (Ravenscroft, 2010), the development of more appropriate approaches has only emerged in the last 20 years. In particular, the field of ecological economics has developed new ways of thinking that move away from the descriptive and positivist assumptions underpinning neoclassical economics towards a more normative interest in questions about what ought to be (Sagoff, 1998; Wilson and Howarth, 2002; Wilson and Hoehn, 2006; Pelletier, 2010; Kenter, et al, 2014, 2015; Stapleton, et al, 2014; Richardson, et al, 2015; Dryzek and Pickering, 2017; Strunz, et al, 2017). In particular, new ways have been sought for overcoming the limitations of neoclassical economics, particularly with respect to recognising that social values are both plural and shared (see, for example, Lien, et al, 2018). As such, ecological economics has offered new insights into the types of evidence required for decision making, particularly when sustainability is understood as a ‘post-normal science’ that is characterised by partial evidence that would in other – positivist - contexts be viewed as insufficiently reliable for decision making (Ainscough, et al, 2018). However, as Kenter, Bryce, et al (2016: p368) have observed, this means that we now need a ‘new valuation language’ that is capable of expressing, rather than simply capturing, plural shared social values that are formed in response to specific post-normal situations. While the need for a new language – and an associated value articulating institution - might be recognised, there is as yet little work on what form it might take (Sagoff, 1998; Wilson and Howarth, 2002; Wilson and Hoehn, 2006; Kenter, et al, 2011; Dryzek and Pickering, 2017). This is because, as Irvine, et al (2016) and Kenter (2016) have argued, some policy questions are so complex or socially sensitive that individuals are unlikely to hold fully pre-formed values with respect to them, meaning that a deliberative intervention is necessary to enable these individuals collectively to form and express their shared social values – reflecting in a normative sense what they determine to be the values that ought to be held by the group. In this sense, shared social values are those values that we form and express in common as a result of formal deliberative processes (Kenter, et al, 2015).

This recognition of a normative economic proposition is entirely appropriate to the study of shared social values for sustainability, since ‘… the idea of sustainability is intrinsically normative’ (Schmieg, et al, 2018: p.785). Indeed, the normative link between economics and sustainability lies at the core of both fields, in their concern with conceptualising the basis upon which resource allocation decisions are made (Pelletier, 2010). What differs is the purpose ascribed to such decisions, with the conventional normative proposition in economics being related to maximising surplus (Schmidt, 2017), while in sustainability it has a broader understanding related to inter- and intra-generational distributive justice (Miller, et al, 2014; Warlenius and Ramasar, 2015; Heindl and Kanschik, 2016). This asymmetry represents a schism between the theoretical traditions that inform sustainability science and those that inform economics. This offers a space in which to investigate how far a renewed recognition of the normative purposes that economics can have might provide new ways of not only identifying shared social values for sustainability, but also ways of operationalising a new approach to articulating these values in forms that are suitable for policy development. Indeed, it is apparent that a new normative approach to economics could have the capacity to encourage the formation of shared social values that harmonise with sustainability goals to the extent that the market is no longer constructed as the primary value articulating institution for sustainability.

The paper will commence with a review of normative economics and the formation of shared social values that attempts to bridge the spectrum between broad transcendental values and more place and time specific contextual values (see Kenter, et al, 2015; Raymond and Kenter, 2016). In so doing, the paper recognises the conventional distinction made between normative and positive (or descriptive) economics: that the former deals with distributive questions about what ought to be while the latter limits itself to largely value-free descriptions of contemporary economic phenomena. However, the paper argues that the distinction is less significant than the need to articulate the purpose for which economic analysis is undertaken. And this, of course, also means clarifying the value articulating institutions that are required to operationalise shared social values. The final substantive section of the paper identifies five new principles that are necessary for the development of a new normative value articulating institution that can form and express shared social values in ways that are appropriate to sustainability science, policy and practice.

**Reworking normative economics to form shared social values for sustainability**

Shared social values are fundamentally normative because they reflect values that we as individuals ascribe to others (Sagoff, 1988; Pelletier, 2010; Irvine, et al, 2016). These are typified by our attitudes to complex policy areas such as sustainability (Schmieg, et al, 2018), where we tend to have relatively little insight into our values (Bateman, 2016), meaning that we often take up deontological positions in which the values we ascribe to others are not necessarily consistent with our own self-interests (O’Neill and Spash, 2000). These ‘extra-personal’ values that we ascribe to others are nevertheless likely to be informed by our individual perspective – as far as we can determine it - and are thus likely to include both transcendental (general) and contextual (specific to a given situation) values (see Kenter, et al, 2015; Raymond and Kenter, 2016). But we are highly unlikely to perceive these ascribed social values as simply an extension of our own values, nor as an aggregation of the individual values of all those affected. Rather, in making normative judgements we are likely to identify a ‘hybrid’ position in which we believe that certain values ‘ought’ to be common, public, or shared, even if they are inconsistent with our own beliefs. Evidence from Raymond and Kenter (2016) indicates that this hybrid position is likely to be further modified by discussion with others. Consequently, as Sagoff (1988) and Pelletier (2010) have argued, such shared social values cannot fully emerge from standard neoclassical environmental economic valuation methods that seek to elicit and aggregate individual values, but instead require an alternative approach and new ‘rules of the game’ (Kenter, et al, 2016; Landsburg, 2007) that are (per)formed through new value articulating institutions.

