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Editorial note

Valuation and Calculation at the Margins

Andrea Mennicken and Ebba Sjögren

Valuation studies is an emerging field with visible momentum. This is evidenced not only by the existence of this journal. In 2015 alone, several edited volumes and special issues were published on the explicit theme of examining valuations and how things are made valuable (Berthoin Antal et al. 2015; Cefai et al. 2015; Dussauge et al. 2015; Kornberger et al. 2015).

One common feature of the histories of valuation studies which has been mentioned in these and other contributions is that valuation emerges as a long-standing core concern for a diverse array of scholars, as varying as it is delimited: by time, geography, and/or academic discipline.

A related commonality concerns the acknowledgement of multidisciplinarity. As a journal, Valuation Studies has taken a strong position on the multidisciplinary foundations of its authorship and audience. The journal has created a platform for exchange and debate among sociologists, anthropologists, accounting scholars, science and technology studies (STS) scholars, as well as students of organizations and information systems.

Calculative infrastructures, which account for what is valuable, are important sites for probing into processes of valuation. Valuation Studies shares this interest in calculation with social studies of accounting, a neighboring field to which the authors of this editorial also belong. Accounting, Peter Miller (1998) has argued, is most

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© 2015 Andrea Mennicken and Ebba Sjögren LiU Electronic Press, DOI 10.3384/VS.2001-5592.15311 http://valuationstudies.liu.se interesting at its margins. It is at the margins that accounting as a body of legitimated practices is formed and re-formed by the adding of devices and ideas of various kinds (ibid.: 174). This also applies to valuation, as the contributions in this issue show. To attend to the margins of accounting, calculation, and valuation is to emphasize that there are different margins at different points in time, and in different places.

Accounting scholars have been concerned with the study of calculative practices at the margins for more than 40 years. The social studies of accounting emerged in the 1970s as a behavioral, processoriented critique of taken-for-granted and instrumental views of accounting as a tool to assess organizational performance and make decisions about the allocation of both financial and non-financial resources (see Miller and Power 2013 for overviews; but see also Hopwood 1976, 1980; Mennicken et al. 2008). In the 1980s this scholarly project changed. Inspired to a significant extent by Foucault's writings but also by STS, Anthony Hopwood, who in 1976 had founded the now internationally reputed journal Accounting, Organizations and Society, and colleagues outlined a research program that placed the study of the constituting roles that accounting plays in economic, social, and political life at its heart (see also Hopwood and Miller 1994 for an overview).

Since then one long-standing analytical interest by Social studies in accounting has been a question of representation and production of value, i.e. the role of accounting in rendering particular versions of reality robust, pervasive, and persistent (see also Power 1994). Another preoccupation has been the role of accounting in shaping the cognition and behavior of various actors by making them visible and accountable to others and themselves in a particular mode and manner (Quattrone 2004; Ezzamel et al. 2008). A related theme has been the investigation of how accounting is involved in engineering action at a distance, through the socio-material arrangement of controlling centers and attendant peripheries (Robson 1992; Quattrone and Hopper 2005)

Social studies of accounting and valuation studies share a processand practice-oriented view and an interest in "the how" of calculative arrangements. Both are interested in the "tracking of numbers" (and valuations) across markets, organizations, and other domains (Vollmer et al. 2009), and they share a concern with the conditions and consequences of calculative practice.

Various contributions to this journal have shown that following accounting can be a productive methodological tool to unpick what is at stake in valuation. Accounting is a means of tracing how valuations unfold over time. In this issue, Emily Barman, for example, examines the genealogy of two accounting devices to show that a plurality of values can be accounted for through the emergence of parallel

infrastructures for assessing investment prospects' social and environmental performance alongside financial performance.

Accounting valorizes economic constructions of actors and things (Vatin 2013). In so doing, connections have to be formed between a multiplicity of disparate components and ambitions (see also Miller 1998). Accounting scholars have highlighted the plurality of valuations performed in the calculation of economic values—take for example the use of historical cost versus fair value in the valuation of assets, or different methods for pricing capital and time in capital budgeting (Burchell et al. 1985; Mennicken and Power 2015). Accounting is 'plastic' due to both methodological variability and the different domains of worth that achieve registration within accounting concepts and techniques (Mennicken and Power 2015). As Hopwood puts it, "accounting has no essence". This plasticity should not be read as weakness. It is part and parcel of the rise and spread of accounting (see for example the rise of value-added accounting or the spread of corporate social responsibility accounts). At the same time, however, this plasticity can also contribute to accounting's very own destabilization. This becomes particularly visible in times of crisis when accounting's established core practices of measurement and valuation are most contested, and alternative representations and valuations proliferate (ibid.). For example, the recent financial crisis problematized fair value accounting, i.e. the use of market or marketlike prices for valuing firms' financial assets.

The plasticity of accounting is similar to the plasticity of valuation. Like accounting, valuation practices also may eventuate in single figures for further consumption and processing, sustained by an apparatus whose components are malleable and contestable. As Carruthers and Kim (2011: 253) argue, "the plasticity of valuation is [...] apparent with every accounting restatement, but such episodes do not simply reflect valuation-gone-wrong. Rather, they reveal how much value is a contested and provisional judgment whose complexity lies buried beneath a surface of numbers and quantification." It is for us—researchers of accounting and valuation practice—to probe beneath that surface and to get to the heart of, to borrow from Goffman (1969), where the (valuation) action is.

Studying valuation in crisis can serve as one avenue of research, although it is not the only one. Teun Zuiderent-Jerak and Stans van Egmond highlight in this issue the provisional character of valuation in their longitudinal analysis of the changing operation of an expertengineered calculative device in the market for healthcare insurance in the Netherlands. While 'successfully' introduced to reconcile competition between insurers and solidarity among the insured, the authors problematize the capacity of both the device and its increasingly marginalized expert operators to robustly balance these values over time.

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Unraveling the multiplicity of accounting makes us not only aware of the multiple forms of calculability engrained in valuation and the importance of considering the role of friction and fragility in valuation (see e.g. Mouritsen et al. 2009; Stark 2009). It also brings to light the fictional character of valuation (Giraudeau 2012; Puyou et al. 2012; Doganova 2013). Much valuation (and accounting) relies on projections, estimates, and more or less systematically organized guesswork, which are invested with aspiration and hope (see also Barman's article in this issue). In our view, more work is still needed to unfold the fictionality of valuation, including the "ideas, marks and things" (Hacking 1992) employed to constrain such fictionality or to hold it stable. More work is also needed to get to grips with the temporality of valuation and the challenges it poses. More could also be done about developing our understanding of the relationship between calculation, emotion, affect, and valuation (take for example the role of fear) (see Guénin-Paracini et al. 2014 for an analysis of fear in audit practice).

A good starting point for tackling such questions lies in studying accounting and valuation at their margins, when they are put on trial (Muniesa and Linhardt 2011). This is where valuation is undone and redone. The contributions by Barman, and Zuiderent-Jerak and van Egmond in this issue illustrate how it is at the margins of valuation that existing practices are problematized and new ideas and instruments are brought into play.

It is also at the margins where power and politics become visible. Here, we can scrutinize how processes of accounting and valuation come to be bound up with questions of inclusion and exclusion, matters of appropriateness, and hierarchies of credibility (Espeland 1998; Fourcade 2011; Samiolo 2012).

And, finally, it is at the margins that we can study the limits of accounting and valuation. As argued in the contribution by Zuiderent-Jerak and van Egmond, it is problematic to assume the persistent influence of calculative devices and to presume the success of endeavors to engineer particular forms of financialized agency (see also Bay 2011). Here we are reminded of Callon and Law's (2005) conversation about two circumstances which can contribute to the realization of non-calculation. The first, denoted proliferation, undermines the bounding of a calculable space and object. Alternatively, non-calculation can be achieved through rarefaction, which undermines the relating of an object to any other. Valuation studies and social studies of accounting have a common challenge in probing where accounts and values proliferate or singularize to the point that both valorization and evaluation (Vatin 2013) break down.

We hope that apparent convergence around valuation studies as a topic of research does not undermine the desire to attend to the margins of accounting and valuation practice.

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Of Principle and Principal: Value Plurality in the Market of Impact Investing

Emily Barman

Abstract

Impact investing—investment with the intentional expectation of social or environmental impact alongside financial return—constitutes one of a growing array of "concerned markets" where economic exchange is employed as a means to pursue financial and social or environmental value. Drawing from the pragmatist turn in valuation studies, this article attends to the valuation work that took place in the formation of this new market, examining how market proponents as evaluators recognized, defined, and negotiated the presence of value complexity in impact investing. I frame the market of impact investing as a case of market design complete with experiments, one in which advocates produced a valuation infrastructure so as to address investors' difficulty in ascertaining the social and environmental value—as a distinct regime of value from financial value—of an investment. These experimenters extended judgment devices from mainstream finance to construct calculative tools in this setting that permitted the social or environmental value of investments to be brought into being and to be made calculable for investors without being assigned a financial value. The study contributes to literature that theorizes the conditions underlying evaluators' mediation of the multiple registers of value at work in the making of markets.

Key words: economic sociology; valuation; value plurality; intermediaries; concerned markets; impact investing

Impact investing—financial investment in companies with business models that produce financial value and generate social and environmental value—constitutes one of a proliferating assortment of markets intended to address social inequities and environmental challenges. These new "concerned" (Geiger et al. 2014) or "civilizing" markets (Callon 2009), include ethical consumption (O'Rourke 2005),

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© 2015 Emily Barman LiU Electronic Press, DOI 10.3384/VS.2001-5592.15319 http://valuationstudies.liu.se clean technology (Doganova and Karnøe 2015), and carbon trading (MacKenzie 2009). Drawing from the pragmatist turn in valuation studies (Dewey 1939; Muniesa 2012), this article attends to the valuation work that took place in the early and formative history of this new market. If financial valuation is about "actively and practically considering value precisely for the purpose of business," (McFall 2014, 155), what happens when new regimes of value, based on social and environmental benefit, are central to the envisioning of a new financial market alongside the traditional pursuit of economic value?

The pragmatist approach to value provides a particular framework for the empirical investigation of this question. To begin, it argues that the question of value in markets does not result from an aggregation of members' exogenous and fixed preferences. Instead, value is understood as a social construction. By this assertion, this scholarship does not assume that value results from actors' subjective preferences, as shaped by collective norms and networks. Value instead is generated out of the valuation practices, conventions, and devices present in the situation of study. This emerging literature on valuation focuses on the socio-technical arrangements present in a setting that qualify goods, create calculative agents, and facilitate valuation (Callon 1998; Muniesa et al. 2007; Stark 2011; Lamont 2012; Helgesson and Muniesa 2013). Recent studies have extended the pragmatist approach beyond the study of economic value, by examining the plurality of values present in markets (Helgesson and Kjellberg 2013), often with a focus on new concerned markets where economic exchange is envisioned as a means to achieve a specific social, political, or environmental goal (Callon 2009; Geiger et al. 2014; Antal et al. 2015).

Drawing on an in-depth qualitative case study, I investigate how the presence of multiple regimes of value, including economic, social, and environmental value, was recognized, defined, and negotiated in the early years of the market of impact investing. Impact investing is a relatively new type of finance market, first emerging in 2007, and is characterized by investors providing capital to companies and funds with the intention to generate "social and environmental impact alongside financial return" (GIIN 2015). Heralded by powerful proponents as superior to the efforts of civil society or the state, impact investing consists of actors' investment of financial capital in companies located in developed and developing countries that are "double bottom line" in nature, with the intentional expectation of social or environmental impact through firms' business models, including the generation of entrepreneurial and employment opportunities, the provision of quality employment, and the sale of socially beneficial goods and services to underserved populations, alongside the production of economic return to investors (Bugg-Levine and Emerson 2011).

In order to grow this new market, proponents, in the role of evaluators, constructed a number of calculative tools, including a reporting standard and a rating system for firms, through which the social or environmental value of firms was to be assessed, as juxtaposed to and distinct from the calculative tools that assigned their financial value. The construction of this socio-technical arrangement can be viewed as a case of market design replete with experiments (Muniesa and Callon 2007; Callon 2009), as shaped by the prioritization of investors as users of these market devices, and by the transposition of the calculative tools of finance to this new setting. Market proponents sought to produce a valuation infrastructure to respond to investors' expressed uncertainty of the social or environmental impact—as a distinct regime of value—of impact investing. These new market devices allowed the social and environmental value of investments not only to be made calculable for market members but also to be brought into being as a source of value in this market (Callon and Muniesa 2005; Callon 2008; Muniesa 2012). In other words, the success of proponents' efforts to frame and structure impact investing as a financial market was contingent upon the distinct economization and non-economization of investors' social and environmental value.

The study of valuation work in the market of impact investment matters for several reasons. In its empirical attention to the construction of the setting's calculative tools, the essay contributes to efforts in valuation studies to theorize the conditions and configuration of valuation in markets as characterized by manifold and plural modes of value beyond economic value, including social, cultural, and political value (Helgesson and Muniesa 2013; Trompette 2013). The case also provides insights into the question of valuation in an expanding assortment of concerned markets where value complexity is overt in that economic exchange is viewed as a means to achieve both economic and non-economic sources of value (Callon 2009; Geiger et al. 2014; Antal et al. 2015). The study of valuation in this new market also matters for more practical reasons. The valuation infrastructure in impact investing likely has "performative" effects (MacKenzie and Millo 2003); it structures investors' evaluation of some investments as "good" choices, thus shaping these actors' decision to direct dollars to some companies rather than others, with consequences for why some social and environmental challenges get recognized as "worthy" while others get overlooked.

In the following, I begin with an overview of the pragmatist approach to the study of value and valuation. I then provide an overview of the case of the market of impact investing, before presenting my data and method of analysis. The next section, The Pragmatist Study of Value, delineates the valuation work of market proponents in constructing the market of impact investing, including

the creation of calculative tools that juxtaposed financial value against social and environmental value. Finally, the article concludes with a summary of its key empirical findings as well as the delineation of its theoretical implications for related literature.

The Pragmatist Study of Value

Value and Valuation Work

It is widely acknowledged that the study of value in the social sciences has taken a pragmatist turn. It has rejected a long-standing understanding of the concept of value as a quality of worth that is either inherently possessed by an entity (Marx 2011) or that is imbued to an object based on actors' moral beliefs (Stark 2011; Helgesson and Muniesa 2013; Vatin 2013). Instead, the question of what counts is approached by a concern for how value in a setting becomes produced and so actualized by particular socio-material arrangements (Dewey 1939; Muniesa 2012). How this valuation work entails the negotiation, construction, and objectification of value then becomes the object of empirical study (Velthius 2005; Healy 2006; Styhre 2013; Strandvad 2014).

This pragmatist approach to value emerged from the study of markets, where the assignment of economic value to commodities is not assumed to automatically result from the intersection of supply and demand, as posited by neoclassical economics (White 1981; Callon and Muniesa 2005; Beckert and Aspers 2011). Instead, attention is given to the role of a market's constituent mechanisms, devices, and rules in the assignment of economic value to goods. This market infrastructure facilitates the act of valuation, by assigning specific qualities to goods, facilitating commensuration, and allowing for the valuation of commodities (Callon 1998; Callon et al. 2002; Espeland and Sauder 2007; Muniesa et al. 2007).

