

# Valuation Studies

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Editorial Note:

## Five years! Have we not had enough of valuation studies by now?

Liliana Doganova, Martin Giraudeau, Hans Kjellberg, Claes-Fredrik Helgesson, Francis Lee, Alexandre Mallard, Andrea Mennicken, Fabian Muniesa, Ebba Sjögren and Teun Zuiderent-Jerak

### A Time to Celebrate, to be Concerned, and to Have Hope

The disparate and heterogeneous body of work that falls under the rubric of “valuation studies” has really taken off in recent years. There are a number of exciting edited volumes and special issues that have been published in the past couple of years (e.g. Berthoin Antal et al. 2015; Cefai et al. 2015; Dussauge et al. 2015; Kornberger et al. 2015). This journal, recently just an idea, is now completing Volume 5 with its *tenth* issue. Sometimes we hear mumbled irritations about how valuation studies are about everything—and are actually everywhere. “Victory!” we could then answer in triumph, not without noticing how the valuation of valuation studies (and, indeed, of *Valuation Studies*) goes hand-in-hand with a sense of academic terrain, and the occupation thereof.

Celebrations might be in order. Yet, another route strikes us as more interesting and rewarding. We think that the recent advances in valuation studies requires a pause for reflection about what this movement actually entails. Such an exercise can be used to address

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several important questions: What has the study of valuation as a social practice become? Is it possible that the proliferation of studies using a “valuation studies approach” is not a sign of success, but a sign of a field becoming formulaic and repetitive instead of diverse and innovative?<sup>1</sup> As valuation studies has gained currency, has it lost some of its intellectual value? Should we fear devaluation of valuation as an analytic concept? What could we possibly hope for in the years to come and what are the stakes attached to the future of valuation studies?

### **A Largely Invisible Caveat on “Value”**

This journal, *Valuation Studies*, did not start with an explicit manifesto, a disciplinary doctrine or an intellectual precept. Rather, a set of suggestions—sometimes warnings—were communicated in early issues in multiple forms (e.g. Kjellberg and Mallard et al. 2013; Doganova et al. 2014; Mennicken and Sjögren 2015). One question concerned the extent to which valuation studies could (or actually should) differentiate itself from the classical thread of a sociology of values. Sociology altogether, considered in particular from the vantage point of the Weberian legacy, can be thought of as a sociology of values—i.e. a study of society understood in terms of heterogeneous groups of people attempting, beyond the sheer exercise of their instrumental rationality, to realize multiple, conflicting values (sometimes more, sometimes less successfully). Fine. But is then valuation studies just another sub-branch of sociology? A similar argument could be made with sociology’s twin (evil or virtuous), namely anthropology, a disciplinary field devoted to the study of value systems (again, broadly understood). Fine, too. But this is precisely why a nuance (or an attempt at a nuance) was introduced in this journal in multiple guises, here provided in another, more abrupt manner: let us drop *value*, please, and also *values*, please, please, and focus instead on *valuation*.

This message was certainly picked up by some, but not by many—judging by just a look at the way in which the subject matter has been approached in the very pages of *Valuation Studies* over the past few years. The purpose of moving from the study of values to the study of valuation was not to impose direction, but rather to feed new conversations and debates. Why valuation? Why a turn to value as operation, as practice, as act, as translation, as process, as movement, instead of something that something or someone just has? There are multiple reasons for this move. First, it’s interesting, in the sense that it requires us to challenge and move beyond pre-existing assumptions

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<sup>1</sup> This piece originated out of a sense of dismay among the members of the editorial board of *Valuation Studies* at the idea of valuation studies being referred to as an approach or a school.

about values as suggested by Davis in his classic article on the topic (Davis 1971).<sup>2</sup> Second, it brings further movement as researchers are forced to engage with and work out new positions. For contributors to a journal like *Science, Technology, and Human Values* for example, techno-science has always been the topic; human values often the resource. Valuation helps us problematize the very notion of values and their making. It is therefore slightly frustrating to note that in many of the instances in which a valuation studies approach is invoked, this move to valuation is often lost.

### **A Mild Disappointment with “Economy”**

Practices of valuation come in many kinds. That is why it is rewarding to examine and discuss them within a trans-disciplinary setting. Multiple attempts at sorting them out have produced many intriguing and stimulating scholarly articulations, sometimes in terms of spheres, sometimes in terms of logics, regimes, principles, or fields (you name it), sometimes just in terms of occurrences, events or happenings. Yet, this most welcome pluralism tends to decrease quite radically when it hits the hard, monolithic wall of “the market”, or “the economic”. Is this simply an empirical effect? Caused by the immobility of the economic touchstone? The dominant gauge? Or does it reflect a lack of mutability on behalf of otherwise quite varying viewpoints?

True, studies dealing with economic valuations abound that demonstrate, first, the variety of conflicting metrics that operate there; and second, the multiplicity of the moral and political orientations they serve or provoke. Research in the social studies of accounting and finance, for example, has provided convincing evidence of the sharp differences in criteria (certainly all economic and also moral in a particularly differentiated manner) which can be observed if one compares, say within the same investment bank, a financial analyst, a human resource manager, a compliance officer, a computer trading engineer and a lawyer (Beunza and Stark 2004; Lépinay 2011; Ortiz 2014; Godechot 2016). The same could be said of studies that examine the practices and justifications of different metrics in the (economic) appraisal of environmental impact (e.g. Fourcade 2011). Nonetheless, quite a large number of contributions which are intended to fall within the area of valuation studies seems to consider the economic as a univocal valuation principle that contrasts with everything else. Yet, in our view, one of the main purposes of valuation studies was exactly to query such concepts and compartmentalizations of the world (see also Kurunmäki, Mennicken and Miller 2016). Among other things, *Valuation Studies* was founded to explore new ways of questioning the

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<sup>2</sup> See Davis (1971: 327): “[...] the criterion by which an audience judges a particular proposition to be interesting is that it denies some aspect of their assumption-ground.”

very make-up of the economic in economic valuation, or as Hopwood (1992) would put it, to give insight into the “shifting sphere of the economic”. Perhaps the economic connotations of valuation are stickier than we had envisioned. We might also join Helmreich (2008) in asking how we could destabilize the economic or capital as “refusing to trust that exchange as such can permit the adequation of different values” (p. 475).

### **A Blatant Lack of “Lack”**

What is absent can be as telling as what is present. Yet, bringing absences into the discussion is not without its contradictions as, at the same time, it necessarily creates new absences (see e.g. Rappert 2014). That said, there are a number of empirical domains, conceptual approaches, and modes of writing that are blatantly lacking in the pages of this journal as well as in the broader field of which it wants to be part.

Contrasts can be useful here. Contemplate for instance the extent of the attention paid to matters pertaining to research and higher education as compared to other educational settings. Our conversations, in print as well as in small talk, do recurrently touch upon the plethora of valuation practices present in academia and higher education (e.g. Pontille and Torny 2014; Espeland and Sauder 2016; Helgesson 2016; Fochler and de Rijcke 2017). Compare this with the attention paid to valuation practices in education more broadly—from the grading of schoolchildren, the possible rating of schools by the Programme for International Student Assessment (PISA) run by the Organization for Economic Co-operation and Development (OECD). We are not arguing that research on the latter does not exist. What we *do* argue is that research about these matters is broadly absent in the scholarly conversations that take place under the rubric of valuation studies.

We could go on to list other empirical domains that are glaringly absent in our field. We will not. Our purpose in talking about absences is not to create lists of absences. Such exercises could easily instil a sense that greater completeness could be reached if only this, that, and the other domain were more clearly folded into our conversations—a version of the etcetera problem. The many absent domains, above exemplified by (primary and secondary) education, should in our view instead be used to pose pressing questions. First, how does this myopia of ours influence the scholarly endeavours that indeed are carried out under the rubric of valuation studies? For instance, and in relation to the point above, isn't it possible that our focus on specific issues and areas makes it harder for us to deconstruct the economic; and perhaps even the focus on deconstructing the economic only serves to reify it further as the coin of exchange of different species of value? What would it mean to study valuations without economies? Second, why

are studies of valuation practices in certain domains more easily and keenly brought into our conversations while studies of other domains remain largely elsewhere? Are some issues and domains less prone to the study of valuation practices, or are we less receptive to (and accepting of) certain forms of valuation? Would other empirical fields emerge if we would, for example, speak of qualification? Third, and following on from the two previous questions, is it that valuation studies actually have little to offer to those working on domains that are absent for us? And if so, what may be headings that are more generative for them?

Another form of absences concerns conceptual approaches. We have already noted the repeated use of the notion of the valuation studies approach. Asking authors to steer away from such singularization is arguably the most common feedback we include in editorial decision letters. The presence of the singular approach speaks of telling absences. The very notion of a singular approach does not sit comfortably with us precisely because it indicates a perceived homogeneity in how to conceptually approach the study of valuation as a social practice. It indicates the risk that the study of valuation becomes conflated with a particular approach. Yet, there are already several approaches and methodologies to the study of valuation practices and their consequences. Some examples are: the promising use of conversation analysis to examine situations of valuation (Hirschauer 2014; Wagner 2015); pragmatist approaches to valuation (Muniesa 2007, 2014; Berthoin Antal et al. 2015); or political economy studies of valuation (Lindo 2017). A partial remedy would then be to further celebrate and explore differences between these approaches. More pressing, we suspect, is the need to actively promote exploration of the possibilities offered by radically different approaches (e.g. Zuiderent-Jerak and van Egmond 2015). What would a close engagement with political theory look like? Ethics? Post-colonial studies? Feminist theories? Serious game theory? Speculative design?

Absences will always be in abundant supply. Let us just say that we would like what is absent in valuation studies to shift over time. Meanwhile, absences can be mobilized to study the performativity of the very notion of valuation.

### **A Trans-Disciplinary Challenge?**

Our reflections on the valuation studies moment and (hopefully movement) have made us ponder the signs that the field (i.e. we) is becoming formulaic with too little interest in engaging with certain empirical domains, new approaches, etc. Is valuation studies already, like so many dominant disciplines and schools of thought, experiencing the fate where exploitation is praised at the expense of

exploration? Another, more optimistic, way to frame matters is to appreciate that these are all challenges that come from growing and shifting multi- and trans-disciplinary conversations. In such a setting, there will always be immense struggles to juggle disparate audiences—audiences with different definitions of concepts, with interests in different empirical settings, with different sets of references and so on. An author, when publishing here, will reach a more diverse audience with different preconceptions of valuation studies than when s/he publishes in a more disciplinary focused journal. This can create telling mismatches of framing, setting and audience. This is the case for instance when (and this is not a joke) this journal receives proposals for special issues on valuation with no further specification: the proposed issue would certainly be a compelling special issue in many journals, but here special would be a misnomer, as every issue is about valuation. Likewise, the notion of a valuation studies approach might be meaningful in another journal, but on the pages of this journal it runs the danger of conflating several approaches to the study of valuation into one and to stifle discussions about conceptual differences.

We are, five years in, immersed in an interesting challenge. The field is blooming far beyond our expectations, but that makes it increasingly hard to resist professional narrowing and to stay relevant with respect to several audiences. The appeal of having a strong homogeneous identity in certain circumstances can be to the detriment of retaining the heterogeneity that is central to making the whole endeavour valuable. How can we maintain this heterogeneity within the journal? Our board includes members with affiliations to and training in a variety of disciplines—from sociology, to accounting, to anthropology, to history, to science and technology studies—and it remains very open to—and in fact extremely interested in—contributions from everyone in these disciplines, and others (e.g. literary studies). Papers and special issues proposing disciplinary approaches—including concepts, empirical settings, or methods—which are new to the journal and to us as individuals will always be given special attention. As long as the move to valuation doesn't get lost, we haven't had anywhere close to enough of this trans-disciplinary challenge!

### **Looking Ahead**

What could we possibly hope for in the years to come? Instead of ending in either self-criticism or celebration, we would like to share two of our hopes for the years to come. Let us end this with stressing a few things we hope for.

We have not had enough exploration of the possibilities and limitations of different approaches for examining and otherwise engaging with different valuation practices. We see room for more



experimentation as well as constructive debate about the merits of different modes of doing research. These experimentations include attempts at proposing new, specifically tailored, textual and visual formats for the exploration of valuation practices. The journal is keen on keeping an open mind regarding submission formats. The editors hope to receive pieces that take forms other than those of the standardized journal article, while remaining intellectually robust and stimulating.

Nor have we had enough of exploring the many facets of valuation practices. The unpacking of “valuation machinery” still by far dominates the field. We remain very keen to unpack such machinery in new terms or in new settings. We also hope to read more from our contributors about valuation beyond its machines, for instance, studies of the political effects of valuation.

All this entails working further on how we converse under the rubric of valuation studies, as well as bringing new scholars into these conversations. We need to continue working to stimulate meaningful conversations that are inspiring and important. No, we haven’t had enough of this!

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# The Value of a Valuation Perspective for Theorizing about Social Change and Climate Change: A Study on Carbon Pricing in China

Anita Engels and Chen Wang

## Abstract

This study combines three purposes: to advance a valuation perspective for theorizing about social change and climate change; to contribute to the general debate on pricing as the dominant policy to meet climate mitigation goals; to improve our understanding of potential decarbonization processes in China. We apply a valuation perspective to an in-depth case study of an emerging carbon market in Hubei Province in Central China. The study builds on original data collected during field trips to Hubei (2014, 2015) and additional documents covering recent developments in the Chinese carbon market. It shows how putting a price on carbon in China emerges as the outcome of a long-term cultural and institutional process in which China's high-carbon growth model is increasingly contested. We emphasize the work that was required before a carbon price could emerge as a market price, and focus on the uncertainty that needed to be overcome in the complex multi-level Chinese system. We suggest that China's introduction of low-carbon policies are a side effect of other political, economic and social pressures, and that it is largely facilitated because such policies are consistent with many other changes that are occurring simultaneously both in the Chinese context and globally.

Key words: climate change; social change; carbon pricing; China; decarbonization; valuation perspective

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## Introduction: What Is It Good for?

Analyzing carbon pricing in China from a valuation perspective is a highly elucidating endeavor for several reasons. First, it can help theorize about social change and climate change. It offers ways to overcome sociology's deeply rooted realist–constructivist split and suggests new ways to deal with theoretical challenges posed by anthropogenic climate change (Antonio and Clark 2015). This study recommends analyzing valuation processes to show how society assigns value to climate protection. We will demonstrate that and how valuation is a key process through which meaning—economic, political, environmental, scientific meaning—is assigned to climate change. In this process, CO<sub>2</sub> is created as an asset, material production is organized, and societal responses to climate change become possible and even likely. The valuation perspective shows the processes through which climate change becomes a consequential social and material reality. We thus use a case study to theorize<sup>1</sup> about how society changes *with* climate, in ways more complex than deterministic or linear assumptions about the impacts of climate change *on* society would suggest.

Second, such a study can contribute to the general discussion on the *role of pricing* as a means of producing desirable outcomes, particularly with respect to carbon pricing as a trigger for low-carbon development (Aldy and Stavins 2012). Carbon markets have proliferated worldwide in the past ten years (Stephan and Lane 2015). Many powerful players argue that carbon pricing, particularly through the creation of carbon markets, is the most promising way to curb global carbon emissions and, in the long run, to develop a low-carbon society. In particular, economic sociology and valuation studies can enable critical reflection on these assumptions because they guide researchers' attention toward the complex societal prerequisites for pricing carbon and the often unexpected (side) effects of such processes. China is also a critical test case as a state-led economy in which central planning still plays an important role; at first glance, therefore, pricing through carbon markets seems like a surprising policy option.

Third, the theoretical perspective suggested in this study is helpful in analyzing the *societal dynamics underlying* decarbonization processes in high-emission contexts. This sociological study allows us to explore the ways in which the world's largest emitter of CO<sub>2</sub>—China—is or is not moving toward low-carbon development (Tyfield and Urry 2009). This subject has extremely far-reaching implications for the likelihood of stabilizing greenhouse gas (GHG) concentrations at the level

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<sup>1</sup> By theorizing we mean the creative practice of observing, naming, conceptualizing, building analogies and typologies, and developing a tentative theory suggesting an explanation (Swedberg 2016).

requested by the UN Framework Convention on Climate Change and its current amendments (UNFCCC 1992; UNCoP21 2015).