As Landsburg (2007) has observed, the idea of developing new value articulating institutions is uncomfortable territory because such institutions will identify social values that are formed – and reformed - outside the economic models to which they will be applied. This is particularly the case for the normative criterion of distributional justice that is core to issues of sustainability (Pelletier, 2010). As Landsburg (2007) observes, this means that the new rules of the game will need to encompass plurality (O’Neill and Spash, 2000; Kenter, et al, 2015) by recognising that people may simultaneously care about the environment normatively (ie independent of its effect on them personally), subjectively (ie in full recognition of their own material well-being) and contextually (ie with respect to a specific situation). This corresponds with the value spectrum proposed by Kenter, et al (2015: p89) in which transcendental values influence contextual values which, in turn, influence how shared values are expressed. This suggests that the assessment of transcendental values may be key to developing new value articulating institutions although, as Raymond and Kenter (2016) have observed, there have been few studies of this type. As Raymond and Kenter (2016: p.241) argue, transcendental values – which are associated with ‘… ethical principles and desirable end states … that transcend specific situations’ – are important in terms of the social values of sustainability because they affect behaviours and influence how we view and use knowledge and evidence. Yet, as they go on to show, this does not mean that such transcendental values are necessarily a well-formed and stable platform from which to deliberate subjective and contextual values. There is, thus, a need to reconsider how we understand and work with normative economics and values.

Academic interest in normative economics has increased as it has become clear that markets do not always provide suitable institutions for making resource allocation decisions, and that maximising surplus is not always a suitable singular goal. While there is relative consensus that normative economics focusses on questions of ‘what ought to be or ought to happen’ (McQuillin and Sugden, 2012), there is much debate about what this means, particularly in terms of the relationship that economics has with concepts such as welfare, choice, norms, value judgments and policy decisions. This has led Mongin (2006) to propose the following understanding:

… the task of normative economics is to investigate methods and criteria for evaluating the relative desirability of economic states of affairs. This is a noncommittal statement because it does not say whether normative economics itself endorses the evaluations (and thus *makes* value judgments) or just explores the way of making them (and thus only *relates to* value judgments). Furthermore, it does not decide either whether a more desirable state is one involving more welfare, or more preference satisfaction. (Mongin, 2006: p. 20)

As this approach suggests, the factor that separates normative from positive economics is fundamentally an epistemic question about the extent to which any given analysis is bounded by an articulation of the purpose of that analysis. For Mongin – although not all economists (see Kolm, 2000) - it is not necessarily the purpose of normative economics to make judgments about relative outcomes, but it is its purpose to ensure that there is clarity about the desired economic state of affairs and certainty about how relative changes in this state of affairs are to be measured and reported. Thus, it is not that markets are necessarily inappropriate institutions for articulating normative values but, rather, that the appropriateness of the value articulating institution cannot be determined separately from the purpose of the valuation exercise (see, for example, Cory, 2006, who argues that markets operate on the basis of dual physiological motives rather than the singularity of self-interest that is conventionally attributed to them). Thus, conventional markets are suitable for some purposes, while in others we are likely to require a more sophisticated approach that acknowledges both distributive justice and biophysical limits (see Schmidt, 2017).

This suggests that the significance of turning to normative economics lies less in any claim that it may have to privilege distributive justice or scale concerns, and more in the need to articulate clearly the basis upon which the distribution of resources will be undertaken (Pelletier, 2010; Warlenius, et al, 2015; Heindl and Kanschik, 2016). Conventionally, of course, we have tended to deal with questions about distributive priorities and scale by intervening in market allocation mechanisms in order to reallocate surplus in particular ways. However, as Schmidt (2017) observes, this assumes that the cost of redistribution is negligible and that particular distributive outcomes are more important than the processes used to achieve them. As Schmidt (2017) demonstrates, neither of these conditions holds in many situations, because it is highly unlikely that an unfair or inequitable process can be rendered fair simply by changing who gets what, and at a cost that is less than changing the process in the first place. This is particularly the case where allocation is founded on transcendental values that are unlikely to be coherently expressed in conventional markets – if only because wealthier people will have more consumption possibilities and thus more behavioural choice than poor people (McQillin and Sugden, 2012).

Thus, as Kolm (2000) has argued, distribution questions cannot be separated from their procedural and ethical dimensions – because it is these very dimensions that identify the values required for decision making. Indeed, if we accept that the shortcoming of conventional economics lies in its failure to articulate a dominant ideology that is appropriate for addressing issues of sustainability, we must surely accept that a new normative economics must achieve the opposite and embrace the ethical dimensions of distribution. This, however, presents us with a number of problems related to our (lack of) ability to elicit values from individual people:

For at least the last three quarters of a century, both descriptive and normative economics have been based on assumptions about individual rationality. In descriptive economics, economic agents have been assumed to act as if seeking to satisfy preferences that are *coherent*—that is, stable, consistent and context-independent. In normative analysis, economic institutions, projects or policies have been treated as justified to the extent that their outcomes are ranked highly in the preference orderings that agents have been assumed to possess. (McQuillin and Sugden, 2012: p.553-4).

This issue is at the core of the separation between normative and positive economics: how can we justify placing the individual at the centre of resource allocation decisions when the questions being asked are normative ones about ecological sustainability and distributive justice (see Costanza and Folke, 1997)? The answer, for Pelletier (2010), Wilson and Howarth (2002), and for Massenberg (this issue) with respect to the interdependency of individual preferences, is that we cannot make such a justification and, instead, must view each individual as a member of a social unit whose well-being is inseparable from the well-being of every other (human and more-than-human) member of that unit. In this construction of economics, values must inherently be social, to the extent that there is no separate or over-riding self-interest to be elicited. And social, in this context, must mean debated and deliberated in a democratic forum to which all community members have access, for how else are social values to be formed and prioritised (see Lo and Spash, 2013)?