If markets exist when economic exchange between actors is made possible, then a pragmatist approach to markets investigates the conditions—cultural, relational, material, and otherwise—that allow for such felicitous exchange to take place (Granovetter 1985; DiMaggio 1994; Garcia-Parpet 2007). Particular attention in valuation studies is given to the work of market devices in this endeavor—"the material and discursive assemblages that intervene in the construction of markets" (Muniesa et al. 2007, 2). Market devices are critical to the valuation of commodities in the market. Drawing from the premise that economic exchange is only viable where there is an understanding on the qualities of goods, these calculative tools matter because they reflect, solidify, and perform a particular criterion of value for market participants (Callon 1998; Callon and Muniesa 2005). They also facilitate actors' determination of the value of goods by dispelling the challenge of uncertainty. Judgment devices, such as rankings, critics'

judgments, and labels, perform valuation for use by market actors (Karpik 2010). Similarly, as Yenkey (2011) shows, the construction of a stock market in Kenya was contingent upon the establishment of calculative tools that could demonstrate the value of investments to potential participants.

But how do such socio-technical arrangements arise? Rather than view the "architecture of markets" (Fligstein 2001) as arising from an aggregation of individual members' exogenous and set preferences, the study of valuation has highlighted the role of actors in setting up the constituent components of the infrastructure of markets in ways that bring value into being by making valuation possible via calculative tools and calculative actors (Beunza and Garud 2007; Beckert and Aspers 2011; Vargha 2011). The determination of value in the nascent financial industry, for example, was beset by the indeterminacy of value but eventually, as the result of contestations and negotiations between members of the field, came to coalesce around a particular criterion of quality and set of calculative devices (De Goede 2005). Similarly, Preda (2006) delineates how a particular market device, the financial chart, came to be diffused and widely employed.

Value Plurality and Concerned Markets

An expanding body of literature has moved beyond the valuation work involved in the question of economic value to investigate how value plurality—the "concurrent co-existence of different valuations" (Helgesson and Muniesa 2013, 6)—is negotiated in markets. Here, value (in the economic sense) and values (in the moral sense) are not viewed as being located in "hostile worlds" (Zelizer 2005). Instead, each and every market is understood to incorporate multiple orders of worth, including economic, social, political, and cultural value (Boltanski and Thévenot 2006; Lamont 2012; Helgesson and Kjellberg 2013). For example, the determination of a good's economic value tends to result from the negotiation and translation of alternative orders of worth into an economic logic, as structured by broader political and institutional arrangements (Beckert and Aspers 2011; Styhre 2013; Geiger et al. 2014). Fourcade (2011) illustrates this analytical point in her comparative study of the assignment of a dollar value to the environmental degradation caused by oil spills in the United States and France. And markets contain value plurality in that economic value defines and contains prescriptions for the proper organization of social life inside and outside of the market (Smith 2007; Cooper et al. 2014). Ortiz (2013), for example, shows how professionals in the financial industry drew from and enacted moral and political beliefs in their decisions to extend access to credit to some clients but not others.

Value plurality is therefore widespread in all markets but is particularly apparent in the ongoing proliferation of new, hot markets, sometimes called "concerned" markets (Geiger et al. 2014) or "civilizing" markets (Callon 2009), that intentionally employ market exchange as a means to obtain both a financial and a non-financial end, which may be political, social, or environmental in nature. Examples include ethical consumption (O'Rourke 2005), carbon trading (MacKenzie 2009), and clean technology (Doganova and Karnøe 2015). As in the cases of the Fair Trade Movement or socially responsible investing (SRI), some of these markets are instances of what King and Pearce (2010) have described as the switch of social movements from their traditional focus on the state to contentiousness aimed at economic actors in the private sector. Elsewhere, the neoliberal emphasis on government privatization has led to powerful actors promoting market-based solutions to problems that had previously been deemed the responsibility of the government or civil society (Shamir 2008), including "Social Impact Bonds" (Cooper et al. 2014) and "Sustainable Investing" (Barman forthcoming).

No matter what their origin, these types of concerned markets are of theoretical interest for valuation studies because they explicitly highlight the centrality of value plurality in a market setting. How then does value/s get recognized, defined, and negotiated in concerned markets? What kinds of valuation work take place in a new market characterized by the intentional inclusion of value dissonance in its envisioning by proponents (Stark 2011; Antal et al. 2015)? One presumption in the valuation literature is a compromise—the consolidation of competing qualities around a single order of worth (Callon 1998; Boltanski and Thévenot 2006). More precisely, it may be expected that economization occurs in these types of markets (Çaliskan and Callon 2010): economic value becomes the dominant regime of value, given the ease by which a dollar value can be assigned even to "peculiar" goods such as natural resources, carbon emissions, or heritage sites (MacKenzie 2009; Fourcade 2011). In a financialized society (Krippner 2005; Muniesa 2012), prices represent the "best representation of the value of exchanged goods" (Ortiz 2013, 65).

Yet, this theoretical assumption is based on the study of markets where the economization of goods has already occurred and so leaves open the possibility of continued value plurality in other markets. A more recent approach has been to investigate instances of the ongoing presence of multiple regimes of value in a market setting (Beunza and Stark 2005; Stark 2011; Helgesson and Kjellberg 2013). In this line of action, the presence of competing qualities of goods in terms of valuation practices is approached as an empirical question, one open to different arrangements, negotiations, and relationships. Here, scholars have examined the "entanglement of apparently distinct or even incomparable value systems" (Moor and Lury 2011, 440), including the intertwining of economic and political value in the French funeral industry (Trompette 2013), the construction of a clean

technology market in agriculture that reconciled environmental and economic value (Doganova and Karnøe 2015), and the intersection of monetary gain and sacred concerns in the construction of the life insurance industry in the United States (Zelizer 1983). Other work has investigated the conditions and configuration of calculative tools that valorize and so produce the coexistence of multiple regimes of value. These include the new accounting methodologies that gauge firms' social and environmental performance, including triple bottom line (TBL) and SRI methodologies (Power 2007; Hall et al. 2015).

Methodology of the Study

The Case of Impact Investing

The market of impact investing provides a suitable case for the investigation of these questions and debates over the presence of value plurality, as particularly evident in concerned markets.1 The employment of economic exchange as a means to financial and nonfinancial ends in the envisioning of impact investing allows for the study of how value plurality was understood and enacted by members of this market in and through the construction of a valuation infrastructure, including a reporting standard and a rating system. Impact investing is a relatively new type of finance market, first emerging in 2007, which is characterized by investors providing capital to companies and funds with the intention of generating social and environmental impact alongside financial return, ranging from principal to above market, in companies located in developed and developing countries that are "double bottom line" in nature. These locally owned and operated firms produce financial value for investors and generate social and environmental value through their business model, such as the production of entrepreneurship opportunities or financial services, the provision of quality employment, and/or through their sale of socially beneficial goods and services, such as financial services, education, healthcare, clean technology, or affordable housing, to underserved populations (J.P. Morgan 2010; Bugg-Levine and Emerson 2011). In 2014, the last year for which data was collected an estimated US\$10.6 billion was invested in this market (Saltuk et al. 2015).

Three sets of actors compose the impact investing industry: investors, intermediaries, and firms/funds. As with mainstream financial investing, impact investors include both asset owners and

¹ In focusing on the market of impact investing, this paper employs the case study method. The case study method is premised on the belief that in-depth, detailed, and comprehensive understanding can be derived from the empirical analysis of a single setting, as a "case" of a particular theoretical category (Eisenhardt and Graebner 2007).

asset managers. Asset owners consist of individuals and institutions (such as clients of private banks, private family offices, community development institutions, and charitable foundations) who typically invest using the financial services of asset managers, including boutique firms, or mainstream firms who have separate offices focused on impact investing. Intermediaries in the market of impact investing include consulting firms, government agencies, foundations, and academics, who generate infrastructure and provide consulting and data to participants in the market. Investment opportunities consist of both local firms and investment funds that coordinate the provision of capital to those companies. These firms and funds qualify for impact investment if they offer a market-based solution to a social or environmental problem (J.P. Morgan 2010; Bugg-Levine and Emerson 2011).

By focusing on a firm's business model as a source of social or environmental value as well as economic value, impact investing differs from other long-standing types of ethically oriented investing. It diverges from SRI, a well-established form of investing that is characterized instead by the screening of firms based on the negative effects of their products on consumers or the consequences of businesses' production processes on stakeholders, often with the assumption that investment will not produce financial return. In its attention to the socially and environmentally beneficial impact of firms' business models, impact investing also departs from responsible or sustainable investing, where a firm's performance on environmental, social, and governance criteria is also highlighted but viewed only from a financial perspective as a material source of risks and opportunities that generate long-term shareholder value (Monitor Institute 2009; J.P. Morgan 2010; Bugg-Levine and Emerson 2011).

As noted above, impact investing constitutes one of a growing number of concerned markets where economic exchange is employed for the pursuit of financial gain as well as political, social, and/or environmental benefit, supplementing or supplanting traditional efforts by the public and nonprofit sectors (Callon 2009; Geiger et al. 2014). In the broader project of international development, impact investing —in its use of financial investing in order to achieve economic gain as well as social or environmental benefit—replaces a long-standing dichotomy between philanthropy (where resources are given away for social benefit) and finance (where resources are invested for economic value); it negates the "binary choice between investing for maximum risk-adjusted returns or donating for social purpose" (J.P. Morgan 2010, 5).

Data and Methods

This essay focuses on the negotiation of value plurality, in the form of the co-presence of economic value alongside social and environmental value, for the concerned market of impact investing. It asks whether and how this value dissonance was recognized, defined, and negotiated in the early and formative years of the market of impact investing. To do so, it analyzes the genealogy of the calculative tools constructed by intermediary actors in this setting, given that "value depends on how valuation is done, when, by whom, and for what purpose" (Muniesa 2012, 28). The valuation infrastructure in this market consists of a reporting standard for firms' separate financial, social, and environmental value and a rating system that assigns stars to firms based on their social and environmental performance. Assuming a constructionist approach to valuation, the methodological approach used here is to outline the biography of these calculative tools as material objects (Kopytoff 1986; Desrosières 2001; Espeland and Stevens 2008).

To generate this biography of the market of impact investing's valuation infrastructure, the paper employs an extensive assortment of sources, including document analysis, field research, and qualitative interviews. First, I analyzed the content of documents and websites of organizational actors in the market of impact investing. I collected publicly available websites, published documents, and internet documents produced by members of this market, and gathered internal documents provided by the interview subjects. I also reviewed those websites that constituted, described, and diffused the calculative tools that made up the market's valuation infrastructure. I conducted document analysis of academic and media publications from 2007 to 2015 that were either written by or included quotes from market proponents or evaluators via a search of ProQuest.

I engaged in participant observation at three practitioner-oriented conferences, where some members of the market of impact investing made presentations and other members participated as attendees. These conferences, which respectively focused on the topics of social enterprise, sustainable investing, and social metrics, took place in the United States from 2010 to 2012. A growing body of scholarship views professional conferences as a space where actors make claims, contest over, and/or come to consensus concerning the field's identity through presentations and face-to-face interactions (Garud 2008). For each of the ten sessions where members of the market of impact investing presented, I took extensive field notes concerning both the content of each presentation and the follow-up discussion between presenters and attendees. While this data is certainly not representative of all conferences taking place in this market, these ethnographic observations provide a unique perspective by focusing not on the formal claims made by key actors to external audiences but by examining conversations and interactions occurring among professionals.

Finally, I conducted interviews with respondents involved in the construction of the market and in the creation of its calculative tools. Interviews were informed by a semi-structured interview guide that included questions about the subject's professional background, the organization's history and goals, the history, purpose, and future of the market of impact investing, the meaning of value/s in the market, and discussed the origins, construction, and intended purpose of the market's valuation infrastructure. Two methods of sampling were used to select interview subjects. Purposive sampling was used first to identify respondents based on an initial review of publications as key actors in the formation of the market and the construction of its main calculative tools. I then employed snowball sampling to ask those initial respondents to recommend other salient members of the market for participation in my study. Interviews were conducted with twelve staff members of organizations in the market of impact investing, including (a) influential proponents of the market for impact investing (n=4); (b) professional staff who served as evaluators by constructing the reporting standard and the ratings system (n=3); (c) early intermediaries in the market (including nonprofits, consulting firms, and academics) (n=4); and (d) early investors in impact investing (including charitable foundations, investment houses, and investment advisors) (n=4). Some of the respondents served in multiple roles. While the sample size here is small, it includes the majority of actors involved in the formulation of the valuation infrastructure in impact investing, as described in interviews and in publications that recount the market's origins (Bugg-Levine and Emerson 2011; Lane 2015).

Data Analysis

These sources were not only evaluated in terms of how they presented the origins, meaning, and purpose of the market's valuation infrastructure; but several other critical dimensions were also evaluated, including the history provided about the market, the mention and meaning of value/s for impact investing, and the origins of and actors involved in the construction of the market and its valuation infrastructure. During the processes of data collection and analysis, I employed the "abductive method," which has been defined as the cultivation of anomalous and surprising empirical findings against a background of existing scholarship and through systematic methodological analysis (Timmermans and Tavory 2012). As I gathered and analyzed relevant sources, I drew from and returned to theoretical expectations and analytical concepts gathered from related literatures in valuation studies and economic sociology in order to derive and test propositions from this scholarship. As common issues and themes emerged, I employed an iterative methodology, returning to past empirical sources and theoretical claims, and comparing analytical concepts and categories across the units of analysis.

Designing the Market of Impact Investing

To understand the question of value in impact investing requires attention to the activities of those actors who engaged in valuation work through the construction of the market's valuation infrastructure. In the scholarship, the work of "evaluators" is recognized to be particularly critical in the generation of calculative tools in a setting (Beckert and Aspers 2011; Bessy and Chauvin 2013). As one type of market intermediary, evaluators do not simply respond to existing understandings of value but also actively constitute it through their actions (Beunza and Stark 2005; Velthius 2005; Muniesa 2012). Through discursive work and/or the creation of calculative tools (such as ratings and rankings), these evaluators or "third parties" (Espeland and Sauder 2007) work to define and to assign value to entities in a market and to develop market devices which then "stabilize" that order of worth (Zuckerman 1999; Strandvad 2014).

Evaluators vary in their role and position in a market: while some engage in valuation practices and construct calculative tools as a professional project (Karpik 2010; Carruthers 2013), others work as experimenters in an "in vivo market" (Muniesa and Callon 2007)—they are powerful actors who engage in ongoing experiments, tests, and evaluations of conventions and calculative tools that map onto and enact a financial theory of the market in question. One instance of evaluators as market designers occurred in the formation of the carbon market in Europe, where regulatory agencies, multilateral organizations, non-governmental organizations (NGOs), and other actors worked to devise an appropriate socio-technical arrangement (Callon 2009; MacKenzie 2009). This type of evaluator "brings things into being by assembling them in a particular manner (in a particular site, through particular trials, and for a particular audience)" (Muniesa and Callon 2007, 539).

Similarly, the formation of the market of impact investing, and its constituent calculative tools, can largely be traced to the work of the Rockefeller Foundation as a powerful actor who promoted and funded the market of impact investing, with observers identifying the foundation as the "organizing instrument" (Jackson 2013) or the "architect" of this new financial market (Stabile 2010). Established in 1913 by John D. Rockefeller, Sr., the Rockefeller Foundation is one of the largest charitable foundations in the world with an endowment of US\$3.7 billion in 2014 and a mission to "promote the well-being of humanity." The history of the Rockefeller Foundation has been characterized by a series of defining core initiatives intended not only to guide its own funding but also to shape broader efforts in the arena of international development, including catalyzing the growth of public health and spearheading the Green Revolution in agriculture (Cueto 1994).