The goal of this study is thus threefold: to advance the valuation perspective for theorizing about social change and climate change; to contribute to the general debate on pricing as the dominant policy to meet climate mitigation goals; and to improve our understanding of potential decarbonization processes in China, today's world's largest single emitter of GHG. We apply a theoretical framework to an in-depth case study of an emerging carbon market in Hubei Province, and we discuss the wider research implications of this case study.

### **Theorizing about Social Change and Climate Change from a Valuation Perspective**

Sociology and neighboring disciplines have developed a renewed interest in theorizing about the interconnections between human activities and the dynamics of the global climate system. This theorizing is motivated by the possibility that global climate change will have catastrophic impacts on vulnerable groups around the world and, in the long run, on the social fabric of life as we know it (Beck 2015; Dunlap and Brulle 2015). The most far-reaching assumptions about the interlocking of climate change and social change are found under the term "Anthropocene," which is meant to designate a new geological era in which the human species influences the vital dynamics of earth systems on a planetary scale (Hamilton et al. 2015). The French anthropologist and philosopher Bruno Latour has used the concept of the Anthropocene as a starting point for re-establishing political theory on new grounds (Gertenbach et al. 2016; Latour 2016). Others have suggested that the dominant interpretation of the Anthropocene needs to be challenged because it naturalizes nature and downplays social diversity (Lövbrand et al. 2015). The late sociologist Ulrich Beck suggested the concept of "metamorphosis" to describe the depth of the societal changes he observed and anticipated with regard to global ecological risks such as climate change (Beck 2015). He stated that such global risks violate fundamental values of human existence and that the recognition of these violations has caused an anthropological shock that enables wide-ranging social change. The changes that climate change would bring could be so deep that we must expect a metamorphosis: not just a change, but a change in the mechanisms of change. However, in his last book, Beck refrained from more concretely designating the forms of these changes or the directions they might take.

From a theoretical point of view, this approach remains unsatisfactory, particularly because the observation and anticipation of far-reaching deep changes is accompanied by the experience that many things simply stay the way they are. An agreement on global climate

targets obviously does not automatically lead to the implementation of these targets, and we are currently witnessing the persistence and inertia of societal structures, institutions and routines (Unruh 2000; Unruh and Carrillo-Hermosilla 2006; Bertram et al. 2015). The standard methods of economic production and consumption remain largely intact, and the rise of populist governments accompanies increasingly open denial of anthropogenic climate change among government officials and key administrations. Despite the fact that many new policy instruments have been implemented, many technological innovations have been introduced, and high levels of climate-friendly attitudes have developed, at least in some parts of society, the dominant growth model based on burning fossil fuels continues to create massive volumes of GHG emissions every year (UNEP 2016).

Climate change is a wicked social problem because there are no permanent fixes but rather continuous shifts and reframings (Grundmann 2016), and we only have very limited steering capacity over our complex, conflict-ridden globalized society (Urry 2003). So how can we account for the deep, ongoing changes that Beck referenced in his work while acknowledging that there is also immense structural inertia?

We think that approaching the problem of climate change from the theoretical perspective of valuation processes helps us understand and systematize this complex multi-level situation. The term “valuation perspective” is used here to delineate a body of work that addresses the overarching question of how the value of a thing is socially constituted. This theoretical perspective has a strong hold in economic sociology because it covers the basic question of how economic worth emerges in a world in which there is contingency in the value of products, considering that goods have no intrinsic value (Beckert and Aspers 2011). However, this question surpasses the economic sphere: valuation is performed in almost every sphere of social life (Helgesson and Muniesa 2013). Therefore, valuation is considered the basis for creating, maintaining, rearranging and changing social order (Lamont 2012; Stark 2011). A valuation perspective thus offers a way to analyze how the social world is constructed, why it develops in a particular way, and what its consequences are (Fourcade 2011).

We are currently witnessing a fundamental re-evaluation of the relationship between human beings and the earth’s atmosphere. Whereas the atmosphere used to be a free-of-charge dump for human exhausts, it is increasingly acknowledged that it also functions as a priceless protective layer that maintains the earth’s radiative budget within the range in which human life can flourish. This transformation of the atmosphere is an ongoing process that is multilevel and nonlinear. Although this transformation involves cultural change in the sense of new meanings and worldviews, it is also intimately linked to



the re-evaluation of “hard” economic aspects such as investments, costs and profits. Anthropogenic climate change is increasingly recognized as a risk factor that is caused by core economic activities and therefore requires the gradual buildup of a carbon-constrained business future. These processes of recognition involve extensive sense-making in complex multilevel societal settings (Weingart et al. 2000; Bäckstrand and Lövbrand 2006). One of the central questions in this assessment is how the social construction of climate change becomes a consequential social and material reality (MacKenzie 2009; Bansal and Knox-Hayes 2013). In the following paragraphs, we will show how we expect a valuation perspective to offer much-needed contributions to theorizing social change within the scenario of anthropogenic climate change. Even though the publications summarized here under the term “valuation perspective” do not necessarily form a single coherent body of literature, we believe that four aspects of the literature in this area describe these authors’ common insights. We take them as helpful starting points for shedding more light on the metamorphoses that Ulrich Beck anticipated in the context of anthropogenic climate change. These four aspects are as follows: valuation involves long-term cultural and institutional processes; these processes are typically prone to conflict and contestation; a basic problem that must be overcome in valuation processes is fundamental uncertainty; and valuation does not occur automatically but is the outcome of work.

### **Valuation is a long-term cultural and institutional process**

How do we come to assign values to things, persons, events, experiences and many other societal categories? From the valuation perspective applied here, no one would expect that an answer to this question could be found by referring only to individual preference formation. Several authors have shown that valuation involves cultural and institutional processes that often unfold over many decades. In her seminal work on the changing sentimental and economic value of children in the United States, Viviana Zelizer has shown that a multilayered process occurred in which the meaning of having children was redefined and re-categorized with respect to labor relations and family life. In this process, children were culturally transformed from an object of utility to an object of sentiment (Zelizer 1985). In the context of our own study, the valuation of the earth’s protective atmospheric layer is of central importance. Marion Fourcade analyzed how over a period of more than three decades, people in both the U.S. and France attempted to establish procedures through which the value of nature could be monetarized to create a calculative basis for compensation for oil-spill damages (Fourcade 2011). She has demonstrated convincingly how cultural redefinitions of society’s relationship to nature, scientific conceptions and institutional changes,

especially in the field of law, were combined to generate very specific solutions related to monetary compensation in the two countries. If we apply a valuation perspective to the earth's climate system, we must also consider the long-term, multilayered cultural and institutional process through which the international community came to acknowledge that a stable climate has high value for human society and should therefore be protected. From this perspective, we refer the changing cultural understandings of humankind's position in the universe to several interrelated aspects. Inter alia, photographic representations of the earth in space had deep cultural effects (Poole 2008); decades of negotiations led to the United Nations Framework Convention on Climate Change (UNFCCC) and subsequent agreements (Aykut et al. 2017); a broad spectrum of social movements built up around issues of climate change and development (McAdam 2017); and a plethora of policy instruments to mitigate climate change was developed at all imaginable levels of government and governance (Bäckstrand and Lövbrand 2015). In particular, we must consider the changing role that China has played in this long-term negotiation process. Over the years, China transformed from a low-income developing country that rejected any responsibility for climate change to a country that formally recognizes its responsibility as the world's largest single emitter of CO<sub>2</sub> to curb its carbon emissions in the mid-term future to contribute to the 2°C limitation goal that was adopted by the international community in the 2015 Paris Agreement. This long-term process will serve as the background narrative of our case study, and we will pose the question of how China came to adopt this proactive mitigation position during a process that also occurred over several decades.

### **Valuation processes are prone to conflict and contestation**

Many authors have emphasized that there is never a single principle of valuation or a single social order that defines a single concept of worth (Lamont 2012), but instead that multiple "orders of worth" can usually be found (Boltanski and Thévenot 2006). These orders are often incommensurate, and they can be effective as competing principles even within a single organization (Stark 2009). Others have emphasized that these competing orders must be negotiated locally (Knoll 2013; Engels and Knoll 2014). Typical conflicts emerge in the process of assigning monetary values to hitherto non-monetarized spheres of society (Fourcade 2011; Lamont 2012). In the valuation process associated with climate change and climate mitigation policies, we have witnessed conflict and contestation of many core concepts that define both the problem and appropriate solutions. From the beginning, the basic idea of the climate system as a priceless but threatened entity has been contested by climate change denialists, and it is still contested in some communities (Dunlap 2013). Attempts to

develop a monetary estimation of the potential costs of climate change have been accompanied by protests over the suggestion that industrialized and non-industrialized lives should be assigned different monetary values (CIESIN 1995). The most pertinent conflicts have unfolded over the question of who should be responsible for paying for climate-related damage and bearing the cost of decarbonizing the economy. Several dimensions have served as lines of conflict (Hulme 2009), including North versus South, mitigation versus adaptation priorities, market-based policies versus other types of policies, and climate mitigation versus more pressing development goals. In the context of our own study, we are particularly interested in conflicts over the effectiveness and fairness of various carbon pricing mechanisms. In the past, numerous institutions have stated that transformation to a low-carbon society requires putting a price on carbon and mobilizing the financing of emission reductions. These institutions include governments, supranational entities, banks and other economic actors, and even environmental NGOs (non-governmental organizations) (e.g., World Bank<sup>2</sup> and the Carbon Pricing Leadership Coalition<sup>3</sup>) (EDF and IETA 2016; Lehmann 2015). This proposal is based on the assumption that although technological solutions to enable the transformation to a low-carbon development mode either are available or can soon be made available (Patt 2015), a financing problem impedes the implementation of these solutions (Aglietta et al. 2015). However, these market solutions have been heavily criticized, and they harbor the potential either to create perverse incentives or to bring about substantial negative side effects (MacKenzie 2009; Bansal and Knox-Hayes 2013; Ehrenstein and Muniesa 2013). Therefore, we will examine conflicts over alternative options for the valuation of climate change, CO<sub>2</sub>, and a decarbonized future in our Chinese case study.

### **Valuation processes need to find solutions to fundamental uncertainties**

The problem of fundamental uncertainty is key not only to our understanding of decision making in economic and non-economic situations but also to our understanding of valuation processes. There is neither an intrinsic value of objects nor a fixed societal order of preferences to which valuation can refer (Aspers and Beckert 2011). This notion relates to many aspects of the process. One example of uncertainty in valuation processes for market goods arises out of the fact that the quality of many objects cannot be known directly and is revealed only during their use. Alternatively, quality can be signaled by

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<sup>2</sup> <http://www.worldbank.org/en/programs/pricing-carbon>, accessed 10 October, 2016.

<sup>3</sup> <http://www.carbonpricingleadership.org/>, accessed 10 October, 2016.

the type of user—e.g., the good is also a status symbol. A plethora of mechanisms is typically created to provide potential buyers with indicators of a product's quality (Beckert and Musselin 2013). The problem, however, also refers more generally to the fundamental uncertainty of the future (Dequech 2003). People are creative, they do unexpected things, and for these and many other reasons the world can change dramatically within a short period of time, as can the basis for evaluating the worth of things. Therefore, one problem that must be solved in relation to valuation processes is the unstable expectations of the future that guide practices in the present, e.g., investment decisions. Various techniques involving prospection, visions and scenarios are used to overcome this problem (Andersson 2012; van Lente 2012; Tavory and Eliasoph 2013; Beckert 2016). These imagined futures are also contested, and there is an interesting process related to how such futures are coordinated between various actors, particularly in complex multilevel societal arrangements (Beckert 2016). The process is especially pertinent in the field of climate change (Hall 2016) and for translating the goal of decarbonization into investment opportunities (Ehrenstein and Muniesa 2013). We will apply this perspective to the complex multilevel situation in which carbon markets are created in China. Moreover, we will focus on how common visions of the future are created to stabilize future expectations, thus making carbon pricing possible.

### **Valuation is work**

Valuation is not simply a readily available outcome; it requires extensive work (Vatin 2013; Helgesson and Muniesa 2014). In exploring the application of specific market or valuation devices (Callon et al. 2007; Kornberger et al. 2015), this is emphasized to an even greater extent. In the case of climate change, most obviously, the scientific work of thousands of researchers was necessary to establish that anthropogenic climate change poses a risk to societal well-being. In addition, when we look more closely at how value is assigned to specific “solutions,” we see the work that is required. Because we are particularly interested in market solutions, we apply this valuation-as-work perspective to the process of “putting a price on carbon.” The formulation evokes an image of someone attaching a price tag to a material object. In one sense, this image conveys an appropriate message because “putting” implies that pricing is “done” instead of miraculously emerging from a market. In other respects, however, the image of placing a price tag on an object is grossly misleading because it obscures the complex processes through which “carbon” is created as a tradable object that first must “be” before a price can be attached to it. Furthermore, the use of this image obscures the tremendous amount of work entailed in creating a market in the sense of developing an infrastructure (legal, technical, political, etc.) that allows

units of “carbon” to be traded between “market participants” (Levin and Espeland 2002). With respect to pricing, this is an important shift in perspective. The standard economic representation depicts pricing as the most efficient and cost-saving mechanism that can be used to achieve a certain outcome. By applying a valuation perspective to the process of pricing, the analysis highlights the major investment needed to make all of this possible (Levin and Espeland 2002; Callon et al. 2007; Beckert 2011). Once this is made clear, it is possible to compare it with the investments needed for alternative forms of valuation. This is of particular importance if we want to engage in a critical debate about different pathways to decarbonization. A valuation perspective will help us make these complex processes visible and in particular, to visualize the creation of a carbon market from scratch in China’s centralized, state-led economic system. We will show how the actual pricing in such a market only becomes possible after many other types of work have been performed.

We will use these four insights into valuation processes to theorize about the relation of social change and climate change in China through the lens of a case study on carbon pricing in Hubei Province.

### **Conceptual Thoughts, Methodology and Data: Conducting Research on Carbon Pricing in China**

Chinese society, with its specific political economy, differs in many respects from other regions of the world. We aim to identify the features of the Chinese system and the concrete processes that we must examine to open the black box of carbon pricing in the Chinese context. The topic is of central importance to global carbon-mitigation efforts. Because Chinese carbon emissions represent a very large portion of global carbon emissions, the price of carbon in China might become influential as a global reference price (Wang 2013). A great deal of theorizing about economic dynamics in China is taking place in relation to an emerging capitalist system, and we will briefly discuss the implications of this debate for our analysis and how we can apply valuation studies in this context.

Scholars around the world are fascinated by how within only a few decades, China’s agrarian-based, communist-planned economy, which is controlled by the Communist Party, has been transformed into a “thriving market-oriented economy” (Walder 2014: 40), even though the long-term sustainability of its economic growth model has recently been called into question (Naughton 2014; Schnabl 2017). Beginning with the economic reform processes that occurred under Deng Xiaoping, the Communist Party implemented an export-oriented growth model and achieved two-digit growth rates throughout the late 1990s and mid-2000s (Naughton 2014). Although the Chinese government officially depicts the Chinese economic system as a

socialist market economy in which central planning remains an important aspect of domestic development, many authors have discussed whether and to what extent China has already become a capitalist economy and what markets mean in its political economy (Fligstein and Zhang 2011; Meyer 2011; McNally 2013; ten Brink 2013). In coming to grips with this question, most authors have highlighted the continued role of the state and identified various concepts of capitalism, including coordinated capitalism (Fligstein and Zhang 2011), centrally managed capitalism (Lin 2011), state-permeated capitalism (ten Brink 2013) and state capitalism (McNally 2013). Others have analyzed the introduction of a capitalist-type accounting system in China (Chiapello and Ding 2005). More skeptical authors have argued that the Chinese system lacks the essential ingredients of capitalism given that state investments (“institutionalized GDP growth”) still dominate entrepreneurial dynamics (Meyer 2011). However, others strongly dispute the idea that any coherent model fits the Chinese economy as a whole and propose the concept of internally variegated capitalism with strong regional heterogeneity (Mulvad 2015; Zhang and Peck 2016). Our aim, which is to analyze valuation processes by examining the pricing of carbon through carbon markets, does not require a conceptual decision about whether or not to categorize the Chinese system as a capitalist economy. However, two features that have been emphasized in the conceptual debates about China’s political economy are important in the context of our study.