**Operationalising new valuation principles for (per)forming social values for sustainability**

The consequence of this line of argument is that there are three primary conditions for normative economics to generate social values for sustainability: that there is an agreed definition of distributive justice that will ensure social and ecological equity; that economic activity is understood in terms of social units rather than individual actors; and that the process for determining shared social values and, thus, the distribution of resources, is democratic community-based deliberation. These conditions map onto what Lo and Spash (2013) have described as the three interlinked preference objectives at the core of new deliberative approaches to valuation: moralisation (surfacing normative transcendental values that inform distributive justice); economisation (forming shared contextual values); and democratisation (debating outcomes and implications). Following Spash (2007), these deliberative approaches have been collectively referred to as Deliberative Monetary Value (DMV) and Deliberative Value Formation (Kenter, Reed, et al, 2016), and have informed a growing number of valuation studies (see, for example, Jobstvogt, et al, 2014; Orchard-Webb, et al, 2016). All DMV exercises consist of facilitated small groups of participants reflecting, discussing, learning and making judgements about the monetary valuation of environmental and other public goods or policies (Kenter, 2017). While there is no single established methodology, Kenter, Reed, et al (2016: p.195-6) suggest a four-stage deliberative process involving: acquiring information and forming reasoned opinions; expressing these opinions as part of dialogic engagement between participants; identification and evaluation of options; and ‘… integration of insights from the deliberative process to establish contextual values around different options, and determining a preferred option, which is well informed and reasoned.’

Such a process of shared social value formation is clearly dependent on a complex set of conditions that foster social interaction and learning for sustainability, which are linked to questions about how groups of people undertake envisioning exercises that allow them to relate co-formed social values to their own sustainability practices (Miller, et al, 2014; Kenter, 2017). A range of conditions has been identified in the literature, including inclusivity, freedom of speech, established group rules and facilitators who follow established operational procedures (Hansjurgens, et al, 2017; Kenter, 2017). Following Kenter, Reed, et al (2016: p.194), what is now required is an ‘… improving general understanding of how values are formed and enacted.’ The contribution that a normative economic perspective can make to this is the identification of a new set of valuation principles that can elaborate the institutional framework that is required in order to form and express shared social values for sustainability. It is proposed that there are five key principles of normative value formation:

1. That social units are the appropriate scale of analysis for forming shared values that are ‘extra-personal’ and reflect current understandings of distributive justice;
2. That there is procedural justice in the deliberation of shared social values;
3. That decision-making is a constitutive process with instrumental outcomes;
4. That a new dialectical approach to political decision making is required; and
5. That a ‘value bank’ is required, based on a new concept of Social Value Transfer (SVT).
6. ***That social units are the appropriate scale of analysis for forming shared values that are ‘extra-personal’ and reflect current understandings of distributive justice***

The condition that social values are formed by social units - such as groups or communities - requires us to stop thinking about individuals having the capacity to hold values on behalf of others as well as themselves (what Kenter, et al, 2015, have referred to as ‘other regarding values’). What is required instead is a more plural position in which individuals are part of social units that have the capacity to form normative values that comprise both transcendental and contextual elements. As Barbopoulos and Johansson (2016) argue, the normative goal of acting appropriately is based on the relative weight that people put on their moral obligation to do the right thing and broader social pressures to fit in and belong. For many, this coalesces around ideas of environmental justice (Martin, et al, 2013), understood broadly as the right of all people to enjoy a clean and healthy environment and to be protected from harm caused by environmental pollution (Agyeman and Evans, 2004). Schlosberg and Collins (2014: p.359) add that there should be a focus on ‘… local impacts and experience, inequitable vulnerabilities, the importance of community voice, and demands for community sovereignty and functioning.’

Shifting focus from the individual to the group also requires a new approach to determining the appropriate sample size. This depends upon whether the requirement is for stakeholder-based political representation, or a broader statistical approach to representation. In environmental management the emphasis is typically on stakeholder groups, whereas in deliberative democracy the emphasis tends to be on mini-publics or mini-demos which are quasi randomly sampled to represent the population (see Ranger, et al, 2016). So if the social unit is society as a whole, then it is a matter of either trying to represent everyone in society, or sampling a mini public to represent society (see Kenter, 2017). In terms of the basis of deliberation, the normative principle means that valuation exercises start from ethical questions about what is best for society (Sagoff, 1998). This means that the new principles must understand sustainability as a capital good, where trade-offs have to be made on the basis of social investment. Consistent with Irvine, et al (2016), this means shifting valuation exercises from a focus on the satisfaction of individual wants to one in which the gesture is associated with a shared sense of what society ought to do, in terms of distributive justice. This means that normative social values are essentially ‘extra-personal’, or plural, and beyond those of the individual.