By 2000, the focus of the Rockefeller Foundation had shifted to the problem of global poverty, with an emphasis on fostering new strategies to alleviate economic inequality in the global South (Rockefeller Foundation 1999). In 2007, as part of that broader initiative, the Rockefeller Foundation committed to impact investing as a social project, premised on a particular theory of this new concerned market. Impact investing was viewed as a new and promising privatesector solution to social and environmental problems, superior to the traditional efforts of government and civil society actors. The specific rationales underlying the perceived virtue of impact investing, as offered in early publications by market advocates, were multiple, and demonstrated how financial markets are constitutively social in nature (Ortiz 2013). One source of appeal was derived from a theoretical modeling of the market where financial investors could obtain economic and social and environmental return on their investments, as opposed to the long-standing premises of modern portfolio theory. Another justification came from the broader claim that poverty and other social problems were best addressed by the inclusion of disadvantaged populations in the market. The final attraction of impact investing for market proponents derived from the scale of economic resources available in the finance market to address social and environmental challenges, as compared to the amount of aid historically provided by governments or NGOs (Godeke and Pomares 2009; Monitor Institute 2009; J.P. Morgan 2010; Palandjian 2010). In the words of Judith Rodin, the president of the Rockefeller Foundation who spearheaded the impact investing initiative:

We recognized, if you put a price tag on all the social and environmental needs around the world, it is in the trillions. All of the philanthropy in the world is only \$490 billion. So, the needs far exceed the resources. The one place where there is hundreds of trillions of dollars is in the private capital markets. So we, and others, began to wonder are there ways to crowd in private funding to some of these incredible needs (Kozlowski 2012).

Similarly, at one conference I attended on sustainable investing, a self-recognized impact investor (a partner in a small investment firm involved with for-profit health interventions in the global South), explained the appeal of impact investing at the start of his presentation, again by contrasting the scale of resources in the financial economy against those available in philanthropy, this time through a personal narrative.²

I think about myself and how I can make the world a better place. When I worked at [a large New York bank], I could take some amount of my income

² In this paper, I refer only to the professional background and the role of respondents in impact investing in the construction of the market's calculative tools in order to protect the identities of the research subjects.

and I could send it to a do-gooder nonprofit in the developing world ... But wouldn't it be even better if I could put a much bigger pool of money towards creating a better world? If I could take all this money that I've been investing just to make rich people even richer and invest it so they still get even bloody richer but so that also their money makes a difference. I would have access to so much more money that way and the scale of what could be done would be so much bigger, soooo much bigger. That's essentially the story behind [the name of his company].

With this philanthropic motivation behind its commitment to impact investing, the Rockefeller Foundation sought to put its weight behind the expansion of this new market. It recognized that the concept of market-based solutions to social and environmental problems was not new at the time: an assortment of distinct and uncoordinated types of markets already existed to address a specific social or environmental issue, including microfinance, community development, and clean technology (Godeke and Pomares 2009; Monitor Institute 2009; J.P. Morgan 2010). Microfinance, for instance, consists of the provision of financial services to low-income clients to whom traditional financial institutions have been unwilling to offer banking services. By 2006, over US\$25 billion was invested annually in U.S. institutions. Community development is a form of governmentregulated investment, whereby U.S. banks are encouraged to make investments available to low-income communities: in 2007, about US \$26 billion was invested in this market. With US\$148.4 billion of new investments by 2007, clean technology consists of finance capital directed to technological products aimed at environmental sustainability (Monitor Institute 2009).

The purpose of the Rockefeller Foundation in integrating these existing arenas into a single market was to increase the scale of impact investing by drawing into impact investing an entirely new type of investor—what publications and interview subjects called "mainstream" or "traditional" investors (Monitor Institute 2009; J.P. Morgan 2010).³ These investors historically had invested solely for financial return but they would provide a far greater amount of capital if they were to engage in impact investing, as opposed to the existing pool of impact investors. At the time, the majority of established investors in impact investing were charitable foundations in the United States, who were increasingly investing a small portion of their endowments in for-profit vehicles that furthered their social mission (Monitor Institute 2009; J.P. Morgan 2010).

³ The term "impact investing," coined in 2007, was intended by proponents to convey the integrative identity of the new market: it served as a "broad, rhetorical umbrella under which a wide range of investors could huddle" (Bugg-Levine and Emerson 2011, 8).

In contrast, if the promise of impact investing initiative relied on the "unlocking" of the vast scale of private resources of mainstream investors available in the global finance economy, then the Rockefeller Foundation, along with other advocates of the market, realized that it needed to access that much larger "untapped" pool of finance capital, to quote from one senior staffer at the time. The goal was to "expand the community of Impact Investors" beyond charitable foundations and other long-time impact investors and to incorporate mainstream investors in order for impact investing "to move from niche to mainstream" (Palandjian 2010, 2). In the words of the chief operating office of a nonprofit private equity fund already active in impact investing: "All of us fantasise about capital flowing to the space from retail investors and public equity and professional money managers" (Stabile 2010).

Targeting Mainstream Investors

The Rockefeller Foundation began a concerted effort to learn more about this type of investor and how impact investing could be made appealing to them. First, in 2007, the foundation convened a small meeting of impact investors to learn more about these actors' understandings of the potential and challenges of growing this market by the inclusion of a new type of investor. In 2008, the Rockefeller Foundation committed US\$38 million to market design and experimentation (Lane 2015). That year, a portion of that money went to a more comprehensive study of the needs of investors, both current and potential, again with an eye to attracting mainstream investors to impact investing, including interviews with investors "about their experience with investing for impact, how they think it may evolve, and what will best accelerate its evolution" (Monitor Institute 2009, 6).

Here, in contrast to theories of market formation that focus on the activities of suppliers (White 1981), it was apparent that the Rockefeller Foundation focused on the needs of investors when envisioning the future success of this new market. An emphasis on investors as consumers in this finance market mirrors other literature within the pragmatist approach to value and valuation (Yenkey 2011), including studies of qualification—the process by which a market reaches consensus on the identifying properties of goods in a market (Callon et al. 2002; Callon and Muniesa 2005). For those actors, including intermediaries and suppliers, involved in the qualification of goods, consumers are the targeted audience: "what is sought after is a very close relationship between what the consumer wants and expects, on the one hand, and what is offered, on the other" (Callon et al. 2002, 202). In an interview with a long-time impact investor who had participated in the Rockefeller Foundation's focus groups, the respondent similarly noted:

From the start, the Rockefeller staff clearly were interested in the demand side of growing impact investing. You could see that really clearly in terms of who was invited to their retreat in Bellagio [the location of the first 2007 meeting] and so it wasn't until later that their attempt to build the market included an effort to pay attention to the supply side. (Interview with early impact investor)

By this stage, the Rockefeller Foundation had accumulated a wealth of knowledge about the perceived problems and challenges entailed in establishing a market of impact investing which would appeal to traditional investors. Two aspects of this data were most relevant for understanding the subsequent valuation work sponsored by the foundation. First, whether emic and/or etic in origin, the 2009 report was characterized by the extension of mainstream financial theory to the case of impact investing as a finance market. At the heart of the publication was a claim that the scale of resources invested in this market would only grow if the market shifted from "fragmentation" (characterized by distinct finance markets—e.g. microfinance, community development, and clean technology) to "maturity" (in which a single market infrastructure would facilitate market efficiency). Until a mature market was created in which demand and supply was aligned and transaction costs reduced, mainstream investors would not participate in impact investing. As an early seminal report concluded:

The pressing question is whether impact investing will remain a small, disorganized, underleveraged niche for years or even decades to come—or whether leaders will come together to fulfill the industry's clear promise, making this new domain a major complementary force for providing the capital, talent, and creativity needed to address pressing social and environmental challenges. (Monitor Institute 2009, 5)

Second, the report then drew from the "lessons" of successful emerging industries, including venture capital/private equity, to identify the barriers that needed to be removed to enable the market's transition, given that "mainstream players" will only enter a "functioning market" (Monitor Institute 2009, 12). Three challenges were recognized as central to the success of impact investing, of which one consisted of the lack of an "enabling infrastructure" to facilitate this new type of investment for traditional investors. In this last concern, the issue of value—of what counted as value/s in the market, how the value of investments could be evaluated by investors, and via what types of calculative tools—was considered by the report's authors to be a central problem that had to be resolved if the industry was to grow into a mature market (Monitor Institute 2009).

The Dissonance of Financial versus Social and Environmental Value

The question of "what counts" in this report was approached from the perspective of investors. Impact investors, current and future, were argued to differ in terms of their understanding of the act of impact investing in regard to the relative importance of achieving financial return as compared to the importance of achieving social and environmental return. Drawing from interviews with investors and other members of the market, the report categorized impact investors as of two types: "impact first" investors (who "optimize social or environmental impact with a financial floor") and "financial first" investors (who "optimize financial returns with an [environmental/ social] impact floor") (Monitor Institute 2009, 32). In other words, some investors were willing to sacrifice an amount of financial return in order to achieve their intended social or environmental change (i.e. existing impact investors like charitable foundations), while others were not willing to make any or only a little financial sacrifice to do so (i.e. mainstream investors who would begin to engage in impact investing).

For both groups, social and environmental value mattered as a distinct regime of value from financial value, albeit in different ways. For "impact first" investors, the relative salience of financial value in the investment process depended on the amount of social or environmental value produced by an investment (Brandenburg 2010; J.P. Morgan 2010). For this group, "financial return became 'just one variable that an investor can readily and knowingly trade for another, such as mitigated risks or enhanced social impact" (Thornley and Daily 2009, 14). As one staff member with the impact investing initiative at the Rockefeller Foundation explained:

Some investors like foundations are willing to give up financial return if they know that they will be making a huge social impact. And, you probably know this already, but when a foundation makes a[n] MRI [Mission-Related Investment], it might worry about proving its social impact, like a worry about potential [Internal Revenue Service] or media scrutiny of what they're doing? So then, when you think about all of that, being able to measure the social return of an investment, alongside a consideration of financial return, was then crucial to continue to grow that portion of the market.⁴ (Interview with market proponent)

In contrast, for "financial first" investors, proof of social or environmental impact was needed to legitimate their engagement with

⁴ In the U.S., mission-related investing occurs when foundations invest a portion of their capital assets in a socially or environmentally oriented manner, such as the use of negative screening, shareholder advocacy, or impact investing. Such investments typically are subject to a more flexible expectation as to their rate of financial return. Mission-related investing had by the 1990s become a growing practice among large foundations, including the Rockefeller Foundation (Godeke and Pomares 2009).

impact investing, as compared to mainstream investing. Mainstream investors (and their advisors) were concerned about the potential trade-off of financial and social value.⁵ A staff member at a large consulting firm that had participated in the market's early history outlined that:

There was a general perception that the typical wealthy investor—someone who'd made his money on Wall Street and now was thinking about his legacy ... He might want his financial investments to align with his social values but—and here's where it gets tricky—the problem was that he also was operating within a broader culture in investing ... that put all its emphasis on fiduciary duty, and there was this general worry that if this fictional, archetypal investor was going to dip his toe into impact investing, he needed to be damn sure he was doing it for a good reason because there was this persistent belief that you couldn't do good and do well at the same time. He was ready to not make quite as much money as he could, but he was goddamn going to need some proof that he was saving the world to do it. (Interview with early intermediary)

For market advocates, this 2009 report on impact investing conclusively demonstrated the presence of multiple segments of impact investors, who held contrasting worldviews as to the relative salience and relationship of financial and social value. For the market to attract both of these types of impact investors, financial value would need to be kept juxtaposed and dissonant from social and environmental value as different regimes of value.

Multiple Values without Manifold Valuations

But, if maintaining multiple regimes of value were deemed critical to the growth of the market, then the question of valuation and valuation work in this new setting also became manifold. Investors—it was claimed—needed to be able to gauge the value of an investment along each distinct dimension. Yet, the seminal 2009 report argued that—in the market's current configuration—mainstream investors possessed difficulty in gauging the social or environmental value of investments, especially in their capacity to compare investment options. Drawing from the premises of finance theory, investors' perceived uncertainty represented a barrier to the growth of impact investing, unlike the estimation of financial value, where calculative tools and conventions

⁵ In addition, an institutionalized measure of social impact was viewed as critical for legitimating the emerging market against the charge that it was oriented only around the pursuit of profit (Brandenburg 2010). The 2009 report concluded that the formation of calculative tools would "help protect the credibility and reputation of the field from conventional investments being promoted as impact investments" (Monitor Institute 2009, 47). In the words of one academic advisor to the field that I interviewed, "what GIIN is worried about is that impact investing is seen by others as a way to greenwash mainstream investment in a world that's increasingly critical of globalization."

were already in place for investors. One "critical success factor" for the market was that investors need to "know what they are paying for" in terms of achieving their "social or environmental objectives" (Monitor Institute 2009, 37). Correspondingly, one of the staff at the Rockefeller Foundation at the time recounted that "the general impression was that new investors felt they were cognizant of how to do financial due diligence on an impact investment, but they didn't know how to do the social due diligence." And, to quote from one senior staffer of an early impact investment fund who participated in this process:

We realized really soon that we needed a way for investors to figure out how much social impact they could have so that they could compare different investment possibilities. Up to this point, impact investors, like the Rockefeller Foundation say, had been doing this on their own—they had a whole staff devoted to measuring the impact of their donations who then also measured the impact of investments, but there was a sense that someone in the mainstream investing world would not be willing to spend the equivalent time and energy to do so, much less be savvy enough without a background in philanthropy or development. Without someone doing it for them, impact investing would never get to scale. (Interview with early impact investor)

This problem of valuation could be removed with the construction of "reliable social metrics"—calculative tools that would facilitate the valuation of the social and environmental "impact" of investments for investors (Monitor Institute 2009, 15). The report's authors looked to "metrics" already present in mainstream financial markets as models for impact investing, given their perceived critical role in the success of those established markets. In one quote from an executive at Merrill Lynch who participated in the study, the report stated: "Imagine a commercial investing world in which there weren't any ratings agencies, or quantitative or qualitative risk measures: there would be no money coming into this world" (Monitor Institute 2009, 66). In contrast, parallel market devices to gauge firms' social and environmental value were absent in the existing practice of impact investing.6 As one lead evaluator at the Rockefeller Foundation retrospectively summarized: "This type of basic market infrastructure exists for purely commercial investors (GAAP, Moody's, basic portfolio management tools), but had yet to be built for the 'impact' dimension of impact investing" (Brandenburg 2012, 2).

If traditional finance markets were dependent on those calculative tools to thrive, then equivalent market devices to measure companies' social and environmental value were needed for the market of impact

⁶ The report noted that alternative calculative tools were present to measure the social behavior of firms, but only in other fields (such as socially responsible investing) that were based on different models of how businesses could affect social change (Monitor Institute 2009).

investing to expand to the desired scale. As staff at the Rockefeller Foundation proclaimed: "without standards and ratings, investors can't distinguish between good investments and bad ones" (Bugg-Levine et al. 2012, 6). Another participant in this process avowed that if such infrastructure was put in place, "investors will then be able to make decisions based on personal values rooted in facts that balance the financial, social, and environmental impact because we will have the supporting ecosystem behind what is being measured and reported" (Pressner 2009).