First, the state remains the backbone of China’s economic dynamics and plays a strong enabling role. This refers both to the state’s share of overall investments and to the guiding role of the Communist Party in establishing the institutional frameworks for market mechanisms. Given that they are promoted in the Chinese system, markets are often scientifically planned under the guidance of strong state institutions such as the National Development and Reform Commission (NDRC). The state thus remains a strong coordinating actor with heavy intervention, ownership and control in many areas (Fligstein and Zhang 2011; ten Brink 2013). Walder et al. plausibly argued that the continued strength of the Communist Party and the state’s control over property rights have helped smooth the transition to a more market-like political economy and have been instrumental in preventing an economic recession (Walder et al. 2015). Consequently, economic reform and the introduction of market mechanisms occur in an incremental and selective manner (Overholt 2011), especially in our field of study. Most energy providers and heavy industries are still state-owned entities (SOEs). Even in listed firms, the state or a state-owned holding company is often a majority shareholder (Feinerman 2007; Ataçay 2016). Because the price of energy is subject to regulation, one cannot speak of strong market systems in a liberal

sense on either the production side or the consumption side of the energy system.

Second, even though the Chinese system remains authoritarian, there is room for policy experimentation, especially at the city and provincial levels (Raynard et al. 2013; Yi and Liu 2015; Young et al. 2015). This refers not only to how economic activities are organized into special economic zones but also to experimentation with various environmental policies such as the introduction of eco-cities or low-carbon cities (Khanna et al. 2014). This approach has been analyzed as an adaptive mode of governing in a complex multilevel system (Heilmann and Perry 2011; Noesselt 2014). Thus, this process takes the form of systematic interregional or interprovincial competition for support and attention from the central government (Xie 2016), whereas the outcome is “experimental heterogeneity” (Zhang and Peck 2016: 65).

We will see how this mechanism of policy experimentation through competition at the provincial level also plays out in the construction of carbon markets and the pricing of carbon. Beginning in 2013, the introduction of emission trading pilot schemes was allowed in seven cities and provinces: Beijing, Chongqing, Guangdong, Hubei, Shanghai, Shenzhen, and Tianjin. In our case study of Hubei Province, we will see how competition requires the provincial government to create a position for itself and how the creation of this position allows its pilot emissions trading system (ETS) to be acknowledged as a more successful experiment than other pilot systems.

This is an original research study of an ongoing process in a country in which in-depth studies in a number of societal and economic fields are known to be difficult to approach (Roy et al. 2001; Heimer and Thøgersen 2006). Other authors have discussed in detail the difficulties of field access (Lee and Zhang 2013), contextual and conceptual problems (Child and Marinova 2014; Rugman et al. 2016), and numerous questions regarding the reliability and quality of the available data.<sup>4</sup> We are aware of these pitfalls and have attempted to avoid them or, if they are unavoidable, to minimize their effects. Our own analysis is based on collaborative work on Chinese ETS; this work was conducted over a period of more than two years and includes 29 interviews conducted from 2014 to 2016 during field trips that lasted several weeks (see Appendix) and more than 50 documents in both English and Chinese from various actors who have been involved in or have commented on the emerging carbon markets in China and the wider field of energy policy. Typically, we either were not permitted to record the interviews or did not ask to record them to

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<sup>4</sup> See, for example, “Strong China property data masks big problem: unsold homes” by [Xiaoyi Shao](#) and [Clare Jim](#), BEIJING/HONG KONG. <http://reut.rs/1SYjb9r>, accessed 10 October, 2016.

avoid overcautious response behavior. Instead, we always attempted to conduct the interviews using teams of two or three people and to take extensive written notes throughout the interview. After each completed interview, the team met to compose a written document. Most interviews were conducted orally and in person; in a few cases, however, interviewees were re-contacted via email with follow-up questions. The documents in our database contain policy statements, market analyses, and several related types of reports. We combined our own data with an extensive literature review of recent social and policy changes in China. Our analysis was checked and tested in intensive debates between the research teams from Hamburg University and Wuhan University. A deeper understanding of the field was also gained during a three-month internship completed by the second author at a third-party verification organization, during which she visited different companies to verify China's reported CO<sub>2</sub> emissions data. Acknowledging that the acquisition of more extensive data would provide an even more reliable basis for our analysis, we remain convinced that our methodological approach ensured the generation of valuable and plausible answers to our research questions.

In the next section we will apply a Valuation Perspective to Carbon Pricing in Hubei Province. We start with considering the long-term process in which the growing international criticism of China's role as the world's largest emitter of CO<sub>2</sub> coalesced with domestic re-evaluations of the dominant economic growth model. This provides a background narrative for the second part of this work, in which we will present our main results showing how Hubei Province attempted to achieve carbon pricing through the creation of ETS. We will focus our analysis on the problem of uncertainty in this complex multilevel process and the enormous work that went into this pricing process.

### **Questioning the High-Carbon Growth Model as Part of the Long-Term and Conflictual Process of Redefining the Value of the Climate System**

At least at the rhetorical level, China is undergoing a remarkable shift toward a new low-carbon growth model and a commitment to reduce its carbon emissions in absolute terms by 2030 (Li and Wang 2012). Economic growth in China was accompanied by a massive growth in CO<sub>2</sub> emissions that has transformed China into the world's largest emitter. However, China, along with other developing countries, shielded itself for many years against any binding reduction targets by invoking the historical responsibility that developed countries accumulated during their industrialization phases (Christoff 2010). UN negotiations were heavily influenced by a North-South framing, leading to agreements that provided financial support mechanisms for developing countries to at least experiment with low-carbon



development on a voluntary project-based level. The most important financial support mechanism, the Clean Development Mechanism (CDM), was founded upon a market-based concept, and China became the largest CDM recipient (Wang 2010). However, positioning itself as a developing country became increasingly more difficult with time: in approximately 2007, China became the world's largest single emitter.<sup>5</sup> Increasingly, China changed its negotiation position from that of a defensive developing country to that of a proactive global player. On the one hand, there was a great deal of pressure on China as it became obvious in all future scenarios that without substantial CO<sub>2</sub> reductions in this country, all attempts to achieve a global reduction sufficient to prevent dangerous levels of climate change would be in vain (Zeng et al. 2008). On the other hand, the perceived stalemate in the negotiations that occurred around 2009 (Aykut and Dahan 2015) also provided an opportunity to adopt a position that would grant China much more positive recognition as an emerging power. The Chinese government seized that opportunity to engage in a number of bilateral declarations with the US that expert commentators have called "game changers" for the negotiations (Adler 2014; Sinclair 2014). China surprised the negotiation community by placing a cap on absolute targets in its Intendent Nationally Determined Contributions (INDC) that were submitted in preparation for the Conference of the Parties (CoP) 21 in Paris in 2015. After Donald Trump was elected U.S. President, this move was even reinforced, as the U.S. is increasingly leaving a void in global leadership on climate protection that China is hastening to fill (Biesecker and Watt 2017; Zhao 2017). China also became involved in a World Bank initiative that supports the creation of carbon markets, and it received both initial funding and technical support from that initiative. The context of international climate negotiations thus provided both an opportunity and a pro-market framing of policy options.

Notwithstanding, we think that domestic factors lend even more plausibility to the question of why China has become a more active global player in climate negotiations. These factors have no direct connection to climate change; instead, they result from growing domestic pressure related to environmental, health, energy security and economic issues. In the past, the Chinese public has been exposed to a large number of severe health risks stemming from industrial accidents and environmental pollution (Young et al. 2015). In particular, problems with local air quality have become aggravated in the vast urban areas of East and Central China. Local air pollution is largely attributed to the operation of a large number of coal-fired power

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<sup>5</sup> <http://data.worldbank.org/indicator/EN.ATM.CO2E.PC>, accessed 7 November, 2016. <http://www.climateactiontracker.org/countries/china.html>, accessed 7 November, 2016.

plants with low efficiency standards (IETA 2013) and to the transportation sector, with its ever-growing number of automobiles that consume gasoline. The public has become more outspoken on these issues. To an extent, members of the Chinese elite are leaving the country because of China's accumulating environmental and health problems, and thousands of active NGOs are addressing environmental matters in China (Nederveen Pieterse 2015). Unlimited pollution is seen as a direct threat to social peace and has seriously challenged the legitimacy of the ruling Chinese Communist Party (Li-Wen 2010). State agencies are continuously monitoring industrial processes for acute symptoms of environmental crises (Young et al. 2015). There is also growing opposition to the construction of a large number of new coal-fired power plants (Leung et al. 2014: 91). In addition, government actions have been motivated by energy security concerns. China's demand for oil cannot be met domestically, and the country's dependence on imported oil has become a major concern of the government (Leung et al. 2014). Therefore, China is experiencing domestic pressure to improve air quality and reduce energy security risks. The central government has reacted to these pressures by developing policies aimed at improving energy efficiency, conserving energy, investing in clean coal technology and replacing fossil fuels with renewable energy and nuclear energy (IETA 2013; Mathews and Tan 2014; interview NDRC 17 October, 2016). Health, environmental and energy security issues can all be viewed as side effects of the economic growth model. However, this growth model has also recently come under scrutiny for directly economic reasons as both external commentators and analysts of the highest political ranks in China have begun to question the country's economic sustainability in light of its overinvestment and financial fragility (Naughton 2014). Pressures unrelated to climate change are thus driving environmental and energy policies in a direction that also generates benefits in terms of either improved carbon intensity or reduced carbon dioxide emissions. The current growth model is being critically re-evaluated for numerous reasons, and an alternative growth model that also emphasizes strengthening the financial sector might be attractive to Chinese leaders (Kuhn 2016). Accordingly, the shift toward renewable energy and improved energy efficiency could also be part of China's global climate mitigation strategy, because it is completely consistent with (at least some) domestic priorities, although not primarily driven by concerns about climate change.

In facilitating this shift, the Chinese government uses a broad mix of policies and instruments (for an overview, see Sternfeld 2017). This mix ranges from the actual closing and even demolishing of heavily polluting factories to providing financial incentives and public funding for energy efficiency and energy conservation programs, accompanied by strong support for the rapid development of renewable energy

sources. Additionally, numerous market-style policies have been developed since the early 2000s. Furthermore, experts anticipate that a carbon tax may also be proposed in the next few years (Neslen 2017). Therefore, as part of a wide variety of policies, market-style instruments have long been present (Shin 2013; Engels et al. 2015). Making use of market-style policies in the fields of environment and energy is thus at least not at odds with the overall reform process or the broader institutional framework. Introducing ETS along with various non-market policy approaches and allowing various provinces to experiment in a competitive setting is indicative of the typical approach of adaptive governance that we mentioned in the Section Conceptual Thoughts, Methodology and Data. From the valuation perspective, we gain a non-instrumental understanding of carbon pricing: the links between the priceless worth of the climate system and the monetary value of (avoided) carbon emissions is far from straightforward; pricing and market instruments are not simply a solution to the climate problem but are connected by multiple links to all kinds of other societal problems. Through this contested process in a multilevel setting, the market form is now available as a means of dealing with carbon emissions; however, it is not obvious which form of control will emerge from China's carbon pricing activities and carbon markets.

### **How is Carbon Pricing Achieved in the Hubei ETS Pilot?**

“Putting a price on carbon is considered a crucial step for China's endeavor to harness market forces to reduce its energy consumption and carbon emissions and genuinely transform into a low-carbon economy” (Zhang 2015a: S5). This claim is often repeated and has been adopted by many proponents of a carbon market (Lo and Yu 2015). How, though, is a price actually put on carbon? More precisely, which problems need to be solved (Fourcade 2011) and what work is required (Levin and Espeland 2002) before a monetary value can be assigned to an allowance for 1 metric ton of CO<sub>2</sub> emissions? What is required for this assigned monetary value to emerge as a market price? In the Chinese context, as discussed in the preceding section, obtaining answers to these questions involves an enormous multilevel coordination task, reflecting fundamental uncertainties for all involved actors in a fluid economic and political environment (Beckert 2016). One fundamental uncertainty concerns future economic development itself and how the reform process will frame the future space for economic action in China (Naughton 2014). Especially in the context of emission targets, questions emerge regarding how economic growth can be reconciled with low-carbon strategies and how the Chinese government can strike a balance between these potentially conflicting

goals in practice (Liu et al. 2013). Another major source of uncertainty for the seven ETS pilots stems from the complex relationship between the central government and the provincial governments, where competition among pilot schemes is encouraged. The outcome of this competition has been the development of an enormous variety of designs in the early phase (Yotzo and Löschel 2014) and the provision of incentives to deliver the best-functioning ETS pilot that will serve as a model for the nationwide scheme, thus preventing the need for substantial rearrangements at the provincial level following the introduction of the national ETS.<sup>6</sup> Nevertheless, uncertainties abound not only for those who create the ETS and choose its design features but also for those who are actors *in* the future ETS, i.e., companies whose participation in the ETS is defined as mandatory and other future market participants such as (financial) service providers and investors. Finally, one major source of uncertainty that might be even more pertinent in China than in countries with a current ETS relates to a basic data problem and the credibility of the reported emission data. Knowledge of the volumes and origins of CO<sub>2</sub> emissions is essential to constructing an effective ETS and monitoring emission outcomes; however, it has been reported that the CO<sub>2</sub> data in China are chronically flawed (Guan et al. 2012; Wang 2013; Korsbakken et al. 2016).

To overcome this multilayered set of fundamental uncertainties, it is extremely important to build and stabilize expectations. We will now look in more detail at how imagined futures (Beckert 2016) were coordinated at various levels in the valuation process and how the valuation process involved conflicting conceptions of long-term economic development.

### **“Ecological civilization” and the “low-carbon economy” as reference points for central planning**

Central planning still occupies a pivotal place in China’s economy. In particular, China’s five-year plan (5YP) is the most important instrument for setting priorities and providing an orientation to and guidelines for economic development. Within this plan at the level of general priority setting, various concepts are introduced to define the models of growth and development that China should strive to create. The importance of concepts such as a “harmonious society” and the “Chinese dream” lies not in any direct programming of decision challenges. Most importantly these concepts are empty signifiers that serve to ensure the pragmatic resilience of the Chinese one-party system (Noesselt 2015). Together with the concept of a “low-carbon economy,” the concept of “ecological civilization” was introduced by the 17th Party Congress in 2007. The latter concept is used to

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<sup>6</sup> Interview economist, Wuhan University, 24 September, 2015.

harmonize ecological and economic goals and thus serves at the ideational level as a visible indicator of China's shift to a more sustainable growth model. Chinese commentators relate ecological civilization closely to a new "green growth" or low-carbon development model (Zhang et al. 2011; Wang et al. 2013). At a more concrete level, the 5YP also sets specific targets for production and investment in renewable energy, energy efficiency, carbon efficiency and even carbon reductions for each province (Engels et al. 2015). Moreover, the twelfth 5YP (2011–2015) includes the task of introducing a pilot carbon ETS, and the thirteenth 5YP (2016–2020) includes the introduction of a national ETS. Carbon reduction goals and reliance on the ETS as a way to achieve them have thus been firmly established in the central planning process. We suggest interpreting the effect of these concepts in the planning process as top-down attempts to provide a general future orientation. In terms of valuation processes, the 5YP is important in creating a vision of an alternative low-carbon growth model for China insofar as it provides a broader temporal landscape (Tavory and Eliasoph 2013). The concept of "ecological civilization" recognizes the need to balance two conflicting orders of worth: economic growth versus environmental integrity and the country's beauty.