1. ***That there is procedural justice in the deliberation of shared social values***

For many of those working in the field of sustainability, the concept of procedural justice carries equal, if not more, weight than distributive justice, on the basis that we can design procedures that are just, even if we cannot be sure that any given outcome will achieve distributive justice (Eggleston, 2004). Rawls’ (1971) theory of justice provides a foundation from which to develop an understanding of how procedural justice can be brought into the formation of shared social values related to sustainability. Central to Rawls’ thesis was the idea of the ‘original position’ as a state in which fair social decisions can be made that would have unanimous public support (what he termed perfect justice). In order to achieve this position, Rawls (1971: p.141) suggested that everyone involved in a distribution exercise has to be denied certain ‘… morally irrelevant information …‘such as their relative wealth, social status and position with regard to the resources to be distributed. In this way, everyone is in the same ‘original position’ and can thus make judgments free of their own individual self-interests. Several authors have tried to work with this, including Wilson and Howarth (2002: p.433), who have called for a ‘procedure’ that would ‘mirror the fair representation of people achieved by the original position’ while recognising that such a procedure requires a means of reconciling inconsistencies in individuals’ preferences and behaviours over time. Others, including Young (2000), have concurred, arguing that deliberative democracy should be founded on achieving just procedures, even at the expense of producing the most distributionally just outcomes.

What is clear is that procedural justice in deliberative valuation exercises requires a shift towards ideas of a knowledge polity in which narrow constructs of (economic) expertise can be broadened towards a new emphasis on addressing issues of public concern through a broad range of expertises – of which economics will be one (Massenberg, this issue, discusses a similar approach in relation to Buchanan’s Constitutional Economics). This reflects the emergence of a new epistemology of knowledge – and value - formation that moves beyond exchange to posit that knowledges – and values – are co-produced by social groups (Callon, 1999; Burgess, et al, 2000) – and that the procedural element of value formation is fundamental. This builds on Habermas’ (1983) communicative rationality and Callon and Rabeharisoa’s (2003) ‘research in the wild,’ in which individual participants begin collective decision-making with their own interests which, through deliberation with others, transcends these interests to adopt other regarding perspectives that reflect the common good. This is what Callon (1999) has termed a new 'technical democracy' in which the formation of composite knowledges and their associated normative values should emerge from dialogue in which all forms of expertise are recognised.

This approach to doing sustainability science has been used in England to address knowledge controversies associated with flooding, through the formation of ‘competency groups’ that have brought together a range of specialists and local people to take an holistic approach to water management and flood prevention (Whatmore, et al, 2008; Whatmore, 2009; Donaldson, et al, 2010). One of the key purposes of the groups is to develop new collective competences in handling what Whatmore (2009: p. 595) terms the ‘double uncertainty’ of flood-risk knowledge that has the capacity to redistribute expertise across the expert/lay divide. Deliberated shared social values lie at the core of these competencies. These values are both transcendental and contextual and, while they may have elements of aggregated individual utility, they go beyond this by making the dialogic element both instrumental – in identifying acceptable norms – and constitutive of group agreement – and the need for the outcomes to be acceptable to all (Hansjürgens, et al, 2017: p.14).

Developing a normative approach to value-formation thus involves articulating both the ontological position – the distributive rules by which value should be understood – and the epistemic position – that normative shared social values are formed through deliberative processes that can identify both transcendental and contextual values.

1. ***Decision-making is a constitutive process with instrumental outcomes***

Rather than the causal rationality of neoclassical economics, in which a specific process will elicit a specific answer, ecological rationality is based very much in the realms of social practice. Indeed, as Costanza, et al (2017: p.7) have observed, the apparently simple process of listing values, or ecosystem services, can make them sufficiently visible to be recognised in public policy. This gives such activities both constitutive and instrumental purposes such that both the process and the outcome are significant. This is similarly the case with deliberative approaches to value formation, which are concerned with pooling knowledges and broadening group understanding of complex problems through a constitutive decision-making process:

Because the process of deliberation requires citizens to go beyond private self-interest, it is … believed that the outcome will increase the social equity and political legitimacy of outcomes … In this manner, the process of discourse itself is taken to provide a *‘corrective function’* for situations where individual citizens alone possess incomplete information. Acting together, groups can piece together a more complete, and socially just, assessment of ecosystem goods and services. (Wilson and Howarth, 2002: p. 432)

For others, the corrective function lies in the co-production, or co-formation, of outcomes that are, at once, constitutive of those involved and also reflective of broader normative values related to everyone affected (Gilchrist, et al, 2015). As Hansjurgens, et al (2017) have argued, an outcome is in this sense normatively ‘right’ if it has come about through mutual understanding informed by interaction and dialogue. Whatmore’s (2009) work on knowledge controversies is a good example of the way in which a body of shared knowledge can be co-constructed through a deliberated group process. These approaches are also consistent with Habermas’ (1983) discourse ethics in which normative truths are developed, rather than arrived at, through communicative reasoning. This suggests that the formation of social values for sustainability rests more on procedural justice than it does on achieving specific distributional outcomes. This addresses Pelletier’s (2010) concern that we know little about how to operationalise outcome measures such as distributional justice, other than that they are founded on widely accepted ideas relating to freedom and equality, across time, for both humans and more-than-humans (see O’Connor and Kenter, this issue).

1. ***A new dialectical approach to political decision making is required to ensure that decisions remain reversible until they have been extensively deliberated***

All approaches to deliberative value formation are based, ultimately, on some form of group decision making process that, following Whatmore’s (2009) concept of the knowledge polity, is understood as inclusive and transparent. This means generating knowledges and values that reflect those involved and then deliberating broadly and extensively, with decisions only confirmed when there is clear evidence of consensus (Callon, 1999). For Dryzek and Pickering (2017: p.353), this involves developing a highly reflexive approach to decision-making in which institutions have the capacity to reconfigure themselves and the decisions that they make in direct response to self-reflection on their performance. There are countless examples of situations in which such an approach would have yielded more acceptable and convincing results without the need for reversing decisions that had seemingly been made. For example, Irvine, et al (2016) describe how the initial decisions made regarding the future of England’s public forest estate were subsequently found to be at odds with both public and expert opinions, and in need of substantial revision.