As is clear, traditional investors were the intended users of these tools, demonstrating, as has been noted by others (Young 2006; Vargha 2011; Muniesa 2012), that valuation work is not simply technical in nature but also a communicative act. It is a "situated activity aimed at establishing a value for a particular actor and purpose" (Moor and Lury 2011, 440). Here, market proponent's efforts in this regard were "absolutely meant to build a market for the for-profit investing world to participate," noted one senior executive who led the design of IRIS (Impact Report Investment Standards) (Stabile 2010). For market proponents, the intended result of this experiment with new calculative tools would be that traditional investors' concerns would be addressed and they would then be more likely to invest in the new market (Monitor Institute 2009). The current level of impact investments, according to two advocates of the market at the time, "could be much greater if there were a way to more clearly measure the good that came from these investments; with such a measure, more capital would flow to that activity" (Hagerman and Ratcliffe 2009, 44). At one conference on social metrics that I attended, an early participant in the construction of this valuation infrastructure stated that developing "consistent metrics in the industry" would "drive impact investing to become a truly effective capital market." Developing this valuation infrastructure, as predicted by the pragmatist approach to value, would do much more than simply measure the social and environmental value of investees, instead, as scholars have noted, valuation here would bring about or make that value for investors (Dewey 1939; Muniesa 2012; Helgesson and Muniesa 2013), facilitating the broader project of "unlocking" mainstream capital for impact investing.

Constructing Calculative Tools

In its articulation of a formal model of the market of impact investing, the 2009 report authorized the Rockefeller Foundation to administer and fund the construction of the market's necessary market devices. After another meeting of investors, two types of calculative tools were decided upon as critical to the success of this new market: a reporting standard to define and measure firms' social and environmental value

and a ranking system to evaluate investment firms and funds' social and environmental performance (Bouri 2011; Lane 2015). These calculative tools were to be modeled after parallel market devices present in traditional "capital markets" to estimate firms' financial value. But, in the process of adjusting these devices to this new market, these tools would be modified so as to only incorporate companies' social and environmental value, entailing its own distinct set of challenges.

Commensuration via a Reporting Standard

The first experimental calculative tool was the creation of the IRIS. Developed by a Rockefeller-sponsored nonprofit called the Global Impact Investing Network (GIIN), this market device was intended to address the recognized problem that impact investors did not have access to uniform terminology and consistent data on firms' social and environmental performance, thus making it difficult for investors to compare investment alternatives (Monitor Institute 2009; J.P. Morgan 2010). In one interview, I asked an evaluator involved in the construction of IRIS to describe the rationale for its formation, and she recalled:

There was this general sense that investors were dealing with inadequate data—what they needed to invest was apples to apple data. So if you were an impact investor you could look at the firm and check its financials to see about its fiscal health—is it making a profit? And then you'd try and do something equivalent for its social impact. But basically what was happening was that, for example, an investor who wanted to invest in getting women into the market—like by selling their crafts—would look at available data to try and assess the different social enterprises' social impact. So if social impact was defined as these women actually getting income from the sale of their goods, then one social enterprise might measure it one way—say by the number of items sold—while another might measure it by total annual income earned. This was happening all the time and there would be no way to see which firm was having the most success, having the most social impact. (Interview with evaluator)

As illustrated in this quote, companies that pursued similar goals were understood to be measuring their social value in different ways, leading to a lack of capacity for comparability for investors: IRIS was constructed by evaluators to overcome this challenge. As a reporting standard, IRIS was created for evaluators to play the same role in impact investing that the GAAP or the International Financial Reporting Standards (IFRS) play in mainstream investing (J.P. Morgan 2010; Bouri 2011). "IRIS" stated one senior executive at GIIN, the nonprofit charged with developing the reporting standard, "is intended to be analogous to GAAP: which reporting framework you use develops on which type of value you are trying to gauge." In mainstream investing, GAAP and IFRS each constitute a standardized framework for companies' employment when they construct their financial

statements. They are intended to provide investors with equivalent terms and indicators to generate comparable information about firms' financial performance. In its transposition to impact investing, this new reporting standard was to be used by firms and funds to annually report on their financial, social, and environmental performance, with the resulting data to be used by investors for their own tailored needs, to be aggregated by intermediaries for benchmarking, and to be employed by rating systems (Brandenburg and Gelfand 2009; GIIN 2015). In this view, IRIS would produce data that would "enable impact investors to compare investments against their peers — a capacity that proved central in the growth of mainstream venture capital and private equity" (Godeke and Pomares 2009, 122).

Theoretically, IRIS's central purpose was to facilitate commensuration—the "measuring of different objects with a common metric" (Espeland and Stevens 1998, 408). Commensuration entails the standardization of goods: they must be made "common—the opposite of being uncommon, incomparable, unique, singular and therefore not exchangeable for anything else" (Kopytoff 1986, 69). The commensurability of entities can take the form of the assignment of price but it can also occur through the construction of common non-economized units of measurement, as in the case of universities being made comparable by a growing assortment of third-party ranking systems (Espeland and Sauder 2007).

However, reflecting the disparate origins of impact investing in multiple markets, the widely recognized challenge was that no single meaning of the regime of social and environmental value existed among investors—the targeted users of the proposed standard. Instead, evaluators perceived that investors defined and so measured social and environmental value in a multitude of ways. Value plurality, in other words, existed in the market of impact investing not only in terms of the presence of the multiple regimes of financial, social, and environmental value, but also in terms of the presence of various conceptions of social and environmental value, each entailing a different meaning and corresponding metric/s of value.

The seminal 2009 report on the market of impact investing, for instance, concluded that "impact investing is both one thing, and many things," listing clean technology, microfinance, global health, job creation, and small and medium enterprises (SMEs) in developing countries, as well as community development in the United States as constituent practices of impact investing (Monitor Institute 2009, 6). An early advisory text to potential impact investors, produced by an affiliate of the Rockefeller Foundation, gives a sense of the disparate nature of social and environmental value in the markets, with the authors asking the reader: "What issues will your impact investing address? Do you want to address widespread global problems such as poverty, disease or climate change, or would you rather focus on

specific or domestic issues like literacy, local education or affordable housing? Geographic choices must also be made as well" (Godeke and Pomares 2009, 24). Such variation across investors' investment choices made the production of comparable data difficult. A staff member at a smaller foundation that was an early intermediary in the field and that participated in the creation of IRIS noted:

Overall, impact investing is about the quest for "public goods" through private means. But what that social impact looks like is investor specific. For example, one might want rural electricity in Africa while another might care about water sanitation for villagers in India. Other investors, like [name of an established impact investing fund] might think social impact arises when the very poor obtain employment. The problem is that if we just count the number of customers who receive rural electricity, you omit a count of the other kinds of social changes that other investors care about. How do you make different kinds of social impact comparable? Can you make them comparable? (Interview with intermediary and evaluator)

Given the multiple meanings and metrics of social and environmental value that existed among investors in the market, ranging across sectors, beneficiaries, and geographies, the question that arose for evaluators was how to construct a single reporting standard for the market that would allow investors to engage in comparison across firms and funds.⁷ One possibility, as suggested by the economics of conventions literature (Boltanski and Thévenot 2006), would be to "construct a compromise across the contested values and multiple logics of action" (Huault and Rainelli-Weiss 2011, 2). Similarly, commensuration typically involves the prioritization of one quality of worth over others: it "can be understood as a system for discarding information and organizing what remains into new forms. In abstracting and reducing information, the link between what is represented and the empirical world is obscured and uncertainty is absorbed" (Espeland and Stevens 1998, 317).

For proponents of impact investing, the concern over creating a standard that enacted a single meaning and metric of social and environmental value was that it would capture the type of social value envisioned by some investors but not others. The 2009 report on the

⁷ In result, the challenge of social and environmental valuation in impact investing differs from that of the recognized complexity of financial valuation in mainstream financial markets. In the case of mainstream financial markets, evaluators largely concur as to the underlying meaning of financial value (in terms of the production of shareholder return) but disagree as to how to measure it, electing from among an assortment of data and ratios to choose those that best signal a firm or stock's future financial value (Beunza and Stark 2005; Beunza and Garud 2007; Ortiz 2014). In contrast, actors in impact investing hold not only competing understandings of which data and ratios would best represent/capture a firm's social value but also possess different definitions of the underlying meaning of social value, as discussed herein.

future of the market concluded: "We need to find a metric that preserves each investor's flexibility at driving toward their individual impact investment objectives" (Monitor Institute 2009). In result, a compromise in the form of an overarching metric was deemed unfeasible. In an illustrative interview, a staff person involved in the creation of the reporting standard recalled why it did not entail a single, broader metric of social and environmental value. She stated:

We had so many arguments over this. We knew we couldn't just use the metrics from one sector and ignore other metrics, cuz then we were leaving out some kinds of impact investing. So it had to be something that transcended those differences. And there were some options out there. There's a foundation or nonprofit maybe in London that converts different kinds of social benefits into a single measure of clients' improved human rights. That sounded really cool but really we were worried that human rights is kind of an esoteric topic for some. And there's SROI [Social Return on Investment], which assigns a monetary value in terms of the government savings that result from a social enterprise's work with clients, but that one folds social value into a financial measure so you can't tell precisely what is a firm's social impact. So none of those worked either. If you have a better idea, let me know since we couldn't and still can't figure it out. (Interview with evaluator)

Given these concerns, the solution for these evaluators was to create an inclusive reporting standard that incorporated the multiple existing meanings and metrics of social or environmental value as they were already enacted in practice by impact investors (as based on interviews with investors). The resulting reporting system, labeled the Impact Reporting Investing Standard (IRIS), included over forty existing taxonomies and reporting standards of social and/or environmental value from established impact investing markets, including community development and microfinance, with staff also working with "evaluation experts" to generate new standards for those markets recognized as integral to impact investing but lacking established metrics (Bouri 2011). Further, at conferences that I attended, GIIN staff repeatedly encouraged the submission of other existing metrics of impact investment that currently were overlooked by IRIS for future inclusion in the reporting standard.

As presented on the IRIS website, these metrics captured the varied and multiple dimensions of social value present across investors and firms in the market. In an early iteration of the reporting system, the "commonly reported impact terms" included an organization description (its mission, operational model, and location); product description (a firm's products, services, and target client base); product impact (the benefits produced by products and services); operational impact (a firm's policies, employees, and environmental performance); and, finally, financial performance (financial performance metrics

consistent with GAAP and IFRS (IRIS 2011)).8 Each of IRIS's resulting over 400 metrics was based on an operational definition (although guidance on measurement was sometimes provided), based on the firm's salient policy, practice, or output (the number of goods/services provided or individuals assisted). Some of these metrics were required reporting for all companies. One example of a universal or "crosssectoral" metric was "Permanent Employees," defined as the "number of people employed by the organization at the end of the reporting period." Other metrics were required reporting only for companies in a specific social or environmental sector. For example in the sector of "energy, environment, and water," "Potable Water Produced" was defined as the "amount of potable water produced during the reporting period" (IRIS 2011; Hayat 2013). The result of such an inclusive reporting standard was that firms and funds could be required to report on as many as 170 different metrics of their financial, social, and environmental performance (Simon and Barmeier 2011).

Valuation via a Rating System

Yet, while IRIS created the capacity for commensuration, a second calculative tool was deemed necessary that performed the act of valuation for investors. Here, the concept of valuation refers to a social practice concerned with assessing and so valorizing the worth of salient entities according to a particular quality of worth, or what sometimes is also called evaluation (Helgesson and Muniesa 2013; Vatin 2013). In 2011, the Global Impact Investing Reporting System (GIIRS) was created by an independent nonprofit, called the B-Lab, with funding and sponsorship from the Rockefeller Foundation. First conceptualized in 2008 by market proponents, the rating system was intended to evaluate investment opportunities for investors according to their "social impact" (Bugg-Levine and Emerson 2011). As one staffer at B-Lab, the nonprofit, noted, "While IRIS created the capacity for comparison, it doesn't actually provide an impact rating for companies or funds while our product provides exactly such a judgment."

The idea of a rating system for social impact was motivated by market proponents' perception that the lack of rating system served as a barrier to mainstream investors' participation in impact investing, as noted above (GIIRS 2010). In this view, investors

need to know not only that everyone calculates metrics like carbon tonnage or defines terms such as "low income" the same way, but also how those reported metrics stack up against those from comparable companies and against a

⁸ The inclusion of metrics of financial performance here was intended to ease investors' evaluation of firms by "incorporating all necessary factors into a one-stop shop kind of thing," as summarized by a senior staffer at GIIN.

generally accepted set of benchmarks for low, medium and high impact investments. (Krogh 2009, 17)

Again, as with IRIS, the intended users were mainstream investors who would be assisted in the act of impact investing. As the cofounder of B-Lab asserted: "The core users will be institutional or high net worth investors or fund managers or entrepreneurs in the impact investing world" (Stabile 2010). The development of a rating system, it was posited, would result in their entry into the market of impact investing. A managing director at Rockefeller Foundation involved with the impact investing initiative proclaimed: "credible social ratings like GIIRS will be crucial to enable mainstream investors to convert their growing interest in impact investing into action" (GIIRS 2011, 2).

As with IRIS, this calculative tool was modeled after an existing market device in traditional capital markets. GIIRS was intended to be equivalent to established ratings systems in the mainstream financial industry, including Morningstar's ratings of mutual funds and Moody's credit ratings. A respondent outlined to me: "Think Standard & Poor's but for social and environmental impact. That's what they were aiming for." These ratings agencies provide investors with what the evaluators posit to be independent and objective valuations of the capacity of debtees or investees to meet their fiscal responsibilities. These ratings serve as "judgment devices" (Karpik 2010) for mainstream investors, with these calculative tools performing the otherwise complex and ambiguous act of financial valuation for them.

Similarly, GIIRS was intended to serve a similar judgment function for impact investors but in regard to the social and environmental value of impact investees. By assigning a single score and a number of stars to investees, this rating system performed valuation for investors by reducing the complexity, ambiguity, and effort otherwise entailed in the act of valuation of impact investment options. A staff member at a consulting firm with a long-time history in the market described GIRS to me as a "user-friendly shorthand" and as an "accessible shorthand" for investors to "know which investments will best give them the type of social impact they're after. Its strength is its ease of understanding." A senior executive at the Rockefeller Foundation outlined: "The idea is for investors who don't want to go deep into the data to have a service that does that on their behalf to scale this industry and allow it to grow" (Chang 2014). In addition, following one justifying rationale of rating agencies in mainstream finance, GIRS was framed as an independent and objective third-party source of data. Ratings, it was claimed, were based on uniform and comparable data based on IRIS indicators. The rating system also emphasized its reliance on transparent and verified data, complete with an audit and assurance process. While companies self-report their survey responses, the data was reviewed by a large accounting company as a third-party

verification service provider before the company received a rating. Finally, the rating system was also touted as "independent," as the ratings methodology is overseen by a separate board, composed of industry experts (GIIRS 2010, 2015).

As with IRIS, the evaluators who constructed GIIRS needed to negotiate the multiple meanings and metrics of social and environmental value present in the broader community of impact investing. Their solution both paralleled and departed from that of IRIS. On the one hand, evaluators' resolution of the challenge of value complexity was to incorporate a wide range of different dimensions of social and environmental value into the rating system. The GIIRS website, for example, states that the rating system is "holistic" and recognizes that "a company has multiple paths to impact" (GIIRS 2015). In an early iteration, GIIRS required each company to complete a self-reporting survey of 160 questions about their salient policies and practices in order for the rating system to have adequate data to gauge their performance (GIIRS 2010).

On the other hand, GIIRS as a rating system did engage in the reduction of information required to produce commensurability by evaluating firms according to a relatively limited criteria of social and environmental value. Reflecting the existing mission of the nonprofit charged with developing GIRS (Bouri 2011), these evaluators drew from both impact investing's emphasis on firms' business models as a source of social or environmental value and the definition of social and environmental value found in the field of corporate social responsibility CSR), which—by the 2000s—had come to emphasize firms' treatment of stakeholders, governance practices, and (as with impact investing) environmental performance (Barman forthcoming). Accordingly, an early version of GIIRS included five key dimensions of firms' behavior, including a firm's "leadership/accountability" (its governance policies and transparency of reporting); "employees" (its compensation and benefits, the extent of employee ownership, and the safety of the work environment); "environment" (its environmental policies governing its corporate offices, transportation/distribution of goods, and manufacturing facilities); "community" (its engagement with local communities and its supply chain, its policies ensuring diversity, and its philanthropy guidelines); and "products & services" (its sale of beneficial products and/or services to those in need) (GIIRS 2010).