### **Creation of a carbon market vision for Hubei Province**

When the seven pilot schemes were chosen, most observers expected two or three of them to become the most influential, perhaps with Beijing as the capital, Shanghai as the most vibrant economic zone, and Shenzhen as the first special economic zone. Hubei Province is situated in Central China, a region of moderate growth and average problems. The Provincial Development and Reform Commission (PDRC), the administrative body that is responsible for implementing the ETS, therefore was obligated to position the Hubei ETS against the backdrop of other pilots that were perceived as superior. In the pilot phase, the "average" argument was used as a starting point. As one interviewee put it, Hubei was the only ETS pilot in Central China. It had an average industrial structure, an average growth rate, and average carbon emission challenges. The Hubei experience was therefore crucial for the building of a national ETS. If ETS could work in Hubei, it would work in China.<sup>7</sup> However, this averageness was only a starting point. Slowly but surely, the PDRC and other actors began to discuss Hubei's goal of becoming the future hub of China's national carbon market. The China Hubei Carbon Exchange (CHEEX), which was launched in 2014, is a state-owned company with a staff of approximately 40 people and is situated in the central business district of the provincial capital of Wuhan. CHEEX

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<sup>7</sup> Interview, economist, Wuhan University, 24 November, 2015.

established an electronic trading platform on which trades can be publicly observed in real time.<sup>8</sup> Additionally, it provided a registry, a necessary component for the transfer of allowances from one account to another. The provincial government had created a vision of its future as the central trading place for the nationwide carbon market. This vision included numerous coordination tasks, including supporting carbon markets in other provinces through training and technical support, supervising certifiers, creating a national carbon finance center in which all financial, organizational and technical services are located, introducing new financial instruments, and initiating carbon futures trading.<sup>9</sup> The vision culminated in a picture of the future central building in Wuhan, where all elements of the carbon markets and carbon finance, including the flow of money, information and services, would be concentrated.<sup>10</sup> To support this vision, several carbon finance instruments had already been created,<sup>11</sup> and representatives of CHEEX were actively looking for foreign service providers to offer their business in Hubei.

### **Making trading smooth and liquid**

When the seven ETS pilots were launched in 2014, huge differences among them became apparent in terms of both trading activities and trading frequency and volume. Shenzhen, for example, reported a high trading volume but had few continuous trades over time. Chongqing, the only ETS pilot in West China, seemed to have a general problem of over-allocation, resulting in a lack of trades. Guangdong required companies covered by the ETS to purchase allowances at a set price of 60 yuan, which is strangely at odds with even basic market principles (Zhang 2015b: S114). In contrast, Hubei prided itself on achieving a liquid market in which allowances were traded with continuous frequency at a relatively stable price; this proved successful from the start.<sup>12</sup> This was achieved through a combination of incentives that included both sticks (to emitters) and carrots (to investors). Achieving active trading behavior in a newly created ETS is not always easy because the emitters' only legal obligation is to return a sufficient amount of carbon allowances at the end of a commitment period.

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<sup>8</sup> <http://www.hbets.cn>, accessed 7 April, 2017.

<sup>9</sup> Interviews GIZ 2 April, 2014; CHEEX 23 November, 2015; MDRC 3 April, 2014.

<sup>10</sup> Interviews CHEEX 23 November, 2015; CHEEX 26 November, 2015.

<sup>11</sup> "The first allowance futures contracts were traded in the Hubei pilot on March 31 [2016], promoting the diversification of carbon market derivatives and contributing to financial innovation in emissions allowances. The new product is expected to stimulate market liquidity and investment in the Hubei pilot" (PMR 2016: 6).

<sup>12</sup> Interviews CHEEX 23 November, 2015; economist, Wuhan University 24 September, 2015.

Whether or not the emitters engage in trading activity to get to the correct number of allowances is, in theory, left to their own discretion. In the first trading year, the Hubei ETS covered 138 enterprises. To many of these enterprises, the ETS was a new and unknown instrument that was perceived as yet another burden imposed by the government.<sup>13</sup> Other enterprises did not believe that the problem of emission allowances would be relevant to their production and investment decisions. Consequently, the ETS was initially considered a low-priority issue by top management.<sup>14</sup> Some initial training was provided, e.g., by the PDRC in collaboration with the CHEEX and development agencies,<sup>15</sup> but willingness initially remained low, not unlike the situation with companies in the EU ETS during the initial trading period (Engels 2009). The provincial government thus created a heavy stick for covered companies that consisted of several instruments. Although the initial allocation of allowances to companies was free, the government created short positions for some large emitters. The government avoided total over-allocation so that numerous companies would experience demand for additional allowances at the end of the compliance year. Financial sanctions for non-compliance were introduced; a company with an insufficient number of allowances at the end of the compliance year would be fined in an amount triple the carbon price. The non-compliant company would also experience a further allowance cut for the following year. In addition, it would not receive access to funding schemes for energy conservation projects.<sup>16</sup> Using these methods, the government ensured that many companies traded at least once at the end of the compliance year. Many companies were surprised by the costs that they incurred.<sup>17</sup> The impression shared by several interviewees was that emitters paid more attention to the requirements the next trading year. In many cases, the ETS issue had moved to the top management ranks.<sup>18</sup> However, trading only once at the end of a compliance period does not create a “liquid market.” Therefore, the PDRC and CHEEX created incentives for other investors. As the first ETS pilot, Hubei allowed both institutional and individual investors to

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<sup>13</sup> Interviews car manufacturing company 2 April, 2014; steel company 24 November, 2015.

<sup>14</sup> Interview economist, Wuhan University 24 November, 2015.

<sup>15</sup> Interviews GIZ 7 March, 2014; car manufacturing company 2 April, 2014; CHEEX 23 November, 2015.

<sup>16</sup> Interviews CHEEX 23 November, 2015; CHEEX 26 November, 2015.

<sup>17</sup> Interview CHCI for ETS 26 November, 2015.

<sup>18</sup> Interviews CHEEX 26 November, 2015; economist, Wuhan University, 24 September, 2015.

trade allowances at the CHEEX.<sup>19</sup> This widened the field of market participants beyond emitters, opening a secondary market. More than 1000 investors were mobilized to trade allowances at CHEEX.<sup>20</sup> These investors engaged in daily trading transactions, although each individual transfer may not have represented a high volume. Following the example of the Hubei ETS, the inclusion of investors was soon adopted by other ETS pilots. Hubei also allowed participation by individual and institutional investors from overseas, a practice that otherwise existed only in the Shenzhen ETS (Environomist 2016: 58–59).

### **Appearing market-like in market reports and market outlooks**

Creating a coordinated vision for the future of Hubei as a hub of the Chinese carbon market also requires that this vision be recognized by important others in addition to immediate market participants. Therefore, marking the Hubei ETS as widely known and increasing its recognition is another aspect of the valuation process. Interviewees often referred to the public attention that they received, e.g., by emphasizing that the opening of the CHEEX received national news coverage or by categorizing its opening as one of the top ten economic events of 2014 in Hubei Province.<sup>21</sup> One particularly consequential type of recognition came from market analysts. The number of market analysts observing carbon markets has increased substantially over the years both in China and internationally, and many of the institutions with which these analysts are associated regularly publish market outlook reports. These institutions and reports include the International Emissions Trading Association (IETA), several units of the World Bank Group, carbon service consultants such as the Environomist, Econet China, and the China Carbon Forum, and the weekly magazine *The Economist*.<sup>22</sup> In a comparison of market reports issued in 2013 and those issued in 2015 and 2016, the growing recognition of the Hubei ETS pilot became apparent. The early assessments merely mentioned Hubei, which is a province of almost 60 million inhabitants in Central China, and they focused on the fact that seven ETS pilots were about to be launched. These assessments raised a number of critical points that would have to be addressed. The outlooks ranged from careful to skeptical, for example, with regard to

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<sup>19</sup> Interview CHEEX 23 November, 2015.

<sup>20</sup> Interviews CHEEX 23 November, 2015 and 26 November, 2015.

<sup>21</sup> Interviews CHEEX 23 November, 2015; economist, Wuhan University 24 September, 2015.

<sup>22</sup> It would be an interesting study to examine how these market reports refer to each other and how they use several types of “evidence,” “best guesses” and expert translations of documents from Mandarin into English to achieve shared sense-making of the emerging Chinese carbon markets.



the potential for a secondary market to emerge: “... realistically speaking, Chinese ETS pilots will not allow futures or derivatives during the pilot phase” (IETA 2013: 47). The general tone of these early reports was that delays and problems were to be expected: “[a] couple of pilots may fail to meet the deadline this year” (IETA 2013: 45). The early reports sometimes directly mentioned Hubei as a comparatively weak pilot. For example, the China Carbon Pricing Survey 2013 expected a delayed start in Tianjin, Hubei and Chongqing and the second-lowest allowance price in Hubei (Jotzo et al. 2013: 5). In its overall rather negative assessment of ETS pilots in China, *The Economist’s* Intelligence Unit reasoned that “Guangdong and Shanghai are main contenders to house a national hub,” whereas Hubei was not mentioned at all (*The Economist* Intelligence Unit 2013: 2). This outlook changed considerably within two years; market outlooks published in 2015 and 2016 have acknowledged and commented on the strong development of the Hubei ETS. Although it did not systematically analyze differences across the seven ETS pilots, the China Carbon Forum positively acknowledged the Hubei ETS in its China Carbon Pricing Survey 2015 (de Boer et al. 2015: 9). The most extensive recognition of the extent to which the Hubei ETS already resembled a market-like ETS can be found in a 180-page report published by the Environomist, a carbon consulting company, in 2016. In a systematic comparison of the seven ETS pilots, it was first mentioned that the “most stable carbon markets were the Hubei and Shenzhen ETs, and Hubei has the largest domestic market, with a market share that accounts for approximately 43% of the national total” (Environomist 2016: 60). As became clear later in the report, “stability” referred to a relatively high trading volume, low volatility of the carbon price, and frequent trading activity (Environomist 2016: 71). The report assembled comments from various consulting firms and the United Nations Development Program (UNDP). The latter was quoted as commenting at length on Hubei and explaining the relevance of Hubei’s success:

Interestingly, it is Hubei, ranking the lowest in economic terms (GDP per capita around US\$7675 in 2014) among the seven, but therefore a region with further growth potential, that has actually realized the highest absolute trading volume at 1.6 million tons, which is more than 6 times the scale of other pilots. The success may owe to the active participation of firms, which with the help of clean technology become progressive credit sellers in the market given the surplus of allowances left from the credits initially allocated for free. The success in delivering strong trading demonstrates the feasibility of implementing carbon trading in less developed but growing countries, particularly when the economy faces a healthier restructuring towards low-carbon growth. (Environomist 2016: 89/90; comment by UNDP)

The Hubei pilot was also featured prominently when the aspects of carbon markets that are most market-like were discussed. For example, some allowances were allocated by auction (ibid.: 148), and Hubei hurried to introduce carbon bonds, carbon investment funds, carbon emissions mortgage financing, and other novel carbon finance instruments (ibid.: 123). Finally, the summary assessment of a Dutch carbon service provider was quoted: “In the past year, we have seen a good development in trading in the seven pilot areas. A few markets are now looking fairly mature (for instance, Shanghai, Guangdong and Hubei)” (Environomist 2016: 167). This view was shared in other reports: “Since January 2016, Shenzhen has become the most active pilot market (36% of the total trading volume), followed by Hubei (34%). [...] Hubei was the only pilot to have transactions every day (i.e., it did not close during the Spring Festival)” (PMR 2016: 1, 6). The Hubei vision of a strong and well-functioning carbon market was increasingly recognized by market analysts around the world, and the proven feasibility of ETS in China in general and in Hubei in particular provided another important building block for global policy debates on how best to achieve decarbonization.

### **Putting an actual price on carbon in the Hubei ETS**

The risk of generating a carbon price that is too low to incentivize effectively low-carbon investments was widely discussed in the early phases of the Chinese ETS pilot.<sup>23</sup> However, fears among regulated emitters typically included the possibility that market prices could become too high and threaten their economic viability. Although provincial governments might want a well-functioning ETS, they would not be willing to put their major industries at risk. Consequently, the provincial government needed to avoid a low price that would be meaningless and, thus, a failure. Similarly, price turbulence was unwanted, and an excessively high price would harm Hubei companies that had already begun to suffer from slowing economic growth. The ideal ETS was perceived as one that created a stable business environment for companies in which expectations about future price developments could be built and become reliable.<sup>24</sup> Therefore, the achievement of a CO<sub>2</sub> allowance price falling somewhere between worthlessness and cost containment that remained stable over time became a goal in itself. The PDRC worked toward this goal by orchestrating an integrative consultation process aimed at finding the “right” carbon price and assessing ways of reliably

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<sup>23</sup> Interviews GIZ 21 September, 2015; CHEEX 26 November, 2015.

<sup>24</sup> Interviews economist, Wuhan University 24 September, 2015; CHEEX 26 November, 2015.

achieving this price.<sup>25</sup> Whereas 70 percent of the allowances were initially allocated at no cost to the emitters, an auction of 30 percent of the remaining reserve at a set price was organized.<sup>26</sup> The aim of the consultation process was to formulate a price that would signal to market players where the government thought the price *should* be. The consultation process involved the PDRC, CHEEX, foreign experts and several Wuhan-based research institutions. Numerous valuation devices were used, including forecasting exercises on energy demand, general equilibrium models to identify an optimal price for the Hubei market, and careful observation and monitoring of EU price development as well as of price developments in other Chinese ETS pilots. Several interviewees recalled that the price of 20 yuan (a little less than 3 euros at that time) was considered a psychological barrier that should not be crossed, because a lower price would signal that the ETS did not play a meaningful role in the provincial development plans. In addition to this floor price, a cost limit for the covered companies was created.<sup>27</sup> In sum, we suggest interpreting the process of actual price-making as a state-led, scientized consultation process that resulted in a floor price of 20 yuan. The aim was to generate a “rational” price and achieve moderate price increases over time.<sup>28</sup> An auction price of 20 yuan was below the already-low EU ETS price. Nevertheless, in the Chinese context, it was not meaningless. The price increased moderately until mid-2016 without displaying strong volatility. Although some interviewees claimed that companies began to invest in technological improvements during the second compliance year, it is beyond the scope of this article to verify that claim. However, in the second half of 2016, the carbon price dropped substantially below 20 yuan (ChinaCarbonNet 2017), although the trading volumes and frequencies remained high. It now seems that despite great state coordination, it was not possible to create a situation in which the market could establish a higher price over a sustained time period.

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<sup>25</sup> Interviews economist, Wuhan University 23 September, 2015; CHCI for ETS 26 November, 2015.

<sup>26</sup> Interviews economist, Wuhan University 23 September, 2015; CHEEX 11 May, 2016.

<sup>27</sup> Interviews CHEEX 23 November, 2015; economist, Wuhan University 24 November, 2015.

<sup>28</sup> Interviews economist, Wuhan University 24 November, 2015; CHCI for ETS 26 November, 2015.

**Pricing carbon at the company level?**

Officially, the Hubei ETS led to emission reductions of 3.14 percent from 2013.<sup>29</sup> Differentiated by companies and sectors, most of the companies and six of the nine industries reduced their emissions in absolute numbers.<sup>30</sup> In an interview with one of the large emitters, this success story was placed in perspective. The company's allocation of emission allowances represented a 10 percent reduction goal, which initially seemed to require the purchase of additional allowances. However, this goal later proved so easy to achieve that some allowances could be sold on the market. The interviewees acknowledged that 95 percent of the "achieved" reduction came automatically from the slowing economy and a related drop in demand and was not linked to any low-carbon activities. The remaining small fraction of "reduced" emissions came from energy conservation measures. Interviewees associated with a different state-owned company explained that the initial reluctance to begin trading allowances slowly gave way to an acceptance of the trading instrument. The switch was explained not by referring to any calculation based on the monetary value of the allowances but by the moral obligation for state-owned companies to follow state-issued policies. In the interview, active participation in the ETS pilot was compared to the concept of Corporate Social Responsibility (CSR), which was interpreted as an act of alignment with political requirements.<sup>31</sup> Allowance trading was thus interpreted as a political activity, not as a monetary alternative to it. We would like to use this last example to demonstrate that even if carbon market participants deal with a seemingly clear monetary value, they might combine it with alternative valuation options.<sup>32</sup> It may be that the process of "putting a price on carbon" can be shown in later studies to combine monetary and non-monetary valuation aspects in ways that are usually overlooked by market theorists.