If decisions are only to be confirmed following deliberation, there needs to be a process whereby decision makers can understand when consensus – or synthesis - has been achieved. The Hegelian Dialectic is one such approach, in which a proposition, or thesis, is necessarily opposed by an equally plausible but contradictory proposition (the antithesis), out of which emerges a new proposition, known as the synthesis, which can similarly be tested until there is no further antithesis proposed. This implies a triadic approach to deliberation in which group members are taken through a structured process that allows them to reach a synthesis which can be acted upon with confidence because any opposition to it has been tested. This can be illustrated by reference to recent debates about human-induced global warming: climate scientists have put forward a thesis, consisting of evidence and arguments about the existence and potential threat of climate change. This has been countered by others who have different readings of the evidence and thus offer an antithesis. As debate has continued between these poles, a new consensus – or synthesis – begins to emerge in which at least some of the evidence becomes accepted as fact. Allowing a similar dialectic process to take place in the final, democratic, phase of deliberation means that participants are not rushed into adopting compromise positions, but instead can go through the triadic process – more than once if required – to reach conclusions that are genuinely consensual and which can be acted upon with some degree of certainty by decision makers.

1. ***That a ‘value bank’ is required, based on a new concept of Social Value Transfer (SVT)***

The cost of producing value estimates in cases where there is little or no market evidence can be substantial (Wilson and Hoehn, 2006). This has led to the development of techniques for using economic information derived for one situation to infer the economic value of the good or service in question in another location or at another time. This process, known generically as benefit transfer, is used either to estimate new value functions by modifying and applying the original economic data, or to derive new value estimates by recalibrating the value functions generated in the original valuation exercise (Wilson and Hoehn, 2006; Dryzek and Pickering, 2017). Benefit transfer has been used extensively with respect to environmental goods and services, usually by transferring ‘… original ecosystem service value estimates from an existing ‘study site’ or multiple study sites to an unstudied ‘policy site’ with similar characteristics that is being evaluated’ (Richardson, et al, 2015: p.52). It has been used extensively in global initiatives such as The Economics of Ecosystems and Biodiversity ([www.teebweb.org](http://www.teebweb.org)) and the The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services ([www.ipbes.net](http://www.ipbes.net)) (see Christie, et al, this issue). There are now databases of empirical studies on the economic value of environmental assets, including the Environmental Valuation Reference Inventory ([www.evri.ca](http://www.evri.ca)), which includes over 4,000 studies.

Notwithstanding the increasing ubiquity of benefit transfer, and the undoubted utility to policy makers of access to the EVRI database, Spash and Vatn (2006: p.379-380) have argued that such approaches – particularly those in which monetary values are transferred from one site to another – are often controversial because of limited environmental data, poorly conducted primary studies and a rudimentary approach to validating the comparability of the primary and policy sites. In addressing these issues, they argue that there are robust alternatives that include ‘ … attitude and norm measures, multi-criteria analysis and participatory deliberative institutions’ (Spash and Vatn, 2006: p. 379). These same approaches may well also be suitable for what we might term ‘social value transfer’ (SVT), in which shared social values that have been deliberated for a primary site or policy initiative can be transferred to an alternative site or policy scenario.

In common with conventional benefits transfer, the quality of SVT would depend on developing a strong functional understanding of how the deliberated values are formed and expressed and, thus, how applicable they are likely to be in an alternative situation. More fundamentally, it may well be that the normative assumptions and relative weight of different moral criteria for deliberative valuations will differ from study to study, rendering the results incomparable even if they are commensurable in the sense of all being in similar – usually monetary - units. Alternatively, it could be that some shared elements do transfer, such as broader transcendental values over a given – limited – period of time. This could mean that while it is not possible to undertake a full unit-based transfer from one site or policy to another, it could be possible to transfer a broad set of value indicators or parameters that can inform relatively limited deliberative processes applied to the new site or policy context. Rather than an EVRI-style database, this could lend itself more to a functional approach in which a deliberated ‘library’ of transcendental values can be used for a range of approached to forming contextual values, for example through forms of behavioural economics and deliberative monetary valuation (see Cory, 2006; Spash, 2007; Lo and Spash, 2013; Kenter, 2017).

**Conclusion: articulating the five principles for forming normative shared social values for sustainability**

In a recent review article, Costanza, et al (2017: p.7) observed that we really do not have a choice about whether or not to engage in the identification and application of social values for sustainability, because we are required to make decisions that ‘ … involve trade-offs between ranges of things that affect human wellbeing differently.’ The question, thus, is not whether we need to identify values, but rather, what kind of approach to valuation is most appropriate to determining and articulating social values. Much work has been done in this respect, in terms of new approaches to conceptualising ecosystem services (Acott, 2017; Lien, et al, 2018) and in terms of increasingly sophisticated approaches to deliberation (Spash, 2007; Raymond, et al, 2014; Kenter, Reed, et al, 2016; Kenter, 2017) and social learning (Reed, et al, 2010). Increasingly, valuation exercises are able to express shared values in ways that move well beyond conventional neoclassical economics and offer insights into how people hold and form transcendental and contextual values for sustainability (see Kenter, et al, 2011; Orchard-Webb, et al, 2016).