GIIRS assigned points for companies' possession of the desired policy or practice in each regard and then aggregated a firm's numerical score on each of these five criteria. As one early guideline outlined: "A company begins the assessment with zero points and earns incremental positive points for each positive impact policy, practice and achievement" (B-Lab 2011, 6). Drawing on this quantitative measure, the rating system then assigned a percentage and

a number of stars (out of five) to a firm in order to communicate its social and environmental value to investors. These scores could then—evaluators suggested in their publicity material—be comparatively employed by potential investors hoping to identify those opportunities that provided the most social and environmental return, further tailored on an interactive website to an investor's specific interest, including a particular "impact" area (e.g. gender equity, environment, or health), industrial sector, geographic region, or organizational size (GIIRS 2010, 2011).

Concluding Remarks

In this paper, I have analyzed impact investing as a case of a concerned market where economic exchange is promoted as a means to pursue both financial and social or environmental value. Methodologically, I employed the established strategy of studying the early history of this market (Callon 2009; Huault and Rainelli-Weiss 2011; Doganova and Karnøe 2015), premised on the assumption that in such a setting, "values and valuations are subject to controversy or otherwise explicit contemplation" (Helgesson and Kjellberg 2013, 366). Drawing from a pragmatist perspective (Dewey 1939; Muniesa 2012), I sought to account for how the centrality of value plurality to this market was recognized, defined, and negotiated, by offering a genealogy of the market's calculative tools. These market devices, including a reporting standard and rating system, valued and so valorized the social and environmental value, as distinct from the financial value, of firms and funds as investment options.

The case of impact investing thus provides a compelling contribution to scholarship on the role of the market in contemporary society. As has been noted by other scholars, financialization, and its attendant emphasis on shareholder value, characterizes an increasing array of societal spaces (Krippner 2005; Ortiz 2014). In the case of impact investing, the reach of the finance economy similarly is now extended to socially and environmentally beneficial goods and services that historically have been the provenance of the state and/or civil society. Impact investing constitutes one concern of observers of this new market, and a parallel expectation of theoretical scholarship has been that social and environmental value, as distinct regimes of value, will be subjugated to the logic of the market through the assignment of financial value to investment opportunities based on their production of shareholder value, or what is called "capitalization" (Muniesa 2012; Ortiz 2014).

In contrast, as evident in the calculative tools that have been deployed in this setting, the capitalization of all types of value has not occurred in this setting. While impact investing entails the extension of finance to a new societal space, it has not entailed the capitalization of

firms' social and environmental value via reference to their economic worth for shareholders. Instead, the ensuing measure and meaning of value in impact investing remains multiple, as intended by the market's initial experimenters in their envisioning of impact investing and so constitutes a case of value dissonance, where the presence of multiple qualities of worth "co-exist in a space without any mutuality apart from temporal and spatial co-presence" (Kjellberg et al. 2013, 22). This juxtaposition aligns with some concerned markets (Doganova and Karnøe 2015), such as the market of weather derivatives (Huault and Rainelli-Weiss 2011), while standing in contrast to others, where consolidation around an economic order of worth occurs and a price is assigned to goods, as in the case of carbon markets or fair trade goods (MacKenzie 2009; Reinecke 2010).

Accounting for the ongoing presence of value complexity in impact investing constituted an accompanying task of this essay, thus extending our theoretical understanding of the conditions underlying the role of value in markets. Drawing from the broader literature on the role of market intermediaries as evaluators (Velthius 2005; Beckert and Aspers 2011; Bessy and Chauvin 2013), the paper framed the construction of this socio-technical arrangement as among several experiments conducted by powerful proponents to establish the market of impact investing, akin to the experimental efforts that have occurred in the design of other civilizing markets (Muniesa and Callon 2007; Callon 2009). The social project of these powerful advocates, in the sense of addressing social and environmental inequities, was to scale this new market as a private, neoliberal solution to social and environmental challenges in the developing and developed world. Doing so, in this case, would require the entry of mainstream investors into the market, and so attention was given to assessing the worldview of those precise actors, so that their concerns over impact investing (as premised on its dual pursuit of economic and social or environmental value) were to be mitigated.

The recognition that actors' worldviews matter for understanding the negotiation of value in a setting is not new (Boltanski and Thévenot 2006; Huault and Rainelli-Weiss 2011). However, the specific way in which mainstream investors' conceptions of value mattered in impact investing does provide an innovative contribution to this scholarship. In contrast to the predictions of extant literature, the juxtaposition that arose between financial value as opposed to social and environmental value in setting did not result from market members' moral concerns that the pursuit of economic gain would crowd out other qualities of worth (such as those based on equality or collective welfare) (Healy 2006). In the case of impact investing, the use of market methods and finance capital to address social and environmental problems was not perceived by investors as a case of "hostile worlds," whereby the pursuit of non-economic value was put

in threat by its presence in the market (Zelizer 2005). Instead, investors in this market embraced the plurality of values present in impact investing and expressed no moral discomfort with the simultaneous pursuit of economic value alongside social and environmental value.

Having estimated mainstream investors' perspectives on impact investing, market proponents then sought to address the perceived barriers to their engagement in this new market, with attention given to these actors' emphasis on the ambiguous and opaque quality of the social and environmental value of impact investments. Drawing from the theoretical model underpinning and the calculative tools employed in established financial markets, market proponents acted as evaluators by extending the market devices present in mainstream finance to this new market. The task was to employ analogous judgment devices in impact investing in order to perform the tasks of commensuration and valuation for investors without economizing the social and environmental value of firms in the sense of capitalizing their worth for shareholders. In all, the success of proponents' efforts to frame and structure impact investing as a financial market was contingent upon the construction of calculative tools that did not economize social and environmental value but rather brought it into being as a distinct regime of value, alongside financial value.

By addressing the question of how value plurality was identified, defined, and negotiated in the market of impact investing, this paper has responded to the call "for continued work on how to conceptualise the simultaneous dealing with multiple values as part of market practice" (Helgesson and Kjellberg 2013, 367). In tracing out the history of this market's valuation infrastructure, it has sought to demonstrate that calculative tools are material objects by which both are constituted and which bring about multiple regimes of value in concerned markets, as one illustration of a pragmatist approach.

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Ineffable Cultures or Material Devices: What Valuation Studies can Learn from the Disappearance of Ensured Solidarity in a Health Care Market

Teun Zuiderent-Jerak and Stans van Egmond

Abstract

Valuation studies addresses how values are made in valuation practices. A next—or rather previous—question becomes: what then makes valuation practices? Two oppositional replies are starting to dominate how that question can be answered: a more materially oriented focus on *devices of valuation* and a more sociologically inclined focus on ineffable *valuation cultures*. The debate between proponents of both approaches may easily turn into the kind of leapfrog debates that have dominated many previous discussions on whether culture or materiality would play a decisive role in driving history. This paper explores a less repetitive reply. It does so by analyzing the puzzling case of the demise of solidarity as a core value within the recent Dutch health care system of regulated competition. While "solidarity among the insured" was both a strong cultural value within the Dutch welfare-based health system, *and* a value that was built into market devices by health economists, within a fairly short time "fairness" became of lesser importance than "competition". This makes us call for a more historical, relational, and dynamic understanding of the role of economists, market devices, and of culture in valuation studies.

Key words: culture; devices; social studies of markets; sociology of economic valuation; health care markets; performativity

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© 2015 Teun Zuiderent-Jerak and Stans van Egmond. LiU Electronic Press, DOI 10.3384/VS.2001-559.153145 http://valuationstudies.liu.se Culture: "At last we meet again;

Hadn't I scared you off for good?"

Device: "I'm good at hiding from the grand; That's what you never understood!"

Culture: "What is the fight we'll pick today?

Those bridges seem to get revived!" 1

Device: "Please not again! I'm victor there.

My politics beyond surmised!"

Culture: "It's really *not*, but ... let's take bikes. There it is clear that I make you!"²

Device: "How stale, repetitive you are! Can't you come up with something new?!"

Culture: "It's *new* you want? Well, Values then; The stakes couldn't be further raised!"

> Device: "An easy one; values *I* make; Such has been shown, case after case."

Culture: "That's only 'cause you don't compare! Beyond the case, 'tis I who rule."

misleading-innocence-tracing-what-a-bridge-can-do).

Device: "Well, let us make this interesting;

A welfare market's hard to fool..."

¹ The classic debate on the role of Moses' bridges in materializing the politics of discrimination (against minorities by being too low (or not!) for buses to pass underneath them, making the beaches of Long Island inaccessible to those not traveling by car) is perhaps one of the best known examples of an exploration of the relationship between artifacts and politics/culture (Joerges 1999; Winner 1980; Woolgar and Cooper 1999). The positions presented in this debate are highly similar to the ones that will appear in this article as it unfolds. The continued relevance of such debates is shown by its revival in a recent documentary on the presumed politics of those bridges (see http://www.cca.qc.ca/en/education-events/2518-

² Wiebe Bijker's study of how bicycles got shaped by relevant social groups is another renowned case of varying positions on the dynamics between culture and technology (Bijker 1995). The fairly unidirectional influence of social groups on technology design that sets out Social Construction of Technology (SCOT) from more radically constructivist theories has been criticized for failing to address material constraints and agency (Jasanoff 2004) and has been classified as 'social determinism' (Hughes 1994).

Introduction: If Values Are Made in Valuation Practices, How Are Valuation Practices Made?

The development of market arrangements in public sectors within welfare states is an attractive site for valuation studies. Empirically, this topic is surely not understudied: public sector reforms within the paradigm of "the market" as a solution for the perceived ineffectiveness of the public sector have been analyzed and criticized by many.³ Such criticisms have traditionally focused on market logics and the suitability—or lack thereof—of competitive arrangements to address public concerns: the market would infringe upon public values in ways that need to be empirically shown. In contrast, scholars in the emerging field of valuation studies turn markets for public goods into the empirical study of public values as practical accomplishments that play out differently in a wide array of valuation practices (Dussauge et al. 2015). Precisely the often sticky and repetitive narratives about the contrast between "the market" and "public values" in fields like public administration, makes markets for public goods an attractive topic for the study of valuation.

This shift to the study of how valuation practices shape rather than implement or obstruct public values, gives rise to a next—or rather previous—question: what, in turn, actually makes valuation practices? Here valuation studies draws extensively on sensitivities from two of its "mother disciplines": economic sociology and science and technology studies (STS). Taking inspiration from economic sociology, scholars tend to seek to explain valuation practices that are made in social and cultural arrangements and that in turn make certain forms of valuation more likely than others (Boltanski and Chiapello 2005). Drawing on STS sensitivities about the role of devices in the construction of the social, other scholars are attending closely to the role of (market) devices (Callon et al. 2007) and economic theories (MacKenzie et al. 2007) in the shaping of valuation practices.

Tensions between these two possible answers to the question "if values are made in valuation practices, what makes those valuation practices?" produce something of a leapfrog academic debate on valuation studies in relation to markets for public values. Economic sociologists take the importance of cultural embedding as a starting point. Culture's importance ties in neatly with the need for comparative analysis, which then leads to the empirical finding that "culture matters". In contrast, social studies of markets scholars, starting from STS sensitivities about the performativity of (economic) scientists and

³ See e.g. Balle Hansen and Lauridsen 2004; Hunter 2005; Pierson 1994, 2004; Porter and Olmsted Teisberg 2004; Ranade 1995; Walsh 1995, and others.

(market) devices, carry out detailed case studies of individual market making practices in which they discover that economists and devices matter for the development of markets.

In this article, we want to take the reader on a journey that leads through a somewhat less parceled scholarly landscape. We rather want to show, based on our scholarly background in STS, how we started out studying the role of health economists and market devices in the construction of the Dutch health care market, but found that the role of these scientists and their devices changed substantially over time. Where initially they seemed rather successful in enacting a health care market that safeguarded the widely held cultural value of solidarity about access to and quality of health care, we found that over time health economists increasingly faced a cultural shift toward prioritizing the value of *competition* over solidarity. The point we want to make here is that this shift can neither be explained by focusing on economic devices enacting competition over solidarity, nor through a lack of cultural embedding of those devices in a culture that was in fact about competition: the devices and the cultural values that both initially aimed at prioritizing solidarity over competition, were equally unsuccessful over time.

Don't worry! We will not be presenting an even grander explanation toward the end of this article—one that "underlies" or "hovers over" both devices and culture. We rather want to tentatively explore how initial success in market making by health economists had substantial consequences for the cultural and political acceptability of competitive behavior by health insurance companies, some of which started to act in ways that deeply undermined the enactment of solidarity among the insured, in spite of the presence of market devices that were built to safeguard solidarity. If, as in our study, neither economists, nor market devices, nor culture can be mobilized as the factor explaining what makes valuation practices, the question we simply want to raise is this: how can valuation studies contribute to an understanding of making markets that renders shifts like the one we encountered from solidarity to competition come as somewhat less of a surprise?

To address this question, we first outline some of the common responses to the question "what makes a valuation practice?". Then we turn to our case of the substantial changes in the Dutch market for hospital care through the regulation of health insurance, with special focus on the development and use of the risk adjustment system (RAS) which was supposed to ensure that solidarity among the insured would not be at odds with competition between insurers. After this we return to the question of how this case may help the study of market

valuation proceed beyond the repetitive move of inverting culture and devices as final explanations and what this means for how valuation studies analyzes valuation practices.

Economists, Devices, and Culture in the Study of Market Valuation

Given the striking omission in the extensive public administration literature of the role of market devices and of economics in policy change, focusing on their role provides an interesting entry point into the debate. Valuation studies has an important contribution to make here to ongoing debates since, as far as devices are addressed in public administration, public policy instruments are generally taken as instrumental; that is, as innocent tools of policy makers that are put to use quite straightforwardly to meet the means formulated by politicians. The same can be said for the role of science: although public administration scholars recognize scientific research as a social practice that contextually and continually comes about in specific historical and linguistic contexts (Fischer 2003; Hajer and Wagenaar 2003; Yanow and Schwartz-Shea 2006), studies on science in policy often focus on the instrumental role of science in policy making, for example in legitimizing democratic decision making under conditions of uncertain knowledge and within changing political systems (Maasen and Weingart 2005: 15; see also Giddens 1994; Hall 1993; Lindblom and Cohen 1979; Weiss 1991 for similar arguments). Pierre Lascoumes and Patrick Le Gales (2007: 2) argue that policy instruments are generally seen "either as a kind of evidence, as a purely superficial dimension ... or as if the questions it raises ... are secondary issues, merely part of a rationality of methods without any autonomous meaning". This instrumental understanding of instruments and economics is hard to reconcile with some empirical studies which show that policy instruments produce their own effects, independently of the intentions of policy makers or politicians.