**Summary of Case Study Results**

To address the question of how carbon pricing was achieved in the Hubei ETS, we analyzed the carbon valuation process as an enormous coordinative effort within a complex and fluid multilayer system. To become recognized as a potential prototype for the future nationwide carbon market, market builders had to find ways to manage the many uncertainties that emerged from Chinese politics, economic

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<sup>29</sup> Interviews CHEEX 23 November, 2015; CHEEX 26 November, 2015; economist, Wuhan University 24 November, 2015.

<sup>30</sup> Interview CHEEX 23 November, 2015.

<sup>31</sup> Interview steel company 24 November, 2015.

<sup>32</sup> For a similar argument on the EU ETS, see Knoll 2015.

development, and competition among the seven ETS pilots. We conclude that both central and provincial governments played an important role in all aspects of the valuation process. Central government provided the broader framework and established low-carbon growth as a fixed reference point in central planning. The provincial government was critical to the stabilization of a coordinated imagined future by creating a strong vision of Hubei's future role as a hub of the national carbon market. By applying a broad set of sanctions and incentives, it successfully promoted smooth and frequent trading activity. The Hubei ETS thus succeeded in being market-like, an observation that was increasingly shared by carbon market analysts. The price of carbon in the Hubei ETS was established via a state-led, scientific consultation that generated a reference price that provided an orientation signal to market participants which indicated where the government wanted the price to be. Putting a price on carbon therefore represents the outcome of a long and complex process of valuation *through* expectation building, and recent developments show that even with this state-led process, it is not guaranteed that the price will remain high enough to be effective over longer time periods.

However, the Chinese approach to low-carbon growth does not rely exclusively on carbon pricing through ETS. Instead, it combines a heterogeneous group of alternative policies, including subsidies and state investment, the closing down of factories and power plants, voluntary programs for low-carbon cities and similar concepts, and consideration of the introduction of a carbon tax. This broad experimental approach has become typical of the Chinese mode of adaptive governance (Heilmann and Perry 2011), in which carbon markets are introduced in a pragmatic way.

### **Discussion: The Value of a Valuation Perspective for Theorizing about Society and Climate Change**

In this research study, we presented a case study on carbon pricing in a province in Central China that would contribute to three broader issues: theorizing about society and climate change by applying a valuation perspective; contributing to the debate on policy choices for carbon mitigation; and understanding how and to what extent China is switching to a decarbonized future. We will briefly discuss the implications of our analysis for these three questions.

Adoption of the valuation perspective helped us theorize about the interactions between climate change and social change without buying into deterministic assumptions about the impact of climate change on society. In many instances social change does not occur as a direct reaction or response to climate change but rather indirectly, or in reaction to completely different social dynamics. We have shown the

beginning of a re-evaluation of the Chinese growth model not because of, but in the context of international climate negotiations and in combination with growing domestic crises. New values such as ecological civilization were proposed to harmonize the conflicting orders of economic growth and ecological integrity. In a very complex multilevel setting, this was gradually translated into a national climate mitigation policy that included the creation of competing carbon markets in seven Chinese provinces and cities. The introduction of the ETS in China thus created a specific and very indirect society–climate relationship that produced a consequential social and material reality. New investment opportunities emerged, and new business pressures were established. These valuation processes require a great deal of work and coordinative effort in complex multilayer settings in which uncertainties abound. They are historically contingent, long-term processes, and their outcomes are difficult to predict. In the case of the Hubei ETS, even the greatest amount of work and the most coherent creation of an imagined future could not secure the long-term stability of the carbon price. Furthermore, although the UN’s recognition of anthropogenic climate change as a major threat to humankind represents a fundamental shift in the valuation of the earth and its atmosphere, this does not translate easily into coherent changes at all other levels of society. Coming back to Beck’s concept of metamorphosis, we can suggest a few of the mechanisms of change that shape the interactions of social change and climate change in the Chinese context. First and foremost, we have seen the efforts of the Chinese government to maintain political stability and therefore to engage in air pollution control. Second, the development of ETS and financial market instruments for low-carbon measures can be seen as one aspect of the wider process of developing and strengthening a financial market in China. And third, the specific form of the Hubei carbon market is the outcome of a politically induced competition between different levels of government and among the seven participating pilot regions, which is a typical way to govern difficult problems in the Chinese political system. None of these examples represents a change in the mechanisms of change (Beck 2015), but they can still open windows for deep transformation. In this sense, the valuation perspective helps us understand how the anticipation of deep change can be completely in accordance with the experience that many things stay the way they are, at least for a long time.

We also contribute to the discussion of policy choices for climate mitigation and the preponderance of carbon pricing initiatives therein. The valuation perspective allows us to closely examine both the actual process of “putting a price on carbon” and the work that is needed before carbon prices can emerge as the outcomes of markets. This perspective provides an understanding of carbon pricing initiatives and carbon markets as real-world phenomena that differ from the cleaner

versions addressed in most of the economic literature. In the case of the Hubei ETS, we have seen how economic actors had to combine the search for profit opportunities with a carefully crafted reaction to political goals declared by the Communist Party through a centralized multilevel government system. We were able to show that the role of the state was crucial to each step of this valuation process. Carbon pricing is essentially a political game and, at least in the Chinese context, ultimately depends on the strictness of the central and the provincial governments in implementing short positions and controlling compliance. One might feel tempted to explain this failure simply by a lack of market forces in the Chinese economic system. However, the experience of the real-world ETS in the European Union has demonstrated that the effectiveness of carbon markets strongly depends on the stable expectation among emitters that the prices for carbon allowances will be higher in the future than in the present, which is essentially an expectation about future carbon policies. The European Union is very different from the Chinese system in many respects, but it is an equally complex multilevel setting that thus far has failed to create a situation in which the resulting carbon price reflects the value of the atmosphere as a protective (and to-be-protected) layer of the earth. More fundamental opposition to carbon pricing and carbon markets has been expressed (Pearse and Böhm 2014). However, we believe that the valuation perspective allows us to recognize that at its core, carbon pricing is a political process of conflict and contestation over the value of established versus alternative growth models. If we keep this in mind, we can overcome the trap of discussing “elegant” market solutions against other, seemingly “clumsier” policy solutions. Climate change is a wicked social problem, and all policies aimed at promoting low-carbon development have problematic aspects. We can then engage in a much more fruitful debate on how each of these policies would have to be designed to be more effective (Patt 2015; Aglietta et al. 2015; Martin et al. 2015; Aykut 2016).

Finally, we contribute to understanding the process of how China is switching to a low-carbon growth model, even if it is too early to estimate whether, how much, and at what pace this process will lead to substantial decarbonization. The valuation perspective prevents us from making sweeping assumptions about the functioning of carbon markets and the linkage between carbon pricing and (de)carbonization outcomes. The manner in which value is produced and appropriated by various actors in the ETS is extremely diffuse. Against that backdrop, the most important insight generated in this case study is that the reasons for China to even consider transforming its energy system are not closely connected to climate change. This consideration instead occurs as a side effect of other political, economic and social pressures. The introduction of low-carbon policies is largely facilitated

because such policies are consistent with many other changes that are occurring simultaneously both in the Chinese context and globally. This is an important lesson that can also be learned from other recent studies (e.g., Anbumozhi et al. 2015). Even though climate scientists and activists may define anthropogenic climate change as the most important human problem, the social reality always consists of numerous other (more) important issues at the same time. Climate change never stands alone as the central social problem that has the ultimate long-term priority over all other issues. However, long-term and conflictual valuation processes can lead to new combinations and re-valuations so that suddenly a new (in this case, a low-carbon) direction becomes possible. This seemingly trivial insight is crucial both for understanding the linkages of climate change and social change and for finding ways to promote low-carbon transformations more effectively. The introduction of the ETS in China might have come as a side effect, but it may still generate decarbonization outcomes. In addition, the switch to a low-carbon growth model will only become a material reality if it aligns with many other priorities.

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## **Appendix: List of interviews**

German Technical Cooperation GIZ, expert 1, technical cooperation, 3 March, 2014, Beijing  
GIZ, expert 2, low-carbon policies, 7 March, 2014, Beijing  
Greenpeace China, expert, climate policies, 7 March, 2014, Beijing  
Wuhan University, lawyer, expert on ETS, 27 March, 2014, Wuhan  
National Development and Reform Commission NDRC, expert 1, energy policies, 30 March, 2014, Kaifeng  
Car manufacturing company, ETS manager, 2 April, 2014, Wuhan  
GIZ, expert 3, ETS, 2 April, 2014, Wuhan  
Municipal Development and Reform Commission MDRC, leading position in administration, low-carbon development, 3 April, 2014, Wuhan  
NDRC, expert 1, energy policies, 7 April, 2014 (via Email)  
Hubei Provincial Development and Reform Commission PDRC, leading position, power grids, 9 April, 2014, Wuhan  
Hubei PDRC, leading manager, climate change, 9 April, 2014, Wuhan  
China-EU Institute for Clean and Renewable Energy, leading manager, 10 April, 2014, Wuhan  
China-EU Institute for Clean and Renewable Energy, engineer, 16 April, 2014, Wuhan  
MDRC, leading position in administration, low-carbon development, 22 April, 2014  
MDRC, leading position, energy department, 22 April, 2014  
Germanwatch, ETS expert, 27 June, 2014, Bonn  
GIZ, expert 3, ETS, 21 September, 2015, Beijing  
Wuhan University, economist 1, 24 September, 2015, Wuhan  
Climate Change and Energy Economics Study Center, Director, 24 September, 2015, Wuhan  
GIZ, expert 1, technical cooperation, 7 October, 2015, Beijing  
Social Science Research Council, China Environment and Health Initiative, expert, 8 October, 2015, Beijing  
Solar manufacturing company, manager, 20 November, 2015  
China Hubei Emission Exchange, manager, 23 November, 2015, Wuhan  
Wuhan University, economist 1, 24 November, 2015, Wuhan  
Steel company, manager, public relations, 24 November, 2015, Wuhan  
Steel company, three managers, ETS and energy strategies, 24 November, 2015, Wuhan  
Center of Hubei Cooperative Innovation (CHCI) for ETS, economist, 26 November, 2015, Wuhan  
China Hubei Emission Exchange, top manager, 26 November, 2015, Wuhan  
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Research Note

## A Culture of Costs versus A Culture of Expenses

Barbara Czarniawska

### Abstract

When there is money spent on products of culture, are those costs or expenses? An answer to that question may be of importance not only to accountants and auditors, and it can vary among cultures. This article compares the way the issue is presented by two fiction writers, one Swedish and one British.

Key words: costs; expenses; economy; culture

An anthropological gaze upon contemporary western societies might suggest that many of them currently have economy at the center of their cultures. Certainly, it is a matter of a time and space: during times of war, defense will be at the center; at other times it could be kinship, or religion, or politics. In this text, I focus on examples from two European countries where, in my reading, economy *is* at the center: Sweden and England. As if to corroborate my thesis, my local regional newspaper, *Göteborgs-Posten*, has recently changed the name of one section, previously called “Economy/Sport” (yes, Sport is certainly number two) to “Society/Sport”. The inside is as it was before, and the subtitle of the first part says “Economy/Politics”, rightly so, as Swedish politics focuses on economy. I would not dare to extend my diagnosis of the British situation, but my intuition<sup>1</sup> tells me that this statement applies to a great many European countries.

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<sup>1</sup> On the role of intuition in theorizing, read Knorr Cetina 2014.

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I have chosen to describe this phenomenon based on representations in novels for several reasons. One is that, as Milan Kundera (1988) pointed out, the novel dealt with the unconscious before Freud did, discussed class struggle before Marx did, and practiced phenomenology before the term had been invented. Another, and somewhat in disagreement with Kundera, is that humanists and social scientists may have said all this before novelists, but nobody (read: the media) paid attention to them. The third reason for using fiction is that fiction writers are allowed to present detailed cases and ethnographic observation as metonymies for a macro picture, without the need to prove their statistical representativeness.

The thesis that economy is presently located at the center of some (or even many) contemporary cultures may not be particularly contentious; what interested me most is the different shapes it takes. I call the two different forms “a culture of costs” and “a culture of expenses”. But before I begin my analysis, there follows a short discussion about the semantic difference between the two.

### **Costs versus expenses**

In a great many texts, whether economic or general, the words “costs” and “expenses” are used synonymously. Yet a long list of Wikipedia entries that promises to explain the difference between the two indicates that I am not alone in reading them differently. Already a look at their proveniences—both from Latin—suggests that their usage may differ. Whereas “cost” comes from *costare*, to stand with; “expense” comes from *expendere*, to lay out, to pay (<http://www.thesaurus.com>, accessed 13 September 2017). Costs seem to be static, expenses mobile, although the one can be redefined as the other. Here are some examples of the definitions on accounting sites:

A *cost* might be an expense or it might be an asset. An *expense* is a cost that has expired or was necessary in order to earn revenues. (<https://www.accountingcoach.com/blog/cost-expense-2>, accessed 13 September 2017)

For accounting and tax purposes, COSTS are related to business assets and they are shown on the balance sheet. EXPENSES are related to business income, and they are shown on the business net income (profit and loss) statement. (<https://www.thebalance.com/cost-vs-expense-what-is-the-difference-3974582>, accessed 13 September 2017)

In general, costs are unpleasant, but usually necessary to bear. Expenses seem to be more volatile but closely related to income.

### **A culture of costs: An example from Sweden**

The text I have chosen is not available in an English translation, so I have to summarize most of it.<sup>2</sup> It is a novelette by Jonas Karlsson, one of the best Swedish dramatic actors, and increasingly appreciated as a writer.<sup>3</sup> It is called “The Bill”, and comprises part of a volume entitled *The Rules of the Game* (*Spelreglerna*, 2011).

The protagonist/narrator suddenly receives a bill for 5,700,000 Swedish kronor (£520,000). The logotype seems authentic, the sender is W.R.D. It is obvious that it must be a mistake (the bill was probably meant for some large company), so the narrator decides to ignore it.

A month later a reminder arrives. The new bill is for 5,700,150 kronor and is to be paid to a debt-collection company. But now it contains a telephone number in case the recipient wants to appeal. The narrator calls the number. An automatic voice asks him to describe his problem, but in the middle of the description he is informed that he will now be connected to the exchange. He is sixty-third in line, and the waiting time is about 14 hours 25 minutes. The narrator smiles at this obvious absurdity and decides to let the misunderstanding be cleared up by whoever made the mistake. He goes out to buy himself an ice cream, but it seems to him that people in the line and people he meets in elevator are all speaking about how much they need to pay. And where will they get the money?

The narrator remembers that avoiding the debt collector may have unpleasant consequences, and the next day he decides to ring the number again. The waiting time is only 11 hours, so he waits. His call is not answered until the next morning. The woman who talks to him explains that no mistake has been made. Has he not read the newspapers, watched the TV or listened to the radio? The narrator admits that that is indeed the case. The woman tells him that it is time to pay. They continue their conversation:

“To pay for what?” I asked the woman on the phone.

“For everything”, she said.

“What do you mean by everything?” I wondered.

“Where are you now?” she asked.

“At home”, I said.

“At home. Right. Look around you. What do you see?”

I looked around.

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<sup>2</sup> All translations from Swedish in this text are mine, BC.

<sup>3</sup> Karlsson’s theatrical background is revealed in his lively dialogues, which compel me to quote them at some length.

“I see my kitchen”, I said.

“Mhm, and what do you see there?”

“Eh ... a sink. Some dishes to be washed ... A table.”

“Look through the window.”

“Ok.”

I got up and went to the kitchen window.

“What did you see there?” said she into the receiver.

“A house”, I said. “And some trees ...”

“What more?”

“More houses, and a street, some cars...”

“And then?”

“I see blue sky, sun, some clouds, people, children who are playing on the sidewalk, adults, shops, cafés ... People who talk to one another ...”

“Exactly. Can you smell anything?”

“Eh ... yes.”

I inhaled the air from the street. It was sweet, full of summer odors. Flowers, some bush perhaps? A bit of old food? A weak smell of something rotten and of gasoline. A typical summer scent, almost southern. I could hear a moped.

“You have a feeling, right?” she continued. “You have feelings, you have fantasies, you have friends and acquaintances. And you dream, don’t you?”