Yet, there remain gaps in our application of economic theory to social values for sustainability, particularly with respect to the normative aspects of economic analysis. These have previously been identified by Kenter, Bryce, et al (2016), who proposed a number of research questions about the extent to which deliberation can create new democratic spaces and foster better decision making with respect to sustainability. This is highly significant because while we have been ready to accept that sustainability is intrinsically normative (Schmieg, et al, 2018), we have been much less ready to ascribe a similar normative proposition to economics. Indeed, we have largely remained wedded to the conventional proposition that economic analysis is related to the maximisation of surplus (Schmidt, 2017), with ex-post interventions in markets to modify how this surplus is distributed. This has, inevitably, meant that many questions remain about how best to co-ordinate and develop work in the field of deliberative value formation, particularly around the ‘rules of the game’ (Kenter, Bryce, et al, 2016: p. 366) that are required concerning the processes of forming and expressing shared social values.

In addressing the need for a new set of rules, this paper has sought to return economics to its normative foundations, by arguing that surplus maximisation is but one of a number of normative purposes to which economic analysis can be applied. In particular, the paper has proposed five principles for forming and expressing social values. These are founded on a normative ontology in which the focus of value switches from the individual to social units such as communities and broader society, with an associated epistemology in which such shared social values are formed and articulated through dialectical deliberative social processes. This approach is thus founded on the principles that both procedural and distributive justice must be accounted for in the formation of shared social values for sustainability. The ontological position therefore reflects the harmonisation of normative sustainability goals with a procedural approach to economic theory that is founded on justice for both human and more-than-human entities. The emphasis of this new approach is thus on sustainability itself, with the economic purpose being to form and express social values in ways that articulate the choices that we – society - seek to make in determining how we allocate resources, before we undertake an allocation process. This reflects a new world of ‘post-normal’ science (De Marchi and Ravetz, 2001; Ainscough, et al, 2018) in which there are few certainties upon which to base complex political decisions.

What the five principles offer, therefore, is the foundation for creating a new set of normative valuation rules – and an associated value articulating institution - that are applicable to a range of policy decisions related to sustainability science. In recognising the need for an approach to procedural and distributive justice that is consistent with sustainability science, the principles seek to address the concern expressed by Kenter, et al (2016) that developments in the practice of deliberation have put more emphasis on technique than they have on the processes through which shared values are formed and expressed. The principles also recognise that each deliberative exercise is unique, because the co-constructed knowledges that are generated are necessarily unique to those involved. In theory this means forming and expressing shared social values for each circumstance in which a decision is required. Not only is this impractical, but there is little indication yet that it is entirely necessary. Just as approaches have been developed for ‘transferring’ the economic benefits from one cost-benefit study to another, so there may also be scope for establishing a new form of Social Value Transfer (SVT) which provides a mechanism whereby deliberated social values from one situation can be applied to other similar situations and contexts. While this could provide indications of social value in cases where the cost of forming a new set of values is greater than the likely benefit of doing so, questions must inevitably be raised about how far values formed and expressed in one setting can be transferred at all.

Work to date indicates that transcendental values are themselves relatively stable because they are very much part of people’s identity (Kenter, et al, 2015). However, as Kenter, Bryce, et al (2016) have argued, the extent to which specific transcendental values are activated tends to be dependent on the context and framing of the deliberation (for example, a flood event that brings out community spirit will probably activate different transcendental values to those that would articulated in a debate over windfarms). Following Kenter, Bryce, et al (2016), it may well be that we hold ‘proto-values’ that are partially formed prior to deliberation but which are then more or less fully formed by each specific context. More research is required to establish this, but if it is the case, the SVT approach could be developed by reference to the forming and expression of a broad range of individually-help proto-values.

In concluding, therefore, the five principles identified in this paper address an established research question by beginning to codify new rules of the game that are necessary in order for deliberative value formation to move centre stage, in terms of value estimation and sustainability science. The next step is to develop that can apply, test and revise the principles into a form that encourages a more standardised and replicable approach to forming and expressing shared social values for sustainability.

**References**

Acott, T. (2017) WetlandLIFE: Nested ecosystem services, wellbeing and valuing nature. Paper presented at the *Valuing Nature Annual Conference*, John McIntyre Centre, Edinburgh, 18-19 October 2017.

Aygeman, J. and Evans, B. (2004) ‘Just sustainability’: the emerging discourse of environmental justice in Britain? *The Geographical Journal* 170(2): 155-164.

Ainscough, J., Wilson, M., and Kenter, J.O. (2018) Ecosystem services as a post-normal field of science. *Ecosystem Services* 31: 93–101.

Anderson, M., Teisl, M., Noblet, C. and Klein, S. (2015) The incompatibility of benefit–cost analysis with sustainability science. *Sustainability Science* 10: 33-41.

Anderson, M., Teisl, M. and Noblet, C. (2016) Whose values count: is a theory of social choice for sustainability science possible? *Sustainability Science* 11: 373-383.

Barbopoulos, I. and Johansson, L-O. (2016) A multi-dimensional approach to consumer motivation: exploring economic, hedonic, and normative consumption goals. *Journal of Consumer Marketing* 33(1): 75-84.

Bateman, V. (2016) Classical Liberalism: The Foundation for a New Economics? *Critical Review* 28(3-4): 440-460.

Burgess, J., Clark, J. and Harrison, C.M. (2000) Knowledges in action: an actor network analysis of a wetland agri-environment scheme. *Ecological Economics* 35: 119-132.

Callon, M. (1999) The role of lay people in the production and dissemination of scientific knowledge. *Science, Technology and Society* 4(1): 81-94.