Scholarship on policy change and public sector reform that finds its inspiration in STS has pointed precisely to the importance of analyzing the role of instruments and economics in market oriented health policy reforms (see e.g. Breslau 2013; Johansson Krafve 2014; Lascoumes and Le Gales 2007; Sjögren and Helgesson 2007; Zeiss and Van Egmond, 2014; Zuiderent-Jerak et al. 2015). Rather than seeing the instruments of policy change as the *implementation* of policy aims, STS scholars have emphasized that the involvement of economists and their market devices have far-reaching normative implications for what public values are enacted in policy practices. Such scholarship on the

"performativity" of economics (Barry and Slater, 2002; Callon, 1998; MacKenzie and Millo, 2003) considers economic science not only as a mode of investigation and classification of (social) phenomena such as for example market-ization, rational behavior, and moral hazard, but as an important actor that actively brings these phenomena to life through this investigation and classification. Such embeddedness of economic markets in economics (Callon 1998: 1) approaches economic science and devices as active agents in the construction of markets. This means that market consequences often exceed and change the policy aims, which makes the inclusion of market devices and practices by economists in policy analysis part of a relocation of political discussions from explicit policy processes to scientific and "instrumental" domains. This relocation has consequences for the accountability and legitimacy of political decision making regarding the development of health care markets, and hence calls for more research.

Such research raises questions about the relationship between policy instrumentation, the role of science in the development of policy instruments, and the political rationale that gets enacted in policy programs. It asks such questions as: What market instruments are developed when states change their health care policies toward market -based governance systems? How does economics play a role in this? And as a consequence, what values get enacted in these governance arrangements? Elsewhere we have shown how the iconic story on the construction of the market for strawberries in the Sologne region of France, as told by Marie-France Garcia-Parpet (1986, 2007) and retold by Callon (1999), is likely to overstate the agential strength of market devices and economic agents due to a failure "to situate the counselor in a wider range of practices that may have been crucial to allowing this Sologne strawberry market to emerge" (Zuiderent-Jerak 2015: 150). But another critique has also surfaced in response to the tendency by some STS scholars to overstate the agency of devices and economic actors. And this brings us to the second strand of valuation studies literature that draws inspiration from economic sociology.

Authors within this sub-field of sociology (e.g. Beckert and Aspers 2011; Fourcade 2011; Lamont 2012) have argued that focusing on the specific role of economists and market devices leaves differences across geopolitical sites of valuation unaddressed. Just as Callon's retelling of the strawberry market may be seen as iconic for the STS-inspired emphasis on devices, Marion Fourcade's thorough study of establishing the economic value of nature can be considered emblematic for studies of geopolitical comparison. Fourcade analyzes how France and the United States dealt differently with attaching a monetary value on

highly damaging oil spills and asks the question, "why, indeed, did the actual economic measure of 'nature' vary so much across these cases?" (Fourcade 2011: 1724). Comparing how dead seabirds, spoiled beaches, destroyed organisms, and damaged ecosystems resulted in hugely varying monetary valuation in her two sites, she finds that the focus on economics and market devices fails to acknowledge that "economic valuation processes are deeply bound up with other aspects of social organization—notably the law, politics, economic expertise, and environmental knowledge" (ibid.).

Based on the different cultural histories of dealing with attributing monetary value to intangibles in France and the United States, Fourcade argues that economic methods and devices for the valuation of public goods are themselves "the product of very specific social processes that are of great relevance to the 'performed' outcome itself" (ibid.: 1725). The critique by sociologists of economic valuation like Fourcade therefore is that, in answering the question as to what makes valuation practices, STS scholars classically confuse explanans and explanandum: presenting economists and market devices as explanation for market development, STS-inspired valuation studies fails to notice how the specific actions by economists and their devices themselves are in need of explaining. According to scholars within the sociology of economic valuation, studying economists and their devices as explanandum is best done through comparative analysis across both space and time as this helps to show how economists and devices are embedded in the social arrangements that in fact produce them. Summarizing this critique, Fourcade concludes her argument as follows

The new techniques did "reassemble the social" all right in ways that were not foreseeable (Latour 2005). Yet ultimately the outcome does resemble the point of departure: the natural sensibility performed in each country remains, by and large, historically consistent ... Legal, economic, and scientific institutions, each following their own logic, still managed to hold together while changing at the same time, doing this in a manner that was neither planned nor a priori determined (indeed the process seen from up close is amazingly chaotic) but still coherent enough that the reproduction of natural sensibilities in each case appears to have been overdetermined from every side. Maybe it is this ineffable sense of coherence and overdetermination that we call "culture." (2011: 1770)

On the one hand the thorough case and argument presented by Fourcade are quite convincing and resonate with some of our own critiques of the focus on devices and economists within the social studies of markets (see e.g. Zuiderent-Jerak 2009; Zuiderent-Jerak et al. 2015; see also MacKenzie and Millo 2003). However, presenting a return to institutional logics and cultural determinants as a "next step"

to redress some of the excessive agency ascribed to devices by some STS scholars does resemble something of a "one step up and two steps back" scholarly move. It brings us back to precisely those factors that those STS scholars tried to move away from and that are in fact beyond the scope of empirical scrutiny: they are "ineffable", after all except, perhaps, for an economic sociologist who is able to present them as explanans through the scholarly technique of comparative policy analysis. The response from those STS scholars therefore also seems fairly easy to predict: resorting to "culture" and "social processes" may easily be written off as the same capital confusion of presenting as explanations which sociologists should try to explain. That 'solution' would be seen as little less than practicing "sociology of the social" (Latour 2005), even though its proponents may present themselves as studying the process of "reassembling the social". Such inversions of explanans and explanandum, ad infinitum can hardly be considered generative of anything other than the reproduction of the split between an economic sociological focus on culture and an STS focus on devices; a split that may not lead to much more than quibbles between Culture and Device as in the opening act of this paper, or between their respective "experts". To explore a different potential for valuation studies, we would now like to turn to our study of the development of a market for hospital care in the Netherlands.

Governing Hospital Care through a Health Care Market with Solidarity E/Insured

Over the past decades, many European countries have reformed (parts of) the public sector with the espoused aim of controlling rising costs in this sector, especially in health care. In 2006, as one of the first countries in the EU the Netherlands introduced a market-based governance arrangement for hospital care in the form of the Health Insurance Act (*Zorgverzekeringswet*), and with this replaced the system of supply regulation that was in place until then. This Act introduced a manda-tory private insurance scheme for all Dutch citizens, based on the idea of managed or regulated⁴ competition as developed by health economist Alain Enthoven. It stimulates competition between health insurers, health providers, and health users, with a more prominent role for insurance companies to allocate

⁴ Both terms are used equally throughout different publications and seem to point to the same theoretical concepts. Enthoven consequently uses the term 'managed' competition; in recent years this term seems to have replaced the term 'regulated' competition.

means⁵ (see e.g. Brouwer et al. 2006; Enthoven 2006; Enthoven and Van de Ven 2007; Schut and Van de Ven 2005; Van der Grinten and Kasdorp 1999; Van Hout and Putters 2004). One of the main elements of regulated competition is that insurance companies are given the task of competitive purchasing of high-quality, low-cost health care products on behalf of their insured. They are expected to do this through selective contracting of hospitals. This contrasts with the previous system where patients could decide, together with their referring general practitioner, which hospital to go to. Citizens are expected to choose the insurance company they find does the job of selective contracting in the best way. To avoid adverse selection by insurance companies—that is, cherry picking clients that are expected to have low health costs—insurance companies have an obligation to accept every aspiring client who chooses their insurance package.

In 2001, the Dutch government managed to push through the reform plans quite easily with the presentation of a blueprint for a market-based health insurance system. This should come as a surprise, as this apparently smooth reform decision followed three decades of much political opposition about system change and failed policy proposals. This seemingly rapid alteration invites the scholarly question of understanding how this quite profound policy change was possible. Moreover, with many eyes set on the developments of the Dutch health care sector at large, it raised questions about the kind of market that was created: would the market solution indeed prove a solution for a sector in which conflicting demands—equity, quality, and affordability—all need to be cared for? And more specifically, how could competing health insurers be kept from the tempting market strategy of selecting healthier customers?

Given this concern, one specific economic tool, the risk adjustment system (RAS) gained a prominent place in a market that was to be competitive without compromising solidarity. This article is based on a qualitative case study design in which we reconstruct the development and consequences of the RAS based on interviews and documents, and publication analysis. We chose this qualitative design as it allows for an in-depth study of the process of developing policy instruments and the role of scientific knowledge within it, as proposed by Lascoumes

⁵ This becomes noticeable in a new responsibility of insurance companies to allocate means and to deliver high quality care within a mandatory insurance scheme where consumers have the freedom to choose level of coverage. The Act furthermore consists of the installation of a Health Authority and Inspection Authority, and new contracts and laws that should secure open information exchange and free entrance for providers to the health care market (Enthoven, 2006; Enthoven et al., 2007; Schut and Van de Ven, 2005).

and Le Gales (2007) and Callon (1998); but also because it allows us to address some of our own findings which we could not reconcile with the work of these authors. It also allowed us to study the development of the RAS over an extensive period of time. The RAS was initially seen as forming the heart of the health insurance market, as it was to ensure solidarity, and it was developed by a range of powerful societal actors. The development phase of the case study covered the periods 1999 to 2007 and focused on the development of this system and the way in which the market for health insurance became shaped within this instrument. In total 15 semi-structured interviews with key actors in health economics were conducted between 2004 and 2007, and extensive analysis was performed on relevant documents.6 The later use of the system and the action it afforded over time was studied by analyzing op-ed articles by some of the respondents and by studying political action based on policy documents by the Dutch minister of health.

The current marketization of the Dutch health care sector builds upon a trend of economization of the sector that according to some started with the introduction of the Sickness Fund Act (Ziekenfondsbesluit) in 1941, which provided national coverage but also rendered health care calculable as a part of national economics (Van Egmond and Bal 2011). Kasdorp (2004) describes the interpretation of health care in terms of proportion of GNP (gross national product) as an economization of health care. Others see the growing attention of the government to the role of the market as a problem solver during the 1990s as a main form of economization (Van Hout and Putters 2004), when the notion of total control of society had lost the better part of its appeal. In this, the Dutch government emulated discussions in the USA under Reagan and in the UK under Thatcher about the future of the steering role of the government and the extent of the government's tasks (see e.g. Kasdorp 2004; Kickert 2000; Pierson 1994, 2004; Walsh 1995). In 1987 a government white paper⁷ on the future of the Dutch health care system—the Dekker Report—showed the first signs of this New Public Management movement for health care. The content of this policy document was accompanied by a linguistic economization

⁶ For example minutes of meetings of the research groups and with scientific and policy groups, email correspondence, reports, and literature on health economics and health policy.

⁷ The chairman of the Dekker committee came from the business community—he was a former CEO of the Philips Company. Two other seats were taken by experts in economics. In the 1980s this was an unparalleled event for the health care sector where chairmen and seats tended to be chosen from people coming from the policy field itself.

with the introduction of general economic language to describe health care. Words that were previously solely associated with economics, such as "clients" and "care products", made previously commonly used terms such as "patients" and "care as a process" appear old-fashioned (Van Hout and Putters 2004: 120). More importantly, these instances of economization of health care enabled health care to become part of the economic debate in general, and more specifically to be thought of and talked about in terms of markets and competition (see e.g. Kickert 2000; Walsh 1995).

Moreover, the adoption of this specific economic view on health care was paralleled by the emergence of health economics as a separate scientific discipline. However, the evolution of health care from a sector to an economization of health care and currently a marketization of health care does not self-evidently follow from these developments, nor is it enabled by the political tide alone. It is enacted also by the emerging role of health economics in developing a specific economic theory for health care and by making tools for constituting policy change toward regulated competition in health care, both in educating people on the specific economic theory for health care, and by building this theory into policy tools. This is where we will now turn.

Health Economics as an Emerging Actor

The emergence of health economics as a single discipline with strong links to policy making is a trend that has been seen throughout many industrialized countries from the 1970s onwards (see e.g. Hunter 1997; Pierson 1994). As for instance Ashmore et al. (1989: 15) and Croxson (1998) show for the UK in their respective studies, health economics professionalized and gained political influence in the UK in the late 1970s. Likewise, in the early 1980s health economics became institutionalized when two Dutch universities—Maastricht University and Erasmus University Rotterdam—undertook the initiative to develop a curriculum in health care economics and management. Maastricht University set up a new chair in health economics situated in the medical department, and in 1982, the Institute of Health Policy and Management (iBMG) was established at the Erasmus University in Rotterdam. Whereas Maastricht developed a public health oriented curriculum, the iBMG offered an interdisciplinary curriculum based on economics, sociology, law, and public administration. Moreover, in 1983 the Dutch-Flemish Health Economics Association was founded. Since 1996, a growing number of health economists have attended the international Health Economics Association (iHEA) conferences (co)organized by the Dutch-Flemish Health Economics Association (Rutten 2004). From the 1990s onward, a number of Dutch hand-books on economics and health care issues appeared, as well as publications in newly founded scientific journals on health economics and related subjects.⁸ Thus, over twenty years health economics has grown into an institutionalized and respected scientific discipline.

In this expanding discipline, the development of an economic language for health care paralleled the development of a new theory for a Dutch market for health care, based on Enthoven's theory of managed competition in health care. One of the founders of the iBMG for example had spent time as a visiting research associate at the RAND Corporation in California where he became acquainted with the theory of managed competition for health care. This was based on the work of Enthoven and drew upon earlier work by Kenneth Arrow (interview Van de Ven, April 25, 2006), and developed this theory for the Dutch state of affairs.

This theory on managed competition in health care has been taught to iBMG students since the 1980s. Since then, health economists have educated an increasing number of students on health economics and managed competition (Moen 1989: 63). The iBMG currently employs about 90 health economists as well as a significant number of health policy scientists and health sociologists, and educates an increasing number of students each year. Consequently, the iBMG and its graduates have been actively involved in discussions concerning the market idea as a workable system for the governance of public health care and in the development, use, and distribution of economic theories regarding competition in health care.

The consequences of the increased legitimacy of health economics in discussing and shaping the Dutch practice of regulated competition is shown through an influential "manifesto" (iBMG 2002). In this report the Rotterdam-based health economists firmly explained what policy elements (or policy instruments) were, in their view, still needed to create a fair market in the health care sector. Here, health economists present themselves as "speaking truth to power", as independent scientists. However, more often the influence health economists have on policy remains rather invisible, for example by appearing mostly in the references in government white papers, or as members of scientific committees that advise policy makers. A good example of the apparently distanced but essential role is the involvement of iBMG health economists as independent scientific experts for the evaluation of the health insurance and the care gratuity laws

⁸ For example the *Journal of Health Economics* published by Elsevier since 1982. The first international *Handbook of Health Economics* by Cuyler and Newhouse was published only in 2005.

(ZonMw 2009). The complexity of the new health insurance system, developed by health economists, by that time required academically trained health economists to evaluate its effects. Naturally, the health economists were chosen as independent experts to provide the evaluation with the necessary objectivity. However, with their evaluation and advice these experts did influence *a posteriori* health policy and the shaping of the health insurance sector.

Building a Device for Managing Solidarity: The Risk Adjustment System

The political possibility of competition in health care started with the availability of the (aforementioned) theory of a market that ensured solidarity and which was developed by health economists. The active engagement of economists with governance arrangements for health care is, however, also visible in other ways besides theory development, health economics education, and evaluating current policy. Health economists also developed several policy instruments to create a regulated market that would facilitate selective contracting of hospitals by insurance companies without those companies selecting more profitable and discouraging more expensive clients. Such cherry picking, better known as adverse selection in health economics terms, would jeopardize solidarity and needed to be prevented not just through ethical principles but especially through market infrastructures.