She didn’t even wait for an answer.

“What do you mean?” I interrupted.

“Do you dream during the night?” she asked.

“Sometimes”.

“Right. And you think all this costs nothing?”

I was silent a moment.

“Well, I thought ...”

“Is this what you thought?”

I was trying to find an answer but my thoughts ran in circles without any attempt to find a form. In the meantime, the woman on the phone continued with the long speech about allocation costs, decisions, single payments, and reduction systems. It seemed that she was reading something aloud.

“But how could it have become so much?” I asked when I recovered my speech capacity.

“Oh well. It is costly to live”.

I was silent again because I didn't know what to say.

“But ...” I said in the end, “that it was so expensive ...”

He tries saying that he is a reliable taxpayer, but she explains that tax covers only the daily upkeep. She adds that it is tiring to explain this again and again; they had such a widespread campaign explaining all the details.

“But it is impossible”, I said. I have only something like fifty thousand in the bank.”

“Your flat then?”

“Tenancy.”

“Have you any objects of value?”

“Eh, no ... the TV?”

“No, TVs are worth nothing nowadays. Is it big?”

“Not really, thirty-two.”

“Forget it. A car?”

“No.”

“Not good”, she sighed. “You will pay as much as you can. Then we will do an inventory of what you have at home and see what it is worth. Then we shall see what kind of debt you will end up with.”

“And what happens then?”

“It depends how much it will be.”

“What do you mean?”

“We have a debt ceiling.”

“What is that?”

“It means that we only allow debts up to a certain sum ... I mean, in order to have a continuous access to ...”

“To what?”

“To ... everything”.

“Will you kill me?”

She laughed. It was obviously a stupid question and I felt better hearing her laugh.

“No”, she said. “We will not kill you. But you must understand that you cannot continue to enjoy living without paying for it.”

She makes him recall many happy experiences from his life, and the conversation ends with her assuring him that he will certainly find a solution if he thinks about it for a while. She gives him her name and a direct telephone number. He calls later to ask what happens if he goes abroad? He will be on the “Wanted” list, is the answer. The woman reminds him that in the past he had answered several surveys claiming that he enjoyed his life in full, that his childhood was happy, and that he liked his job.

An investigation into the authority that sent the bill reveals that its name is World Resources Distribution. A visit there and direct contact with the woman he talked to on the phone and her colleague results in the discovery that the bill was wrong. Actually, he needs to pay 10,480,000 kronor (about a million pounds). Back home, he listens to his friend, Roger, who always complains about life and now complains about *his* bill: 220,000 kronor. Another attempt to lower the bill raises it to 14,950,000 kronor. The woman explains the situation to him:

“You do not understand it, do you?” she said at last.

“What now?” I said.

Her voice became low, almost a whisper.

“People are very unhappy. Most people feel horribly. They have pain. They are sick and take medicine; they have anxiety; they are afraid and worry about lots of things. They can be stressed or even in panic; they mourn; they have bad consciences, impossible achievement goals, concentration problems; or they are simply bored, feel questioned, feel that they are unjustly treated, cheated, failures, guilty, *you name it*. Most people, if they are lucky, experience some contentedness in their childhood. It is only then that they get their points. After that it is dark. If you only knew ...”



In the end, the narrator is taken to the W.R.D.'s office by the guards. Apart from the clerk he has met before, there are two representatives from W.R.D. headquarters in Addis Ababa. The foreign visitors couldn't believe the amount of the narrator's debt. But as the house inventory showed that he owns nothing of value, as it is clear that he will not be able to earn any more money, and as they cannot kill him, the situation must remain as it was. As the narrator says:

Only I knew that I was possibly the happiest person in the country. And this free of charge.

Commentaries on the novelette noted that the text was obviously inspired by Kafka. Nevertheless, it is much lighter in tone; whereas Kafka's stories are tragi-comic, this is absurdly comical. Still, it obviously relates to the present situation of the welfare state in Sweden. The baby boomer generation gets old and sick, but it has a much longer life expectancy than previous generations. What is worse, it is exactly the people of the narrator's age—forty-something—who are expected to live for one hundred years, and who are not making much money now. Who is going to pay for their retirement and health care?

Cost reduction is the catch phrase in the Swedish welfare system right now. It concerns health care, care of the elderly, social security, and schools (although the negative Pisa results are now being used to prove that school finances must be raised). "Lean production", the Japanese management invention that seemed to have vanished from industry, made a triumphant comeback in public administration (Ratner et al. 2014; Thedvall and Tamm Hällström 2015). The economy is at the center of culture, and it means primarily one thing: the welfare state must cut costs.

### **A culture of expenses?**

John Lanchester's *Capital* (2012) is dedicated to people living (and working, in the case of an unavoidable Polish builder) in Pepys Road, South London. Previously a lower-middle-class setting, it is now increasing in value.

For the first time in history, the people who lived in the street were, by global and maybe even by local standards, rich. The thing which made them rich was the very fact that they lived in Pepys Road. They were rich simply because of that, because all of the houses in Pepys Road, as if by magic, were now worth millions of pounds.<sup>4</sup> (2012: 6)

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<sup>4</sup> For an example from real life, see [http://www.theguardian.com/money/2014/apr/07/londons-most-expensive-street-kensington-palace-gardens?CMP=fb\\_gu](http://www.theguardian.com/money/2014/apr/07/londons-most-expensive-street-kensington-palace-gardens?CMP=fb_gu), accessed 10 September 2017.

The inhabitants vary—from old British persons to young foreigners from different countries and backgrounds—but there is one family that represents the contemporary Londoners. It is the family of Roger and Arabella Yount. Roger is employed at Pinker Lloyd bank, and, although he would actually be a better fit with “the old City of London” (“he ... had come to work at Pinker Lloyd in the time when the City was more about relationships and less about math” [2012: 27]), he is doing very well indeed. He “had the habit, one he wanted to grow out of but was well aware that he hadn’t, of buying lots of expensive gear when he thought of taking up a new hobby” (2012: 105). But these were only small expenses, and Roger wanted to earn a million-pound bonus:

He wanted a million pounds because he had never earned it before and he felt it was his due and it was a proof of his masculine worth. But he also wanted it because he needed the money. The figure of £1,000,000 had started as a vague, semi-comic aspiration and had become an actual necessity, something he needed to pay the bills and set his finances on the square. His basic pay of £150,000 was nice for what Arabella called “frock money”, but it did not pay even for his two mortgages. The house in Pepys Road was double-fronted and had cost £2,500,000, which at the time had felt like the top of the market, even though prices had risen a great deal since then. They had converted the loft, dug out the basement, redone all the wiring and plumbing because there was no point in not doing it, knocked through the downstairs, added a conservatory, built out the side extension, redecorated from top to bottom (...) They had added two bathrooms and changed the main bathroom into an en suite, then changed it into a wet room because they were all the rage, then changed it back to normal (although *very de luxe*) bathroom because there was something vulgar about the wet room (...) Arabella had a dressing room and Roger had a study. The kitchen had been initially from Smallbone of Devizes but Arabella had gone off that and got a new German one with an amazing smoke extractor and a colossal American fridge. (Lanchester 2012: 22–23)

They have a Bang & Olufsen system, and a Damien Hirst painting. They also own a country house, which they acquired for one million pounds, and then renovated for a quarter of a million. The house has a subsidiary cottage, which they acquired and renovated for half a million pounds. They have three cars, a BMW for Arabella’s shopping, a Lexus for the family (used by the nanny), and a Mercedes for Roger, belonging, however, to the bank. They spend £2,000 a month on clothes, and as much for household equipment. And, of course, everything in London is expensive: restaurants, cinemas, parking.

In the eyes of the Polish builder (no matter how incorrectly portrayed),

You (...) couldn’t fail to notice the expense, the grotesque costliness of more or less everything, from accommodation to transport to food to clothes (...) everything was so expensive because the British had lots of money. (2012: 81)

The Polish builder worked for the Younts, among other inhabitants of Pepys Road, especially when the owners were on holidays. “They would be staying in expensive hotels and doing whatever it was people did when they went to expensive places—sit by the pool with expensive drinks, eat expensive food, talk about other expensive holidays they might go on and how nice it was to have so much money.” (2012: 120)

Roger Yount’s bonus turned to be a miserly £30,000; then his deputy turned out to be a rogue trader, Roger was fired, and soon afterwards the bank collapsed. All these events failed to impress Arabella. Informed by Roger about the loss of his job, she went shopping to cheer herself up.

The idea of luxury, even the word ‘luxury’, was important to Arabella. Luxury meant something that was by definition overpriced but was so nice, so lovely, in itself that you did not mind, in fact it was so lovely that the expensiveness became a part of the point, part of the distinction between the people who could not afford a thing and the select few who not only could, but also understood the desirability of paying so much for it. Arabella knew that there were thoughtlessly rich people who could afford everything; she didn’t see herself as one of them but instead as one of the elite who both knew what money meant and could afford the things they wanted; and the knowledge of what money meant gave the drama of high prices a special piquancy. She loved expensive things because she knew what their expensiveness meant. She had a complete understanding of signifiers. (2012: 49)

After Roger lost his job, the Younts had to sell the house and move to the country house. His prospects for future employment did not look good. He did hope that Arabella would understand that things could not go on as before, but she didn’t. “On the contrary, she showed every intention of going on as she was for ever. No Plan B. It was labels, logos and conspicuous consumption all the way” (577). The last sentence in the book is Roger thinking, “I can change, I can change, I promise I can change change change.” (577).

It seems obvious that Lanchester meant it as an allusion to the fact that the 2007–10 crisis did not change the behavior of the bankers and the traders. Perhaps they are all married to Arabellas.

Georges Bataille claimed in 1984 [1933] that “Today the great and free forms of unproductive social expenditure<sup>5</sup> have disappeared” (1984 [1933]: 124). By those forms he meant, however, the extravagances of the Byzantines and the wealthy Romans’ games and cults. “Around modern banks, as around the totem poles of the Kwakiutl, the same desire to dazzle animates individuals and leads them into a system of petty displays that blinds them to each other, as if they were staring into a blinding light” (ibid.). Eighty-four years later, the observation still holds.

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<sup>5</sup> The original paper by Bataille was called “La notion de dépense” – “The notion of expense” – which was translated as “expenditure”, a term much closer in meaning to “cost”. Bataille divided expenses into “productive” and “unproductive”.

### **Economies and cultures**

No doubt both fictional descriptions are exaggerated, and there are some similarities—not merely differences. First of all, I use “culture” in the narrow sense of the word, not in the sense of “national culture”. After all, the British public administration is highly cost aware, and there are bonus scandals in Sweden (ABB, Volvo, and Scania, to recall three). There is ongoing imitation, and the New Public Management came to Sweden primarily from the UK. Still, there are differences in proportions: it is noteworthy that the whole happy life of Karlsson’s narrator has the same value as Roger’s potential bonus ... Second, both texts are satirical, though Karlsson’s satire has a sharper edge. The point is, what would happen if a welfare state began treating its costs as expenses? Obviously, Karlsson’s narrator did not produce the expected income, so now he has to return the money that was invested in him. The expenses of Yount’s family—both Roger’s bonuses and Arabella’s shopping—did not bring any income; it is high time to treat them as costs. Are such costs justified within the financial sector?

Such variations in understanding the difference between costs and expenses are also of significance for the relationship between economy and culture in the narrow meaning of the term culture: the arts. Bengt Jacobsson has written a book in Swedish called *Cultural Policy* (*Kulturpolitik*, 2014), which portrays the history of Swedish national cultural policy since 1972. This period is key, because Jacobsson found out that the cultural policy remained the same during 42 years, but the means of actualizing it and the purpose of doing so changed dramatically.

The state investigation from 1972, strongly under the influence of the then Minister of Education, one Olof Palme, concluded that “Until now, culture has played a marginal role in society” (Jacobsson 2014: 11). This needed to be changed, and the purpose of the change was to counteract the negative impact of the commercialization of Swedish society. It was necessary to invest in culture, and seriously so, in order to counteract capitalism’s evil influence. Culture policy was to contribute to the new and wider concept of welfare.

The Minister of Culture stated in 2007 that the cultural policy decided in 1974 as a result of the 1972 investigation, in spite of many years that had passed, remained up-to-date. Culture still plays a marginal role in Swedish society, and it needs to be supported—not because it counteracts commercialization, but because it is a crib of innovation and entrepreneurship, and can therefore contribute to full employment and economic growth. Thus, there is no need to invest in culture, or if any such investment is made, it is because the return-on-investment is guaranteed. Culture must not cost, it must earn its keep, and more than that. “Cultural and creative industries”, such as experienced industry, are the way to a more profitable future. We live,

or should be living, in a “creator economy”. Time to change costs into expenses when it comes to culture seems to be the temporary message.

How is culture seen in the economy of expenses, then? Pierre Guillet de Monthoux during a seminar at the University of Gothenburg on 4 April 2014 quoted a British billionaire as saying that in the global economy, all things look the same, and a work of art is the only luxury that remains. Clare McAndrew, author of the TEFAF (European Fine Art foundation) report from 2010, claimed that a change in luxury spending habits caused by the recession has helped the international art and antiques market weather the global economic storm. Luxury buyers decided that art maintains its value in time. “Smitty”—Lanchester’s cruel (and in my opinion unfair) caricature of Banksy—says: “Art was a business, which may not be your favorite fact about it but was a fact you were unwise to ignore” (2012: 251). Here, then, is where the present economies meet: art-making is, or at least should be, money-making. Moneys spent on culture are expenses, and should be treated as such.

Authors of Swedish cultural policy from 1974 would be appalled. Artists and others who believe in “art for art’s sake” would be appalled. Researchers, however, should remain calm. Some artists always made enormous amounts of money, and were extremely successful businessmen (not so often businesswomen); others died starving. Some of them compromised their art for money’s sake; others did not. The history of the encounters between business and the arts seems to promise many fascinating discoveries, and may have lessons to offer.

My university has recently created the Business & Design Lab, where—primarily—business and management people are to teach designers how to succeed in business. Pierre Guillet de Monthoux, at present the Director of the Center for Arts, Business & Initiative at Stockholm School of Economics, and Lisbeth Svengren Holm, Professor at the Lab, noted (at the seminar mentioned previously) that artists easily turn failures into development pivots. As modern capitalism relies on failure rather than on success (Guillet de Monthoux and Statler 2012) perhaps designers should be giving courses in failure to the students of business and management.

None of this means that the idea that culture should produce profits does not meet with opposition. Lars Strannegård, the President of Stockholm School of Economics, and previous Director of the ABC center (which is acting under the patronage of the same Ministry of Culture), claimed that

The utilitarian rhetoric has penetrated so many cultural domains that it is about time to recall what economy is *de facto* about. Economy is about managing resources, and resources are tools for achieving something. Growth and increased resources are never goals as such, but only means to achieve something else. And

this something else is about the possibility of living a life that is solidaric, meaningful, comfortable, healthy, full of love. Economy and growth are here only to create and maintain the possibility of such a life. In other words, economy is the means and culture is the goal. (<http://www.kulturradet.se/nyhetsarkiv/Kronikor/Mars-2014/>, accessed 10 September 2017)

A journalist at *The Guardian* wrote an open letter to the newly appointed UK culture secretary:

Dear Mr Javid,

We've never met, but that's because I work in "culture" and you have spent most of your adult life so far in banking.

It's very difficult to see from your Wikipedia entry or from the kind of information you put before us by Huffington Post how you are qualified to do this new job as culture minister. (<http://www.theguardian.com/commentisfree/2014/apr/11/open-letter-sajid-javid-culture-secretary-michael-rosen>, accessed 10 September 2017)

The letter ends with "So I'm not holding out any hopes", and indeed it is difficult to believe that these protests of some scholars and some journalists will end the "culture as profit maker" wave very soon.