Callon, M. and Rabeharisoa, V. (2003) Research 'in the wild' and the shaping of new social identities. *Technology & Society*, (25), p.193-204.

Cory, G.A. (2006) A behavioral model of the dual motive approach to behavioral economics and social exchange. *The Journal of Socio-Economics* 35: 592-612.

Costanza, R., de Groot, R., Braat, L., Kubiszewski, I., Fioramonti, L., Sutton, P., Farber, S. and Grasso, M. (2017) Twenty years of ecosystem services: How far have we come and how far do we still need to go? *Ecosystem Services* 28: 1-16.

Costanza, R. and Folke, C. 1997, *Valuing ecosystem services with efficiency, fairness and sustainability as goals*, Island Press, Washington, DC.

De Marchi, B. and Ravetz, J.R. (2001) *Participatory approaches to environmental policy*. EVE policy Research Brief Series No. 10. Cambridge: Cambridge Research for the Environment.

Donaldson, A., Ward, N. and Bradley, S. (2010) Mess among disciplines: interdisciplinarity in environment research. *Environment & Planning A* 42: 1521-1536.

Dryzek, J.S. and Pickering, J. (2017) Deliberation as a catalyst for reflexive environmental governance. *Ecological Economics* 131: 353-360.

Eggleston, B. (2004) Procedural justice in Young’s inclusive deliberative democracy. *Journal of Social Philosophy* 35(4): 544-549.

Gilchrist, P., Holmes, C., Lee, A., Moore, N. and Ravenscroft, N. (2015) Co-designing nonhierarchical community arts research: the collaborative stories spiral. *Qualitative Research Journal* 15(4): 459-471.

[Habermas, J.](https://en.wikipedia.org/wiki/J%C3%BCrgen_Habermas) (1983) *Theory of communicative action, volume one: reason and the rationalization of society*. Translated by [McCarthy](https://en.wikipedia.org/wiki/Thomas_A._McCarthy), T.A. Boston, Mass.: Beacon Press.

Hansjürgens, B., Schröter-Schlaack, C., Berghöfer, A. and Lienhoop, N. (2017) Justifying social values of nature: economic reasoning beyond self-interested preferences. *Ecosystem Services* 23: 9-17.

Heindl, P. and Kanschik, P. (2016) Ecological sufficiency, individual liberties, and distributive justice: Implications for policy making. *Ecological Economics* 126: 42-50.

Irvine, K.A., O’Brien, L., Ravenscroft, N., Cooper, N., Everard, M., Fazey, I., Reed, M.S. and Kenter, J.O. (2016) Ecosystem services and the idea of shared values. *Ecosystem Services* 21: 184-193.

Jobstvogt, N., Hanley, N., Hynes, S., Kenter, J.O., Witte, U. (2014) Twenty thousand sterling under the sea: estimating the value of protecting deep-sea biodiversity. *Ecological Economics* 97:10-19.

Kenter, J.O. (2016) Editorial: shared, plural and cultural values. *Ecosystem Services* 21: 175-183.

Kenter, J.O. (2017) Deliberative monetary valuation. Ch. 34 in *Routledge handbook of ecological economics* (Ed. C. Spash). Abingdon, Oxon: Taylor & Francis Ltd.

Kenter, J.O., Hyde, T., Christie, M., Fazey, I. (2011) The importance of deliberation in valuing ecosystem services in developing countries—evidence from the Solomon Islands. *Global Environmental Change* 21: 505–521.

Kenter, J.O., Reed, M.S., Irvine, K.N., O'Brien, E., Brady, E., Bryce, R., Christie, M., Church, A., Cooper, N., Davies, A., Hockley, N., Fazey, I., Jobstvogt, N., Molloy, C., Orchard-Webb, J., Ravenscroft, N., Ryan, M., Watson, V. (2014) UK National Ecosystem Assessment Follow-on: Work Package Report 6: *Shared, Plural and Cultural Values of Ecosystems*. UNEP-WCMC, Cambridge.

Kenter, J.O., O'Brien, L., Hockley, N., Ravenscroft, N., Fazey, I., Irvine, K.N., Reed, M.S., Christie, M., Brady, E., Bryce, R., Church, A., Cooper, N., Davies, A., Evely, A., Everard, M., Fish, R., Fisher, J.A., Jobstvogt, N., Molloy, C., Orchard-Webb, J., Ranger, S., Ryan, M., Watson, V. and Williams, S. (2015) What are shared and social values of ecosystems? *Ecological Economics* 111: 86-99.

Kenter, J.O., Reed, M.S., Fazey, I. (2016). The Deliberative Value Formation Model. *Ecosystem Services* 21, 194–207.

Kenter, J.O., Bryce, R., Christie, M., Cooper, N., Hockley, N., Irvine, K.N., Fazey, I., O’Brien, L., Orchard-Webb, J., Ravenscroft, N., Raymond, C., Reed, M.S., Tett, P. and Watson, V. (2016) Shared values and deliberative valuation: future directions. *Ecosystem Services* 21: 358-371

Kolm, S-C. (2000) A historical introduction to normative economics. *Social Choice and Welfare* 17: 707-738.

Landsburg, S.E. (2007) The methodology of normative economics. *Journal of Public Economic Theory* 9(5): 757-769.

Lien, A.M., Schlager, E. and Lona, A. (2018) Using institutional grammar to improve understanding of the form and function of payment for ecosystem services programs. *Ecosystem Services* 31, Part A: 21-21.