As mentioned, the theory of managed competition was introduced in the Netherlands by health economists Van de Ven, Rutten, and Van Vliet. Many of their articles published in leading (Dutch) journals on economics, statistics, and health care in the early 1980s laid out a blueprint for a market-based system that would ensure solidarity in health care (see e.g. Rutten and Van de Ven 1985; Van de Ven 1985). They argued that health care markets differed from other markets, such as the market for jogging shoes—or cars—according to economists (Arrow 1963; Enthoven 1988, 2006), because of the many uncertain factors in this market.⁹ Price mechanisms that regulate "normal" markets therefore supposedly play a minor role in the healthcare market (Arrow 1963; Enthoven 1988; Lapré 2004). In economic theory, these uncertain conditions and lack of effective price mechanisms effectuate a higher consumption in health care—an effect known as moral hazard or government failure. Moreover, health

⁹ Uncertain factors are for example fluctuations in demand for health care as well as the amount and length of health care needed; other uncertain factors are unexpected technological and demographic developments that influence demand in health care (see for example Arrow 1963; Enthoven 1988; Lapré 2004).

markets also suffer from market failure because: (1) health providers and health insurers have conflicting interests toward health demand and consumption; and (2) doctors are at the same time agents, both for patients and for themselves, while health insurers have to provide good services and make a profit. This mechanism is enhanced by an information asymmetry between patients, doctors, and insurance companies, with the latter trying to avoid contracts with ill persons and the former trying to get a free ride (Arrow 1963; Enthoven 1988; Schut 2003). However, this market failure can, according to economic theory, be controlled by building specific tools to control the behavior of the actors involved in order to secure solidarity. In this way managed competition is an instrument that controls both market failure—quality and accessibility of health care—and government failure—the (in)efficiency and (un)affordability—in health care. Therefore, it could function well to safeguard the politically desired solidarity of the Dutch health system; a remarkable achievement, as it combined marketization with solidarity, two concepts that are usually considered to be in opposition.

At the heart of this fair market lies the tool of risk adjustment. The current Dutch RAS was developed in the 1990s by health economists from the iBMG, the Dutch Ministry of Health, the Association of Dutch Health Insurers (Zorgverzekeraars Nederland (ZN)), and the Dutch Healthcare Insurance Board (College voor Zorgverzekeraars (CVZ)) in collaboration with a range of research institutes. One of its key components is a fund that is filled by employers and the government by means of the Health Insurance Act. The budget of health insurance companies consists largely of reimbursement from the fund and is complemented by individual premium payments from the insured. The functions of the fund are twofold. First, as an insurance scheme for insurance companies, it settles a large part of the financial differences between insurance companies caused by uneven distribution of predictable costs of medical expenses. In this way, it prevents insurance companies from the potentially negative financial consequences of (accidentally) insuring an unequally high number of people that claim medical expenses in comparison to clients of other insurance companies (Netherlands Bureau for Economic Policy Analysis (CPB) 2006; Schut 2003).

Until 2012, the fund adjusted for risk selection at two points in time; prior to the start of the year (*ex-ante*), and adjustments made after the year was over to (partly) compensate for losses in that year (*ex-post*). The fund is also used by insurance companies to set the prices of the insurance schemes for the following year. With these interlinked functions (financial adjustments and price setting), the fund

"ideally safeguards solidarity in the health insurance market, and protects consumers against adverse risk selection by insurance companies and insurance companies against moral hazard by consumers", according to health economist Van Vliet (interview, 29 May, 2006). The fund therefore has to both enable insurers to act as competitive market actors, selectively contracting hospitals that deliver high-quality care at low cost, and preclude insurers from taking the easier route of adverse selection, leading to profit-maximization through attracting the more profitable clients for their insurance schemes.

Because it brings together opposing behavior of involved actors, the fund is a complex calculative device. It is built upon health indicators in the Netherlands that constitute the main reasons for an individual's health care demand. At the start, in 1993, the risk assessment fund took only two indicators for health use into account: age and gender, as these accounted for 95 percent of the shortages in insurance funds (interview Van Vliet, 29 May, 2006). In later years, the risk adjustment fund was refined by the indicators "region", "medicine use", "diagnosis", and "means of income" (Douven 2005; Van Kleef et al. 2007; interview Van Vliet, 29 May, 2006). Together these indicators add up to about one hundred health indicator groups that determine one's (future) need for medical services and the costs involved in these services. These indicators are based on aggregated medical information taken from many sources such as health insurance companies, health care providers, and related umbrella organizations, health care related non-governmental organizations (NGOs), and Statistics Netherlands. Data are collected from insurance companies, which, according to the international classification of diseases (ICD) coding system, deliver about 170 codes. A committee of health care experts supports the health economists at the iBMG, and critically assesses the codes that represent chronic illnesses. This procedure delivers consented information that is detailed and highly aggregated. However, the refined, and thus more complex, fund controls insurance companies better than the simple fund because insurance companies' claims are subjected to more detailed demands; a claim has to be more precise in its description to receive approval. This should contribute to more fairness as a result.

Ideally, the fund should also function as an incentive for insurance companies to work more efficiently, since profits should come from care that is both of high quality and of low cost. However, this is only the likely route for insurers if the losses due to population differences are fully compensated by the RAS. And in spite of many attempts to improve this system, health economists still consider this complex RAS

creates a calculative device for the health care market that enables involved actors to talk about *and* act upon health behavior in terms of

Construction of an RAS indicator: Future health care use

risks, while simultaneously attempting to limit market failure.

But even further detailing of ex-ante risk adjustment leaves some problems unaddressed. A careful analysis of the indicator for "future health care use" reveals, for example, that this indicator is established indirectly, unlike the indicators age and gender. Let us explain: the common way to establish future use of health care is to look at the "current diagnosis" given by doctors to patients. However, it is not immediately obvious how to measure "diagnoses." For example, diagnoses can be measured based on visits to the GP, but can also be measured in other ways based on admissions to a hospital. They can also be based on information from the insurance companies who pay the bills during or after treatment, or on the discharge letter from the hospital after the disease has been treated (interview Van Vliet, 29 May, 2006); Van Kleef et al. 2007). Each option delivers different information. Currently, the data are collected from information about reimbursed diagnoses retained from insurance companies. However, not all diagnoses represent the true illness, and often a diagnosis cannot be given, or is given after treatment just to give it a name or a place in a registration system (Berg 1997; Jerak-Zuiderent and Bal 2011).

The introduction of the Diagnose and Treatment Combinations (DTC) system (a system that resembles Diagnose Related Groups—see for a study of this system Zuiderent-Jerak et al. 2015) further obscures how diagnoses are measured, as DTCs demand translation of illnesses and treatments into well-defined terms, but per definition do not simplify the establishment of the indicator "future use of healthcare". Especially for non-illness related diagnoses, such as treatments needed because of suicide attempts, accidents, and violence, the DTC system delivers problems.

The RAS Sliding Out of Health Economists' Control

Given the imperfections of ex-ante risk adjustment, insurance companies that insure a large number of individuals on low income run the risk of having to pay more in reimbursements than could be expected based on the general population. In particular, companies that were previously public insurance companies may have over one million or more insured individuals with low socio-economic status. To alleviate this risk, the RAS until recently also consisted of an ex-post adjustment component. This component initially was introduced to compensate insurance companies for 97 percent of all profits and losses and used to be the core mechanism for risk adjustment, but through the development and improvement of the ex-ante risk adjustment component it has been reduced to 26 percent (Van de Ven 2011).

Risk adjustment afterwards (ex-post), is seen as undesirable by the state and by health economists alike, since it reduces the incentive for insurers to be efficient purchasers of care: some of their losses will be compensated afterwards anyway (Schut and de Wildt 2011). However, the government and health economists differed substantially about the way to address the problem of ex-post risk adjustment—a difference that came to the fore when insurance companies started to display less "regulated" market behavior, for example by acting on the health behavior of the insured individuals, by enlarging the co-payments, from average €150 per year in 2006 to an average of €350 per year per insured in 2014, and providing health improvement programs for their insured so that specific groups of patients could be categorized (and prioritized).

In 2010 one of the insurers launched a new brand of insurances that marketed itself exclusively to more highly educated clients. This brand has been growing over the years and has posed serious challenges for those striving for a health care market with solidarity ensured. The business model of this brand is that it tries to attract higher educated clients while discouraging lower educated clients. Through its name, Promovendum, and their logo that reads "insurance for graduates", it tries to appeal to those clients who passed through university education, and although they are obliged through the Health Insurance Act to accept all clients, they have ensured that their questionnaires for applying for their insurance gives potential clients quite a different impression. This insurer can charge a lower insurance premium based on the lower future health care use of their clients, while maximizing profits by not suffering the high and partly uncompensated costs for expensive patients.

Whereas health economists saw this development as an important reminder for the need to improve ex-ante risk adjustment and keep expost adjustment in place for now, the government wanted to charge ahead on the firmly established road to marketized health care and had quite a different strategy. In contrast to the first evaluation of the new governance arrangement, for which it commissioned the Rotterdam health economists (ZonMw 2009), it commissioned a second evaluation from the commercial consultancy firm PricewaterhouseCoopers (PwC) (Tweede Kamer 2011) and the third one from a similar market player, KPMG Plexus (KMPG Plexus 2014). The second evaluation drew radically different conclusions than the academic health economists had argued for: it stated that the ex-post risk adjustment needed to be abandoned since it was strongly reducing the incentive for insurance companies to efficiently purchase care; that the ex-ante risk adjustment could hardly be improved; and that the risk of adverse selection by insurers was small (as summarized in Van de Ven 2011). To the dismay of health economists, this evaluation no longer needed their advice and expertise, which made it necessary for them to turn to publishing op-ed articles on the pages of health economics and health policy maga-zines and journals and in national newspapers.

The third evaluation (in 2014) drew the conclusion that ex-anterisk adjustment is in need of refinement as the current situation leads to indirect risk selection by insurance companies (for example through supplementary insurances and through the emergence of exclusive labels for students and more highly educated people). Although insurance companies stay within the limits of the law, the risk KPMG Plexus foresaw is a deterioration of trust of the health user in health insurance companies (KPMG Plexus 2014), and thus in the system as a whole. Although the Minister of Health agreed with the recommendations of the research in her letter to Parliament of February 25, 2015, she did not prioritize the issue of improving the RAS. Instead she placed the issue on the research agenda for the following year (Tweede Kamer 2015).

Over time, the limited incentives for insurers to selectively contract hospital care due to the ex-post adjustment of losses started weighing more heavily than concerns about solidarity and the danger of risk selection of clients by insurers. This made competition a more important value for the Dutch minister of health in the making of the Dutch health care market than sticking to the economists' focus of improving risk adjustment to ensure fairness. These (new) different ways of thinking by politicians about health care as an economic market with competition, not fairness, as its main aim in turn (and ironically) marginalized the role of health economists and their market devices—those very economists and devices that had made the introduction of the health care market possible in the first instance. Showing sensitivity

to the dangers of adverse selection and moral hazard were still required to obtain political legitimacy for the market development. However, hiring a commercial party like PricewaterhouseCoopers (PwC) or KPMG Plexus to investigate the consequences of minimizing the RAS provided just that legitimacy while equally allowing for new political arguments to include other aims besides solidarity into the policy debate, and to steer policy from its restrictive focus on solidarity toward a more competitively organized health care market. The cumbersome warnings by health economists, including their calls for improved ex-ante risk adjustment, could now be brushed aside as technocratic wishes by an interested party.

These later developments in the Dutch system of regulated competition show that health economists and the market devices they helped to develop by no means proved definitive for the construction of a market that ensured solidarity. But it would seem equally dissatisfying to claim that the good intentions of health economists have been sacrificed to "underlying" cultural, social, or political tendencies that made solidarity doomed to be sacrificed to competition from the start. All political action had initially been geared toward maintaining the long history within the Dutch health care system, and in Dutch health policy, of caring for fair distribution and equal access to public goods within a welfare culture of solidarity. And yet, the presence of certain market arrangements made it possible to move away politically from such a focus on solidarity and to favor competition instead. This makes it a case well worth taking back to the discussion within valuation studies on the question of what makes a valuation practice, and to see what alternative may be emerging to the circular movements of presenting devices or culture as explanans or explanandum.

Conclusions: The Dynamic Intertwinement of Culture and Devices in the Study of Valuation

In this article, we have investigated the case of an unexpected shift in policy reform in Dutch health care, from a long and persistent focus on solidarity, to favoring competition within market arrangements that were also built to ensure solidarity following policy reform. Asking the question as to what shapes valuation practices we started our study by focusing on the role of economic science in developing market devices. The notion of the performativity of economics did initially seem to offer a suitable way out of a technical or instrumental perception of the role of science in society when analyzing the development of markets for public goods. However, it also became clear that the acting space of health economics and their market devices was becoming quite restricted over time. Market devices therefore turned out to be

partly unsuccessful in enacting solidarity, at least when one takes into account the tripling of own risk payments and the largely unnoticed increase in risk selection by health insurance companies. But the shift toward competition cannot simply be explained by resorting to "culture" either, as the Netherlands has a long-standing policy commitment to solidarity within welfare arrangements for health care. So where Fourcade focused in her study on establishing the economic value of nature, concluding that the outcome resembled the point of departure, the puzzle we face in our study is precisely the opposite: how to understand economic valuation practices of which ultimately the outcome does *not* resemble the point of departure?

Some possible explanations from previous STS-inspired work do not seem to quite hold up: we would not feel comfortable in qualifying what happened in the Dutch health care market case as an instance of "counterperformativity", where the "practical use of an aspect of economics make[s] economic processes less like their depiction by economics" (MacKenzie 2007: 55), since that would still ascribe special agential status to the economic theories and devices, whereas those seemed precisely to *lose* agential strength over time. And yet, the presence of economic theory and market devices to our mind was crucial for the shift to occur.

The changes in the Dutch health care system from a supply regulation system toward a system of regulated competition would have been unthinkable within a welfare state like the Netherlands, had it not been for the RAS, which promised the commensurability of marketized health care and a health case system ensuring solidarity. Right from the moment of introduction, this system framed clients and insurers as protected from each other's bad behavior, preventing it from becoming a market that would suffer from the evils of adverse selection and moral hazard, thereby turning the competitive health care market into a market that ensures solidarity. In that sense, initially the policy change could surely be seen as partly depending on the success of health economics in performing the theory of regulated competition through solidarity-market-devices.

However, these developments in the Dutch health care system over time contributed to different ways of thinking about this market arrangement and the perceived importance of solidarity. Now that at least *some* form of solidarity was built into the health care market, the problem for politicians had shifted to the fact that insurers were hesitant to purchase care competitively as they could suffer severe reputational damage while any profits would be minimized by the RAS. The resultant policy shift toward less-than-regulated competition through the cancellation of ex-post risk adjustment is hard to imagine

within the Dutch health care system, which for many years was dominated by a strong commitment to solidarity. The promise of the very notion of "regulated competition" would be that competition and solidarity would be united in a health care markets governance arrangement. Over time, however, the "regulated" part of the notion became less important than the "competition" part and the notions once again proved to be at odds with each other, while the political and policy debate shifted toward favoring the latter over the former. Such a shift however became possible by long-term developments of sliding valuations from solidarity as the prominent aim to competition as the prominent aim—and importantly, this shift only occurred in the political debate once the system of regulated competition had been introduced with devices that promised that competition and solidarity would not be at odds. Without that promise and without the initial development of the RAS, strengthening competition in health care governance at the expense of solidarity may, we feel, have been equal to political suicide for many political parties involved in the introduction of the Health Insurance Act.

This leads us to conclude that, although our work resonates with the critical reading of the performativity thesis as presented by Fourcade, this reading needs to contribute to a more empirically detailed study of how valuations evolve over time. Thereby, notions like "culture" or "institutional logics" do not become ineffable explanations that are extraneous to the empirical study of valuation practices, but become a central part of the phenomena under study. So rather than focusing on how social processes and culture ensure that market valuations ultimately resemble the point of departure, we would like to include how political, social, and cultural processes may well change over time, partly *because* of the economic devices that make markets. Work in valuation studies allotting devices and social processes a less predictable role in the analysis of valuation studies benefits by bypassing that sticky "social–technical" divide that orders the sociological scholarly debate in rather repetitive ways.