There is another possible course of action, which, at first glance, may seem to be going directly against the stance of "art for art's sake". Many critical management scholars protest against presenting as "business cases" such initiatives as diversity or gender equality programs (see e.g. Litvin 2002). Obviously, this is now being done with art: "Art is good for business; let's have more art". Should we, organization scholars, oppose such a stance? Here, I would like to put forward for consideration a startling suggestion by Peter Berger (2011):

One must, as far as possible, work with the logic of institutions. Business is an institution whose logic is profit seeking. To want business to act as moral agency is like wanting an elephant to tap dance. Hegel used the telling phrase 'the cunning of reason.' Let me paraphrase: To achieve moral results in the real world is to practice the cunning of conscience. (Berger 2011: 220)

In short, if presenting art as a "business case" will promote diversity, equality, and art, it should perhaps be presented as such. It remains to be seen what the consequences would be, but there are certainly many attempts to do just that (see e.g., Calcagno and Panozzo 2015; Johansson Sköldbberg et al. 2016). It may turn out, that the expenses directed on culture bring more income (in many senses of the word) than those costs of unregulated finance markets that we all have to share.

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Research note

## Valuation Mishaps and the Choreography of Repair

Claes-Fredrik Helgesson and Steve Woolgar

### Abstract

This research note proposes that it is instructive to ask what happens when evaluative practices go wrong. It shows how a close study of mistakes and mishaps in evaluation—both in the process of their disclosure and subsequent management—provides important insights into ways in which evaluation practices contribute to performing and sustaining the relations of accountability involved. The note examines two cases: 1) the mistaken award of the 2017 Oscar for Best Picture and 2) the incident in November 2016 when Thomson Reuters notified a large number of scholars that they had been awarded the distinction of being a “Highly Cited Researcher” in their field, only a few hours later to retract these awards. Studying such instances provides insights into what is at stake for participants, the choreography of performing and revealing evaluations, the ways in which different evaluation practices fold together, and the accountability structures which support valuation practices.

Key words: mistakes; mishaps; repair; evaluation practice; accountability relations; choreography

### Evaluation Mishaps in the Spotlight

What happens when an evaluation mishap occurs in public display? What can we learn about valuation practices if we examine such mishaps? How are such mishaps publicly repaired? The mistaken announcement of “La La Land” as winner of Best Motion Picture at

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the Academy award ceremony in 2017 drew our attention to these questions. It has previously been noted how valuations sometimes are devoured as a public spectacle such as in televised shows like the *Antiques Roadshow*, *American Idol* and *Dragons' Den* (Muniesa and Helgesson 2013). More broadly, prizes and awards are regularly presented at ceremonies, prestigious appointments are made public through press releases and so on. The iconic academic award of the Nobel Prize is, for instance, associated both with the intricate procedures for determining the winners and with the ornate award ceremony (Woolgar 1980). Such public performances can be seen as providing the unequivocal sanction of sometimes prolonged and convoluted practices of assessment. It is precisely the stakes attached to such presumed public unequivocal sanctions that make the occurrences of mishaps interesting. The 2017 Oscar mishap piqued our curiosity precisely because it exemplified the public unmaking of a definite announcement and the public making of a new, equally definite, announcement.

Valuation practices have proliferated in recent decades and are now a pervasive feature of widespread activities and situations. Their public performances have similarly come to occupy most public spaces for announcing and solidifying their outcomes. Although various valuation practices are increasingly examined, not least within the remit of this journal, there is to our knowledge little attention given to those occasions when the public performance of a valuation is recognised as generating a mistaken outcome. Our intention with this research note is to initiate an exploration of the topic of public mishaps and mistakes in the public performance of evaluation. We will specifically examine two recent public mishaps in evaluation. First, the above mentioned announcement of “La La Land” as winner of Best Motion Picture at the Oscars award ceremony in 2017. Second, the announcement and subsequent retraction of a number of “Highly Cited Researcher” (HCR) distinctions by Thomson Reuters in November 2016. Our intent is to use this examination to highlight features of valuation practices which are normally taken for granted.

Our initial intuition is that many mechanisms of assessment tend to be well orchestrated; that is, many routines and networks for arriving at a conclusion are well established. After all, high stakes often attach to singling out what or who is valuable and worthy among many contending alternatives. Yet, apart from critically assessing these valuation practices, and contributing to debates about their deleterious effects, an additional task is to understand the nature of evaluation when things go wrong in public. Our exploration of public mishaps and their repair is aimed at furthering our understanding about valuation practices. Our interest in these two cases is directed towards what they might tell us about two interrelated key features of valuation practices. The first feature is how the actors involved attach

particular significance and importance to the evaluation: what for them are the matters at stake. The second feature concerns the staging and public performance of valuations, and the subsequent public repair of the mishap. These two features are interrelated not least in how different valuation practices might be folded together and by the accountability structures that support valuations. We use our examination of these features to sketch a more general scheme for analysing public performances of valuations and their mishaps.

**“This is not a joke, I’m afraid they read the wrong thing”**



**Figure 1** Faye Dunaway and Warren Beatty announcing the award for Best Picture, 26 February 2017 (subtitle added)

Presenters Faye Dunaway and Warren Beatty (Figure 1) are charged with the announcement of the award for Best Picture, the culmination of an evening of announcements of awards in different categories across the movie industry. Beatty opens the envelope and, after (what we retrospectively notice as) some hesitation (indexed with “You’re impossible!” from Dunaway), hands over the note and the envelope to Dunaway who announces the winner: “La La Land.” Amid substantial applause and much hugging and hand shaking, a large team of some twenty actors, producers, directors, technical contributors and so on then take to the stage, joining Beatty and Dunaway. While they move to the stage, the voice over on the TV coverage narrates that La La Land had the tied record in Oscar history for most Oscar nominations (14), and recounts the seven Oscars it had received—production design, cinematography, etc.—ending with the just announced award for Best Picture. From a position behind and above the scene, the TV

camera pans up and down the full length of the packed audience, who delightedly exclaim and applaud the awardees facing them at the front (Figure 2a). The Oscar is handed over and there then ensues a sequence of acceptance speeches by members of the team (Figure 2b).



**Figures 2a, 2b** The audience witnessing and applauding the awardees arriving on the stage (2a top). The subsequent thank you speech by *La La Land* producer Marc Platt (2b bottom). Platt is flanked by fellow producers Jordan Horowitz to the left and Fred Berger to the right.

From the opening of the envelope, some 2mins 30secs pass before the award is announced as a mistake. Our retrospective viewing of this period is a form of dramatic irony: because we now know what the actors do not, we can now notice things having gone wrong. For

example, we notice the gradual appearance on stage, in among the assembled La La Land throng, of “back stage” personnel: a man with a clipboard, another with headphones. The direction and speed of their presence and movements seem oddly orthogonal to those of the celebrant La La Landers: they do not face the audience, they are not laughing and smiling, they are not talking to one another. A sequence of thank you speeches gets underway. Yet word seems gradually to spread among those on stage that something is wrong. Until a producer of La La Land, Jordan Horowitz, clutching his (“his”) Oscar, steps up to the microphone and declares (at 2.43) “Wait. Guys. No. There’s a mistake. Moonlight. You guys won Best Picture ... this is not a joke.” Followed by Marc Platt, outside the frame, repeating “this is not a joke” followed by “I’m afraid they read the wrong thing.” Close reviewing of the video reveals that this is immediately preceded (at 2.41) by Horowitz's fellow producer Fred Berger, in mid-thank you speech, briefly saying into the microphone “We lost by the way but you know (huh huh)” (shrugs shoulders).

We can understand the drama of the revelation as a reflection of the extent of investment in the network which constitutes the evaluation. Elsewhere we have described the networks which constitute the persona of a celebrity such as Jimmy Savile, and how the degree of investment in these networks accounts for the extent of drama and consternation when the same persona/network is radically disrupted (Woolgar, forthcoming). In the current case we mean investment in both, on the one hand, the procedures for soliciting nominations for awards, assessment; and on the other, investment in the staging, resources and enactment of roles and identities for the announcement of the award. As we discuss below, accomplishing this distinction between the evaluation itself and its (mere) subsequent announcement is crucial to the repair mechanism which ensues. In articulating the “mistake” the announcement is enacted as a mere epiphenomenon to the machinery of evaluation.

Certainly, reactions to the revelation of the mistake were dramatic, perhaps also indicating the perception of the high stakes involved. The incident is described as “the most infamous moment in Academy Awards history.” The Academy Awards show producer Michael de Luca said “It was like the Hindenburg report. [A reference to the 1937 air ship disaster which stunned the nation.] I literally heard, ‘Oh my God! He got the wrong envelope!’ And then it was slow motion. You perceive things slowly as the adrenaline rises and the cortisol floods your system.”

A first key aspect of this episode is the interlinking of *repair* and *post mortem*. How to make good the mistake that was made, and whom/what to blame for the mishap?

As the event unfolds, and in its immediate aftermath, we see accountability for the mistake shift from Warren Beatty and Faye

Dunaway (the voice of Marc Platt at 2.53 saying “I’m afraid they read the wrong thing”), to Warren Beatty alone (at 3.52 Jimmy Kimmel, the host of the evening, says to Beatty “Warren, what did you do?!”). Subsequently blame shifts to the Academy management in general, to PricewaterhouseCoopers (PwC) (“the Academy’s accounting firm for 83 years”), and finally to one individual, Brian Cullinan, one of PwC’s managing partners. The latter’s “human error” was later cited as the reason for the mix-up, and he is vilified for his behaviour:

A Harley-riding Malibu resident and self-proclaimed Damon look-alike (he has proudly announced that on Facebook), Cullinan is being blamed for allowing himself to be distracted by the celebrities who surrounded him. He tweeted a photo of [Emma] Stone minutes before the mix-up despite reportedly being asked not to do so. [Emma Stone had just won Best Actress for her role in *La La Land*.]

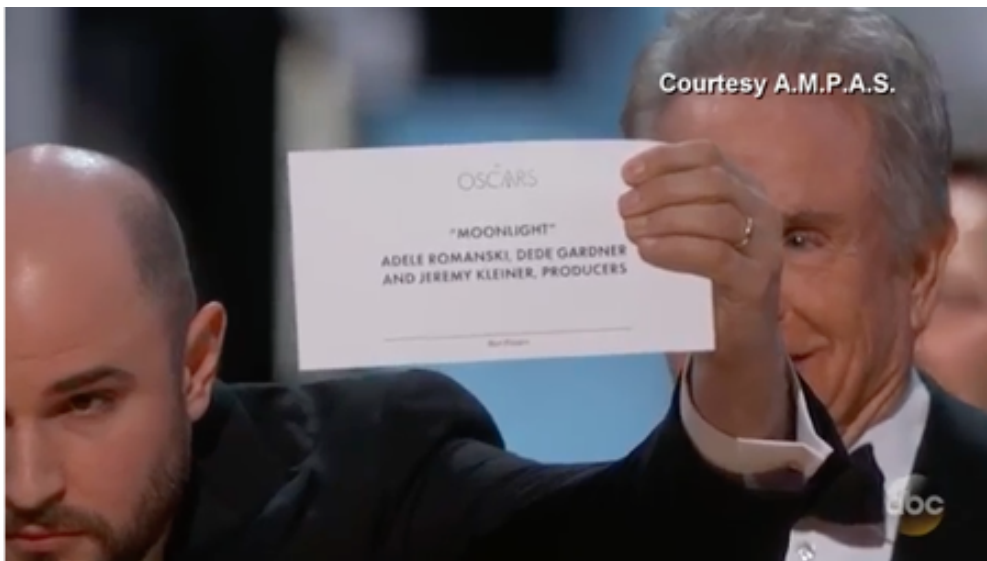
The stage is set for the articulation of “human error” at an early point in the proceedings. At 3.22 in the video clip the host Jimmy Kimmel comes to the front of the on-stage assembly—in the background one sees the cast of winners and (now revealed) losers exchanging places—and says “This is very unfortunate what happened. Personally I blame Steve Harvey for this.” The comment comes across as a jocular reference to a previous, notoriously high profile error when, at the culmination of the Miss Universe 2015 pageant, the host mistakenly announced the wrong winner of that title. Of course, the comment works more as a joke than a serious attempt to explain what is happening, as a reflection on the embarrassment, doubt and uncertainty which characterises the unfolding situation. Interestingly though, the joke is framed in terms of individual rather than, say, organisational failure. It can be understood as saying Steve Harvey messed up: an individual was to blame: human error is how we can understand what just happened here.

The importance of the repair work, as mentioned, is in distinguishing between the actual state of affairs (the correct evaluation) and its merely mistaken articulation. It is worked to substantiate the claim that although the machinery of evaluation misfired this time, it did so only in the final expression of its result. There is essentially nothing wrong with the machine: instead some kind of peripheral “human error” is at fault.

A second key aspect is in the *choreography* of revelation and repair of the mistake. We note that two casts of witnesses to the event are quite literally substituted one for the other. The entourage associated with *La La Land* gets to take back stage (and some of them seem to start to leave the stage) as they are replaced by the entourage associated with *Moonlight*. As mentioned already, the choreography involves the switch from smiling faces towards the camera and giving acceptance speeches, to the inclusion of back stage staff, to surprised exchanges between those on stage, to the denouement and declaration of a mistake.

A particular material contributor to the choreography of the mistake is the envelope and the card announcing the winner. As part of the repair sequence the material entity (the envelope and the card within) is made to move around between actors as part of doing attribution and reassignment of accountability. It is subsequently decided that Warren Beatty had been given the wrong card. This (retrospectively) explains the pauses and other interactions between Beatty and Dunaway leading up to the erroneous announcement. Beatty was expecting to see a card stating the winner of the Best Picture but instead pulls out card stating that Emma Stone was winner of Best Actress award for her role in *La La Land*. The interaction that was previously readable as Beatty either dithering, perhaps incompetent or playing for time for dramatic effect (Faye Dunaway at 0.16) is now readable as incomprehension and hesitation about what to say. He passes the card to Dunaway who reads out the title of the film she sees on the card: *La La Land*.

At 2.57 Jordan Horowitz repeats “This is not a joke” and says “*Moonlight* has won Best Picture.” Beside him Warren Beatty, holding another red envelope, opens it and pulls out the card within. It looks like Beatty is trying to get to the microphone to say something. If this is about “human error” Beatty needs to get into position to absolve himself of blame. But Horowitz takes the card from Beatty and says again: “*Moonlight*. Best Picture.” He holds the card up to the camera. The camera stays in close up on the card for some 7 seconds (see Figure 3). The audience can now see the “correct” award as evidenced by the writing on the card. At 4.12 Beatty gets his say. He repeats a version of the now revealed sequence of events, again holding up the (correct) card to audience and camera: made to work as incontrovertible evidence of the correct state of affairs.



**Figure 3** *La La Land* producer Jordan Horowitz presents the correct card. Warren Beatty, one of the two assigned presenters of the award, is directly behind Horowitz's hand holding the card.

The receipt of an Oscar is not merely the final end mark of evaluation. The evaluation itself has immense prospective value. The film industry puts considerable effort into using these evaluations for future marketing. Thus for example subsequent films are advertised as “by the Oscar winning Director of ...” or “featuring Academy Award nominee ... .” So the award has a permanence which entails future value for other yet to be evaluated activities and products.

The permanence and prospective value of the award can thus be understood in terms of its folding potential (Deleuze, 1993). The value of the Oscar is prospectively transposed from one context (the award ceremony) to many others for different purposes. Folding the evaluation brings together disparate elements in a consequential manner.

Recognition of the significance of the folding of the award is evident in participants’ public management of the misappropriation of prospective value. The (actual) losers’ reactions can be read as displays of graciousness in the face of just having the award snatched from them. At 3.34 Horowitz, holding the Oscar, says “I’m going to be really proud to hand this to my friends at *Moonlight*” Amid renewed applause from the audience Jimmy Kimmel replies “That’s nice of you, that’s very nice.” Goodwill is demonstrated. Unpleasantness is avoided. It is a “nice” gesture because we all appreciate the nature and extent of the folding opportunities which Horowitz is giving up. Subsequently Horowitz, now labelled as the “unlikely hero” of the event, stated:

I wanted to make sure that the right thing was done, because, you know, at that point it was not about me. It was about making sure that *Moonlight* got the recognition it really deserves.

So we see that the revelation and the subsequent repair of the mistake at the Academy Awards shows something of the structure in place which makes evaluation possible in the first place. To what extent can we take this as a typical choreography of evaluation? What is the nature of revelatory networks in evaluation? To what extent does this analysis apply to other instances of mistaken evaluation?