Lo, A.Y. and Spash, C.L. (2013) Deliberative monetary valuation: in search of a democratic and value plural approach to environmental policy. *Journal of Economic Surveys* 27: 768-789.

McQuillin, B. and Sugden, R. (2012) Reconciling normative and behavioural economics: the problems to be solved. *Social Choice and Welfare* 38: 553–567.

Martin, A., McGuire, S. and Sullivan, S. (2013) Global environmental justice and biodiversity conservation. *The geographical Journal* 179(2): 122-131.

Miller, T.R., Wiek, A., Sarewitz, D., Robinson, J., Olsson, L., Kriebel, D., Loorbach, D. (2014) The future of sustainability science: a solutions-oriented research agenda. *Sustainability Science* 9: 239-246.

Mongin, P. (2006) A concept of progress for normative economics. *Economics and Philosophy* 22: 19-54.

O’Neill, J. and Spash, C. (2000) Conceptions of value in environmental decision-making. *Environmental Values* 9: 21-536.

Orchard-Webb, J., Kenter, J.O., Bryce, R., Church, A. (2016) Deliberative democratic monetary valuation to implement the ecosystem approach. *Ecosystem Services* 21: 308–318.

Pelletier, N. (2010) Environmental sustainability as the first principle of distributive justice: Towards an ecological communitarian normative foundation for ecological economics. *Ecological Economics* 69: 1887-1894.

Ranger, S., Kenter, J.O., Bryce, R., Cumming, G., Dapling, T., Lawes, E., Richardson, P. (2016) Forming shared values in conservation management: an interpretive-deliberative-democratic approach to including community voices. *Ecosystem Services* 21: 344-357.

Ravenscroft, N. (2010) The mythologies of environmental economics. *Journal of Policy Research in Tourism, Leisure and Events* 2(2): 129-143.

Rawls, J. (1971) *A theory of justice*. Harvard: Harvard University Press.

Raymond, C.M., Kenter, J.O., Plieninger, T., Turner, N.J. and Alexander, K.A. (2014) Comparing instrumental and deliberative paradigms underpinning the assessment of social values for cultural ecosystem services. *Ecological Economics* 107: 145-156.

Raymond, C. and Kenter, J. (2016) Transcendental values and the valuation and management of ecosystem services. *Ecosystem Services* 21, Part B: 241-257.

Reed, M. S., Evely, A.C., Cundill, G., Fazey, I., Glass, J., Laing, A., Newig, J., Parrish, B., Prell, C., Raymond, C. and Stringer, L.C. (2010) What is social learning? *Ecology and Society* 15(4): r1. [online] URL: http://www.ecologyandsociety.org/vol15/iss4/resp1/

Richardson, L., Loomis, J., Kroeger, T. and Casey, F. (2015) The role of benefit transfer in ecosystem service valuation. *Ecological Economics* 115: 51-58.

Sagoff, M. (1998) Aggregation and deliberation in valuing environmental public goods: A look beyond contingent pricing. *Ecological Economics* 24: 213-230.

Schlosberg, D. and Collins, L.B. (2014) From environmental to climate justice: climate change and the discourse of environmental justice. *WIRES: Climate Change* 5: 359-374.

Schmidt, S. (2017) A proposal for more sophisticated normative principles in introductory economics. *The Journal of Economic Education* 48(1): 3-14.

Schmieg, G., Meyer, E., Schrickel, I., Herberg, J., Caniglia, G., Vilsmaier, U., Laubichler, M., Horl, E. and Lang, D. (2018) Modeling normativity in sustainability: a comparison of the sustainable development goals, the Paris agreement, and the papal encyclical. *Sustainability Science* 13: 785-796.

Spash, C.L. (2007) Deliberative monetary valuation (DMV): issues in combining economic and political processes to value environmental change. *Ecological Economics* 63(4) 690–699.

Spash, C.L. and Vatn, A. (2006) Transferring environmental value estimates: issues and alternatives. *Ecological Economics* 60: 379-388.

Stapleton, L., Hanna, P., Ravenscroft, N. and Church, A. (2014) A flexible ecosystem services proto-typology based on public opinion. *Ecological Economics* 106 (2014) 83-90.

Strunz, S., Klauer, B., Ring, I. and Schiller, J. (2017) Between Scylla and Charybdis? On the place of economic methods in sustainability science. *Sustainability Science* 12: 421-432.

Warlenius, R., Pierce, G. and Ramasar, V. (2015) Reversing the arrow of arrears: The concept of ‘‘ecological debt’’ and its value for environmental justice. *Global Environmental Change* 30: 21-30.

Westberg, L. and Polk, M. (2016) The role of learning in transdisciplinary research: moving from a normative concept to an analytical tool through a practice-based approach. *Sustainability Science* 11: 385-397.

Whatmore, S.J. (2009) Mapping knowledge controversies: science, democracy and the redistribution of expertise. *Progress in Human Geography* 33(5): 587-598.

Whatmore, S., Landstrom, C. and Bradley, S. (2008) Democratising science. *Science and Public Affairs*, June 2008, p.17.

Wilson, M.A. and Howarth, R.B. (2002) Discourse-based valuation of ecosystem services: establishing fair outcomes through group deliberation. *Ecological Economics* 41: 431-443.

Wilson, M.A. and Hoehn, J.P. (2006) Valuing environmental goods and services using benefit transfer: The state-of-the art and science. *Ecological Economics* 60: 335-342.

Young, I.M. (2000) *Inclusion and Democracy.* Oxford: Oxford University Press.