The stakes of such a shift in focus are substantial, we claim. Theoretically, it would seem crucial to prevent that an emerging and creative field like valuation studies merely ends up reproducing age-old deterministic debates about whether technology drives cultures or culture drives technologies (cf. Misa 1994). Critique of such determinism and its overly static understanding of culture has been voiced most clearly by Harald Garfinkel through his classic notion of the "cultural dope". Garfinkel's critique was that much of sociology is guilty of producing the misleading character of "the man-in-the-sociologist's-society who produces the stable features of the society by

acting in compliance with preestablished and legitimate alternatives of action that the common culture pro-vides" (1967: 68). Although it would be an overly critical reading of much of economic sociology to say that studying how valuation practices ultimately resemble the point of (cultural) departure equals reproducing "cultural dopes", Garfinkel's critique surely points to the risk that valuation studies runs by embracing an "ineffable" and static notion of culture. A similar reminder may however be appropriate regarding the focus on devices as an explanans, which has dominated STS contributions to valuation studies. Such a warning can take the shape of what we, paraphrasing Garfinkel, may call the "technical dope". This equally misleading figure resembles "the man-in-STS-scholar's-society who produces the stable features of a valuation practice by acting in compliance with pre-established and legitimate alternatives of action that market devices provide"; and although once again it would be an unfair reading to criticize work on market devices as producing "technical dopes", such critique again points to the risk of embracing an overly static notion of devices and of their agential strength. Inversely, our analysis can also be read—somewhat more cynically—as methodological strategy advice for scholars who are clear about what side of the fence they are sitting on: if you want to stress the importance of devices, do a short-term in-depth case study; for strengthening the importance of culture, carry out an international comparative study, making sure not to compare cases from what could be depicted as the same culture.

Leaving such cynicism aside, studying the dynamic intertwinement between devices and market cultures may well be hugely consequential for what public values become to mean over time. Therefore, a more dynamic study of the role of devices and culture in valuation practices could provide an antidote to the illusion that solidarity in governance arrangements could be assured through market devices or cultures of solidarity alone. This may well give valuations of solidarity a fairer chance as well as preventing those repetitive quibbles between culture and device. Although, whether they will be able to resist...

Culture: "So here you see it's you who failed! Without devices, what is 'fair'?!"

Device: "Well how you'd think I'd ever beat The Culture of The Market Square?!"

Culture: "Now don't blame me; the ineffable!

How could an abstraction be to blame?!"

Device: "Well, how mere materiality?!

Welfare's demise bears Culture's name!"

Culture: "With risk assessment poorly built You gave way to pure politics!"

Device: ...

Culture: "Device? ... Device?!"

Device: "Sorry Culture,

I really don't have time for this.

I have market cultures to make."

Culture: "Get back here!

That's not how I made you!"

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Grappling with the Economy of Enrichment

Luc Boltanski and Arnaud Esquerre (in conversation with Fabian Muniesa)

Abstract

In a conversation with Fabian Muniesa from the board of editors of *Valuation Studies*, Luc Boltanski and Arnaud Esquerre unravelled a few of the distinguishing features of their new work on the sociology of valuation. Combining an updated view on the pragmatics of justification and a more recent preoccupation with the problem of prices, their proposal appears as both a suitable contribution and a timely challenge to current threads in valuation studies. It also interacts in a stimulating fashion with their concomitant analysis of the political atmosphere in France, and more widely of the shift to identity that so vividly informs the critique of capitalism today.

Fabian Muniesa (FM):

Value is a trending topic in the social sciences today, with countless developments in the sociology of valuation regimes, valuation devices, valuation controversies and valuation struggles. What would be your prime diagnosis of this pattern?

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Luc Boltanski (LB):

The preoccupation with value goes hand in hand with a sense of crisis in valuation, a sense that has certainly been precipitated by the global financial crisis of the late 2000s and by the many commentaries, critiques and interpretations that unfolded. The preoccupation is often controlled, within that context, by a problematic tension between some kind of value that would be spurious and some other kind of value that would be sound, as in the contrast often drawn between what has been termed "casino finance" on the one hand and the "real economy" on the other. This tension is of course a source of disorientation, a disorientation that parallels the difficulties the sociology of valuation is frequently stuck with, trapped as it often is between constructivism and realism, between the revelation of arbitrariness and the demonstration of a rationale.

The preoccupation with value is also prompted, we believe, by the recognition of the epochal shift to an "economy of enrichment", which is the term we suggest in order to refer to the forms of wealth creation that are based on an economic exploitation of the past, in the form of craft, heritage, tradition, identity or, more largely, culture. The idea of enrichment refers to the act of improving the value of something, but we should also understand it in its material connotation, as when we speak of the enrichment of mineral ore. France is an excellent example of an economy almost entirely oriented towards this model of worth, based on the enrichment of legacy and uniqueness.

Arnaud Esquerre (AE):

On a conceptual level, the sociological preoccupation with value today is also characterized by a shift from sociology of persons to sociology of things, with all that this entails in terms of attention to sensitive characteristics, material operations and linguistic repertoires. This shift of position certainly raises a number of challenges, a crucial one being the need to find new ways to approach the problem of difference and domination, and to approach this challenge from within valuation processes proper.

FM:

Your current investigation on the "economy of enrichment" runs parallel to your political critique of the mounting agenda of social nationalism in France. Is there a link?

¹ Part of this research is presented in French in Boltanski and Esquerre (2014a). A more complete book is currently in preparation.

LB:

The political atmosphere in France today is certainly characterized by a sense of revaluation of identities, values and attachments in general and of national identity in particular. This is quite clearly encapsulated in the renewal of the political discourse of the National Front under the leadership of Marine Le Pen² – but not in that alone. And our concern encompasses multiple forms of demands for true value, true people and true land. Is the sociological preoccupation with value assessing this situation critically? Or is it contributing to its development? This is obviously an open question, certainly a complicated concern on which we should keep a very attentive eye.

AE:

But our inquiry on the "economy of enrichment" is certainly not absorbed into these kinds of considerations. One thing is our concern for current political discourse in France. And another, quite different, thing is our investigation into how the economic value of something is determined, in the form of a price, when that element enters, for instance, the logic of a collection, which is for us a key form of the "economy of enrichment". The fact that those two problems seem to talk to each other is, in fact, the product of this inescapable ambiguity that the very notion of "value" does carry.

LB:

Yes, there is certainly something fuzzy about the notion of value, especially in the field of economic sociology in which this fuzziness is sometimes conscientiously cultivated. The price we pay for not dissipating that fuzziness is, precisely, that the crucial problem of prices is maintained in the dark.

FM:

Your project is in part precisely about redressing that tort. What do you make of value, then, in relation to prices?

LB:

We suffer from the legacy of the tradition of classical political economy, which basically consisted in developing a critique of prices on the grounds of something different that things would have, namely their value, the study of which would constitute the domain of economic science. Neoclassical economics abandoned to some extent this quest for the basis of value, but kept value alive, encapsulating it

² See Boltanski and Esquerre (2014b).

for instance in the machinery of utility, eventually in a philosophy of subjective preferences. Our position is different, and very simple. It is in fact a follow-up on the pragmatist position we have been developing in past work.³

The first step is to analyse things not in and by themselves but in the moment in which they change hands, a moment that we can very well consider as a "trial". The result of such trial is a price, which is a fact, expressed in the metrics of money. What is "value" here? Well, value is certainly something people involved in this trial sometimes refer to, but by no means always. So we therefore need to examine the pragmatic circumstances in which people invoke that notion. What do we discover? Value talk only happens in situations in which there is a problem with the price. The notion of value is used when there is a situation in which a price ought to be criticized or justified, for example in order to claim that the thing under consideration is overpriced or underpriced, i.e. that its "value" has been overestimated or underestimated. So what is the function of "value"? It is a justification of the price, plain and simple.

FM:

You define value as "a device for the justification of prices".4

LB:

Indeed. Evidently, when the justification process is led towards higher levels of generalization, this device can meet the orders of justification that Laurent Thévenot and I identified in our pragmatic sociology of common superior principles.⁵ But the "values" we dealt with there are shaped in disputes whose prime issue is justice. This is different from the case of the commercial transaction. The issue at stake here, if at all, is the justification for the price. And our standpoint is definitely not to start with value or values, but with prices as events that only sometimes would require an apparatus of justification.

FM:

That said, your earlier work on the so-called "economies of worth" has been insistently used in economic sociology in another manner, namely as an invitation to identify different "value regimes" that are invoked in the course of economic life, with several "values", and not only one, being translated or not, poorly or fairly, in market appraisal. Not quite the same take.

³ See especially Boltanski and Thévenot (2006); Boltanski and Chiapello (2005).

⁴ "Nous définirons la *valeur* comme un dispositif de *justification du prix*" (Boltanski and Esquerre 2014a, 21).

⁵ See again Boltanski and Thévenot (2006); also Boltanski (2012).

LB:

Sure. But the fact that we know that approach well (in part because we contributed to building it) puts us in a good position to divert from it and to understand its weaknesses.

AE:

In our present work we identify several forms of the "economy of enrichment". These certainly do not correspond to different "values" people would have. They rather correspond to different techniques of valuation, in the sense of different apparatuses that would provide the justification for prices with a set of notable characteristics, historically situated. One dominant form would be, for instance, the "collection form", which is essentially based on references to the past and, more precisely, to what we call the "memorial force" of things. Value narratives focused on traditions, genealogies, identities and pedigrees provide clear examples of that, from the collectable antique to the terroir vineyard. And it is true that sometimes these narratives might coincide with the political repertoire of national identity.

FM:

You clearly signal that in your observations on the current nationalist syndrome in France.⁶ "France", as a brand, clearly has to do with the preservation of a singular sense of identity: beautiful castles, complicated cheese, expensive bottles, things whose value runs the risk of being destroyed if plunged into a cosmopolitan cocktail. One may read there, perhaps implicitly, a connection between the marketing of French singularity as an economic model and the potential of national values, such as expressed in the notion of the "terroir".

AE:

That intuition is obviously there, but, as we said, this is not our prime analytical claim.

LB:

Indeed, the crux of our argument is rather on the issue of prices. It may be the case that the value of a bottle of wine is controlled by a narrative of land and custom, but what is of interest to us is that, for it to be fully part of this "collection form" of capitalism that we aim at delineating, it needs to refer to the past in a particular manner in order to justify a high price. The price question is the crucial one, but it is obscured by the value question.

⁶ See Boltanski and Esquerre (2014b).

FM:

You also suggest an important macroeconomic argument, which is that today the world economy seems to be leaning towards an economic order organized around the production of expensiveness.

AE:

The production and circulation of expensive objects is clearly related to the expansion of a globally narrow, but indeed quite populous, wealthy class. It is not only that the rich are getting richer and accordingly require, in order to thrive, a marketing of distinction and exclusivity. Expensive objects need stability and liquidity: their price should not decrease, rather increase steadily, and it should be possible to resell them easily. We look at the devices that allow fulfilling that twofold condition.

LB:

It could be argued that we are just looking at what has been called "post-industrial societies". But this is not the case. Our view is not that the industrial world is disappearing, quite the contrary. We observe an outstandingly important rise of the industrial world over the last thirty to forty years, with formerly non-industrial countries becoming industrial and with new forms of industrialization being developed in industrial countries, especially through computerization. The industrial world is alive and well, and industrial production is the main characteristic of our global economic world.

The internationalization of financial investment and the development of industrial delocalization have only fuelled the tendency towards greater inequality. The key shift, we think, is from an industrial world focused on the production of standard goods to a sustained emphasis on the production of singularized goods, more centrally targeted at the rich and more clearly disconnected from any "trickle-down economics" kind of justification. Our chief analytical point is to establish the extent to which this translates into different forms of classifying objects, of arguing about their value, their value understood, as we said, as the justification for the price. And there are certainly a number of ways of doing that. When we talk, for example, about a "collection form" in capitalism we refer to a particular style of valuation that is relevant for the interpretation of expensiveness.

FM:

Our readers would love a neat example.

LB:

Paul only needs a car to go once a week to the supermarket and he thinks that a second-hand car will do. He knows that Pierre has an

old, run-down car stored in his garage. "How much?" he asks. "Well, about 30,000 euro", Pierre replies. "What? But it's forty years old!" Paul retorts, surprised. "It is a Renault Gordini", Pierre clarifies, adding that collectors are on the lookout for such a gem. Paul did not have control of the narrative that could rightly be used in order to criticize the price. He saw in the car merely an affordable means of transportation for a drive to the supermarket once a week and whose price could be assessed through a simple rule: the older the cheaper.

But here the "collection form" clearly wins. This is a problem of types of equivalences and the classification of goods. And this is our task: to map a system of equivalences that would not focus on the function or nature of objects, but rather on the ways and manners in which their price is justified. And from that viewpoint a Mercedes and a razor can very well be of the same kind, at some point. As they change hands and circulate in markets, objects can very well travel from one form to another, as Pierre's Renault Gordini, which can only become an expensive object once plunged in a particular "economy of enrichment" that emphasizes "memorial force".

FM:

Interestingly enough, there is an element of critique of capitalism and globalization in the narratives of the "collection form": preserving a sense of truthfulness and authenticity, protecting it from the impersonal reign of standardization, praising the love of vintage and the attachment to roots, demonstrating the fairness of expensiveness and the perils of low cost.

AE:

The economy of authenticity that is at work in, say, the terroir phenomenon indeed requires, in order just to make sense, the development of the "collection form". The terroir of course provides an illuminating case for the study of the conflation of an economic activity and a political discourse. Resisting homogeneity, replicability and disaffection are requisite conditions merely in order for terroir products to sell. Why is a Laguiole knife more expensive than a comparable knife, if not because of a reference to the town of Laguiole as the unique environment that nurtures know-how and authenticity?

FM:

And here is where the political dimension enters.

AE:

Indeed. When you have an entire economic order that is controlled by reference to the past, the question then is, how is this reference achieved? And, as we know, in order for a reference to the past to

work, recourse to fiction is almost inevitably required. How is the past written and rewritten? If we ask which values we cling to, the answer is evidently determined by this writing of the past.

FM:

We end up again with the emerging connection between your interest in the "economy of enrichment" and your interest in the pragmatics of political critique.

LB:

Of course, these transformations are intimately linked to the transformations of the critique of capitalism, especially of its crisis in the late 1980s and subsequent reconstruction in the early 2000s.⁷ What we inherit from these transformations, to put it in a nutshell, is a critique aimed at what has been often called neoliberalism and which concentrates on the denunciation of a series of things that have to do with displacement and speed: the praise of global exchange, the acceleration of the pace of life, the absence of limits to economic conduct, the sense of reckless frenzy, the dissolution of recognizable identities.

But this focus, which sometimes wears the traits of fantasy, fuels a most remarkable transition from a critique of neoliberalism to a critique of liberalism, and opens from the Left a space for political discourse that is more and more articulated by the Right, in particular in its most extremist guise. In France, this articulation is most skilfully provided by the ideological work of Marine Le Pen, which exemplifies the crystallization of the template which today most widely serves the critique of capitalism, and which is the opposition between the rootless and the rooted.

FM:

From which follows a preoccupation with the praise for identity as a crucial ingredient of both the critique of capitalism and the dominant economic order.

LB:

And more to follow, as securing identities becomes perhaps the most crucial move of contemporary capitalistic order, which does not leave us short of contradictions.

⁷ See Boltanski and Chiapello (2005); Boltanski (2011).

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