### **Performing a valuation and the choreography of repair**

The transition between the “winning” “*La La Land*” to the winning “*Moonlight*” tells us much about the repair processes involved in public displays of valuation. The whole episode takes place in a high stakes setting celebrating achievements in film and in front of an illustrious live audience, a huge television audience and massive social media interest in Twitter and Facebook. Central aspects of the (original) announcement include a document, two witnesses, a huge audience and the unequivocal announcement. This is followed by the



public appearance of recipients, to be displayed and to acknowledge their receipt of the reward. These are all central and easily recognised elements of the staging and public performance of a valuation.

What happens next are steps which we suggest look like a choreography of public valuation repair. Taking inspiration from Charis Cussins's (1996) notion of 'ontological choreography' we would take this *choreography of public valuation repair* as denoting the coordinated action of many diverse actors in the service of maintaining the integrity of the valuation practice in question.

The choreography of repair is instigated by a moment of commotion, uncertainty and lack of clarity as to what is actually going on. Actors, such as men with headsets appear, and the performances of thank-you speeches are gradually derailed. Then out of this moment of chaos, order resurfaces. This order highly resembles the first one prior to the commotion and involves a document (albeit new), witnesses, a huge audience, a new unequivocal announcement. This is followed by the appearance of the "real" recipients. Simultaneously, the previous recipients take on a new role as witnessing the (new) unequivocal announcement and certifying its authenticity. It is furthermore noteworthy that the live audience, having actively confirmed La La Land as the winner with clapping and cheers, then shift and just as intensively confirm Moonlight as the winner. Why did they do that? A fictional interrogation of an imagined audience could provide some clues.

Steve Woolgar [SW]: How come you applauded and cheered the announcement of Moonlight as the winner in much the same way as you had done just before when La La Land had been announced as the winner?

The audience [TA]: It is all really simple: Moonlight was the winner! You have to acknowledge the winner when it is announced.

C-F Helgesson [CF]: Yes, but what about your applause and cheering for La La Land just minutes before?

TA: Well, that was when we *thought* La La Land was the winner. It is both appropriate and imperative that we confirm and acknowledge a winner when it is announced. At that time, none of us knew about the mistake. We heard later that it was something to do with misplaced envelopes and an auditor?

SW: What if it had turned out otherwise? What if the announcement of Moonlight as winner was the result of a second mistake? Would you have clapped and cheered yet again for the then announced winner?

TA: Well that's just silly! Moonlight *was* the winner, so of course we cheer and confirm *the actual winner*. It is stupid to speculate that this extraordinary eventuality might be just the first of its kind.

CF: But how can you be so sure that this was just a one-off? Are you saying that when a mistake has been identified and corrected, the show just needs to go on? That there is no anxiety about whether or not any subsequent announcement is flawed?

TA: Well we don't know. That just sounds to us like fancy reasoning. As an audience we have to cheer and applaud the actual winner. That is what we do. This is not only about celebrating the winner, but about celebrating the very idea of the award. And, indeed, about celebrating the idea of audience. If you undermine the whole idea of the certainty of the award, what does that do to us as an audience? Our identity as audience depends on the award. After all, it was just a mistake!

A crucial part of the choreography of repair is the identification of the cause of the mistake. This is moreover done in a way that enacts a clear distinction between the evaluation machinery and the staging of the announcement of its outcome. Several attributions of “blame” are tested, but they all honour this distinction and attribute accountability for the mistake in the announcement. This works as an attempt, in the immediate setting, to preserve the integrity of the valuation and to reassert the significance of the assessment and the worthiness of the “true” recipients.

Much more repair work associated with the mistaken award continued well beyond the stage of the Oscar ceremony. A series of investigations, recriminations, public comment, questions of blame and dismissal followed the ceremony. These are beyond the scope of the present discussion: our purpose here is to highlight the choreography involved in attempts at repair specific to the particular moment and immediate setting of the announcement.

### **“This was sent in error.”—The Highly Cited Researcher Award 2016**

Each year Clarivate Analytics announces the publication of their annual list of HCRs. The list “is a citation analysis identifying scientists—as determined by their fellow researchers—whose research has had significant global impact within their respective fields of study.” In 2016 the list contained more than 3,000 researchers in 21 fields in the sciences and social sciences based on papers published during an 11-year period up until December 2014. As is usual, the announcement of the list includes a triumphal declaration of the prestige of the award by an authoritative figure in the organisation:

It is precisely this type of peer recognition, in the form of citations given and rooted in the collective and objective opinions of scientific field experts that makes achieving highly cited researcher status meaningful,” said Jessica Turner, global head of government and academia at Clarivate Analytics. “We are proud that our list of Highly Cited Researchers has earned global respect among the

academic and scientific community and has the potential to present new opportunities for career advancement, recruitment and institutional enrolment.

Universities employing researchers on the list had apparently been informed in advance, and issued press releases on the same day. For example, the National University of Singapore noted in their press release on 16 November that they had 11 scientists and engineers on the list and that it was the third year in a row in which NUS had the highest number of highly cited employees among all research institutes in Singapore.

On Friday afternoon of 18 November, one of us (Helgesson) was delighted to be informed by email from Thomson Reuters/Clarivate that he had been awarded the distinction of HCR. Helgesson was selected for this illustrious honour “because your work has been identified as being among the most valuable and significant in the field.” The email further stated that very few earn this distinction and that the process of identifying him as a recipient had involved something called “Essential Science Indicators” and a ranking of the top 1 per cent most cited works for the given subject field.

The award included a downloadable badge which, it was suggested, could be displayed on his personal website, LinkedIn profile and email signature. The email provided a link for requesting a physical personalised letter and certificate for display. Finally, the email suggested that he should join the conversation on social media about this award using the hash tag #HighlyCited. The email ended on a warming personal note from Vin Caraher, the CEO of Clarivate Analytics.

I applaud your contributions to the advancement of scientific discovery and innovation and wish you continued success.

What can be awarded, can as easily be taken away. Three hours and 45 minutes later Helgesson received a second mail from Thomson Reuters. This time it was not addressed to “Helgesson” personally, but to “Dear Researcher” and signed by the more anonymous “Clarivate Analytics.” The gist of this second email was that the previous mail had been sent in error. Here is the full email:

Dear Researcher,

We recently sent you an email about being named a Highly Cited Researcher. This was sent in error. Please accept our sincere apologies.

We’ve identified the error in our system that caused this and were able to resolve it quickly, ensuring it won't be repeated.

Highly Cited Researchers derive from papers that are defined as those in the top 1% by citations for their field and publication year in the Web of Science. As leaders in the field of bibliometrics we appreciate the effort required to reach this achievement and celebrate those who have done so this year.

Sincerely,

Clarivate Analytics

A quick search online indicated that he was not alone in having both received and lost this award within a few hours. The suggested hash tag #highlycited was repurposed for discussing the retracted awards. Helgesson was among several who posted comments and offered modified badges to signal the mishap (see Figures 4 and 5).

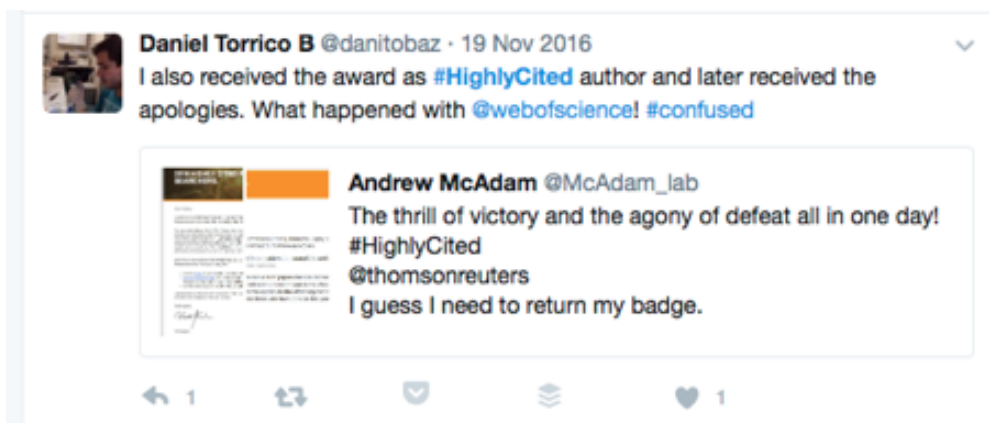


Figure 4 Excerpt from Twitter 19 November, the day after the mishap had been communicated



Figure 5 The original Highly Cited Award badge offered for download (left) and badges modified by Çetin Kocafe (@cetinkocafe, centre) and Helgesson (@cfhelgesson, right).

The website Retraction Watch published a piece on the HCR mishap on the following Monday, the 21 November. The commentaries on this post were charged with emotion, as were several of the tweets following the mishap. At least one contributor threatened to sue Thomson Reuters. Some information communicated by Clarivate was also included in the Retraction Watch post where the company further discussed the nature of the mistake:

The error occurred internally with our email system. It was corrected quickly and we emailed apologies to those who received the incorrect email.

We take HCRs very seriously and since correcting this error, we are confident it won't be repeated.

Note here how the source of the mishap is located in the email system. The error is thus positioned as rather remote from the system and procedures used for actually identifying HCRs. These procedures are outlined on a page dedicated to describing the procedure:

...A ranking of author names in each ESI category by number of Highly Cited Papers produced during 2004-2014 determined the identification and selection of our new list of highly cited researchers. We used algorithmic analysis to help distinguish between individuals with the same name or name form (surname and initials). In instances where any ambiguity remained, manual inspection was needed. This entailed searching for papers by author surname and one or multiple initials, ordering them chronologically, visually inspecting each (noting journal of publication, research topic or theme, institutional addresses, co-authorships, and other attributes), and deciding which ones could be attributed to a specific individual. As noted in the FAQ [frequently asked questions] section, we examined original papers, if necessary, as well as the websites of researchers themselves and their curricula vitae. This was often required if a researcher changed institutional affiliations several times during the period surveyed ... (Excerpt of entry under Methodology).

### **Another moment of commotion and a choreography of repair**

HCR recognition is not as front and centre in academic distinctions as is the Academy Awards in the motion picture industry. There is no glamorous televised celebration for HCR. Yet, it is directly associated with a dominant metric for assessing academic contributions, the citation, and the dominant enterprise making a business out of manufacturing such metrics. The above mishap did thus take place in a setting with significant stakes attached, where the distinction is not only linked to the status of scholars but to the ranking of universities and the myriad of ways that these can be translated into future funds. In short, HCR is intricately entwined with a number of consequential evaluation practices within academia.

The first revelation of the assessment followed a script with several resemblances of the Oscar's announcement. We have the unequivocal announcement, the documents (press release and personalised letters) and an audience. As regards the audience, it is worth noting how the recipients were encouraged to conjure a wider audience to the whole affair with the use of badges, printed diploma, the social media hash tag and so on. Recipients are in effect encouraged to initiate their own folding of value. The audience confirming the distinction is in one manner to be assembled after the fact to confirm and witness that the distinction indeed has been awarded. Several tweets and university press releases indicate that this is also what happened.

Then there was the mishap. We do not have any insight into the instigation of the moment of commotion, but something must have warranted Clarivate to retract a presumably large number of recently minted HCRs via a second email. The cause of the mishap is quickly presented as being caused by an error in the email system. By implication, this is quite remote from the systems gathering and the processing of citation data that lay the foundation for identifying HCR. The erroneously awarded researchers transmute into a part of the audience. Aside of their complaints and ironic remarks, they also take part in being and widening the audience for the HCR distinction. At the same time “real” recipients continue to announce their distinction and thank their colleagues. Again, the assemblage was rather smoothly reordered to repair the mishap and conserve the integrity of the valuation practice.

Steve Woolgar [SW]: So, CF, how did you feel after that?

C-F Helgesson [CF]: It was disappointing, to have the award and then have it taken away again.

SW: Disappointing?

CF: Well, actually, pretty insulting. Really annoying.

SW: But wait. Did you really believe you had won a Highly Cited Researcher Award?

CF: What?

SW: I mean did you *really believe* that you had won one?

CF: Well, yes.

SW: Really?

CF: Yes. What are you suggesting?

SW: No no nothing. It's just that ... Is it not a key principle of science and technology studies (STS) that we maintain scepticism about the phenomenon under study. In this case, academic evaluation?

CF: Well yes but ...

SW: So shouldn't our first reaction be to doubt the authenticity of the award?

CF: But ...

SW: Should we not be trying to adhere to the principles of symmetry and impartiality?

CF: Yes, but it's really difficult to maintain symmetry when it happens to you. I mean, the whole thing was beautifully packaged.

SW: How so?

CF: Well it was all very convincing. An impressively official looking letter from Thomson Reuters, personally signed, the honorary badge. References to the selection process, all the other winners, press releases ...

SW: Ahh. You're saying you yourself got caught up in the valuation spectacle!

CF: Of course!

SW: But I saw that you later posted the honorary badge on your office door?

CF: Yes. Both the badge and its retraction are displayed on my office door [see Figure 5].

SW: Why did you that?

CF: I was using irony as a form of resistance.

SW: So the choreography goes on?!

CF: Yes, the door display performs the identities of its readers.

SW: The door display tells that we STS-ers are not so easily taken in by this kind of mistake!

CF: So, Steve how do we conclude this research note?

## **Conclusion**

Several similarities between the HCR and Oscar mishaps suggest the possibility of recurrent patterns in the choreography of repair. These include the retraction of a prior unequivocal statement, the making of a new (equally) unequivocal statement, the consequential reordering of

roles, and the identification of the cause of the mistake. All these parts of the choreography further align to attempt to isolate the mishap and try to sustain the integrity of the valuation at hand. The choreography does not settle the case: many different kinds of repair work continue beyond the immediate setting of the Oscar ceremony.

In both cases, the drama of the ceremony entails the enactment of key identities and of the social relations between them (the adjudicating organisation, the announcers, the recipients, the material enactments of the award). These work together to establish the significance and prestige of the award, and thence the importance of celebrating achievement. The recognition of a mistake then engenders a process of repair. (Evident from the Oscar materials, but not from the information available to us from the HCR episode, is a brief period when participants consider ‘soldiering on’ rather than revealing the mistake at all). The repair process involves, crucially, articulating a distinction between the evaluation machinery and its announcement. This distinction enables casting the announcement as a mere epiphenomenon to the evaluation machinery. This in turn enables accountability for the mistake to be attributed to “human error” in the announcement of the award while the integrity of the evaluation machinery is presented as unaffected. The overall effect is that something went wrong, but everything is fine.

At the same time the whole process of the revelation of the mistake and its subsequent repair can be seen as an attempt to reinforce and preserve what is at stake for the actors involved. In particular we note how in both cases the prospective value of the award, its folding into situations and contexts beyond the immediate announcement, is reasserted by participants. Attempts to sustain the integrity of the evaluation machinery are also attempts to reconfirm the value and significance of the award. Yet the repair is not complete. The event itself leaves traces which are folded into the organisation of future evaluation and award, and into the conduct of individual participants on subsequent occasions.

We see then that not only is the public performance of valuation ritualised, but so too is the repair of mistakes. By focusing in detail on the revelation and repair of mistaken evaluation we can see that the integrity of evaluation is the upshot of a complex social choreography. This involves the enactment of various identities and social relations, including the adjudication process, the adjudicators, “true” and “false” recipients of the award, non-recipients, the audience and so on. Despite the potential for considerable upset and complaint, a successful choreography of repair diminishes the voices of prospective malcontents and solidifies the significance and integrity of the valuation practice.

Our brief examination here of two visible valuation mishaps is suggestive of the merits of further close examination of mistakes in



evaluation. This entails both the processes of their possible disclosure and the subsequent sequence of events. There is much more to explore in the dynamics of public choreographies of repair. In addition, the theme of mishaps further inspires thinking about and examining instances where a potential valuation mishap is repaired by letting it all slide. What for a brief moment could have become the wrongly awarded prize, the wrong candidate being hired, etc, in fact becomes the right outcome. How do such practices and choreographies of repair look? What are the dynamics that flip it either way, and what more could the examination of such instances tell us about the dynamics of valuation as a social practice?

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