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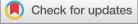
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Struggling for the Moral Market: Economic Knowledge, Diverse Markets, and Market Borders

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abstract

Focusing on the recent emergence of behavioral and experimental economics and its implications for the design and implementation of social policies, we demonstrate that geographies of marketization are not confined to the narrow study of the models of neoclassical economics. We structure our argument around what we perceive as key dimensions of marketization and their variegated geographies: First, we argue for renewed attention to the naturalization of abstract market knowledge and its methodological separation from real markets in the wake of the behavioral and experimental turn. We then turn to really existing markets, conceptualizing them as articulations of a variety of economic and social rationalities struggling over an apparent “moral market.” Third, we focus on the role of the non-human in marketization processes and discuss the work of market devices in making these market arrangements possible. In the fourth and final section we turn to the “human side” of marketization. Our argument is that market struggles connect with the formation of “quasi-subjects” that oscillate between attempts to reestablish autonomy and their dissolution in the disciplining webs of behavioral and experimental market devices. Throughout the text we illustrate our arguments on the so-called social impact bonds as a concrete example for the types of policy intervention informed by economic behaviorism and experimentalism.

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For a long time the market has been treated as a black box in the social sciences. This crucially includes mainstream economics where the market emerged as a natural and ahistorical matter of fact. The situation within political economy has not been all too different. Privileging the realm of production over the realm of exchange, classical political economy largely confined the market to rare appearances in the form of a particular market place or a geographic area. Positioning itself against the formalist understanding of the market as an ideal-type norm, Marxian political economy criticizes bourgeois notions of the market as ideological and relegates it to second place, being unintelligible without an understanding of immediate production processes. Whether in Marxian stripes or not, heterodox political economy, by and large, had little interest in analyzing the market beyond sweeping debates of the destructive consequences of the market ideology in the form of *runaway* market forces, a position that also informs much of the contemporary neoliberalization and globalization critique.

This situation has changed. Renewed attention to the market has been a pluralist affair, economic sociology, for instance, seeing the emergence of an embedded or coordinated market paradigm (see White 2002; Beckert 2009), pragmatist convention theory (e.g., Boltanski and Thévenot 2006), or the engagement with markets from a science and technology studies (STS) perspective (e.g., Callon 1998). Of course, political economy widely understood did not stand still either. While arguably still privileging the realm of accumulation, regulation theory provided a welcome first step. But it has been mainly the ongoing revival of Polanyian thought that has rekindled the interest in markets and market exchange within political economy (e.g., Peck 2013).

Economic geography is a good example for these developments. There has been a fledgling interest in social network approaches to markets (see, for instance, Grabher 2004). But more comprehensive contributions come from other traditions. On the one hand, this concerns attempts to establish a Polanyian approach in the discipline as part of the wider plea toward pluralism and openness that underwrites geographical political economy more generally (see Peck and Theodore 2007; Barnes and Sheppard 2010; Sheppard 2011; Peck 2013). On the other hand, there is work that engages with

social studies of economization from a geographic perspective, or what Berndt and Boeckler have termed *geographies of marketization* (see Berndt and Boeckler 2009, 2012; Ouma, Boeckler, and Lindner 2013).

It is the latter, cultural economic perspective on markets that provides the conceptual basis of our article. In what follows, our main objective is, first, to address remaining shortcomings in this interdisciplinary literature. These concern above all a mechanical, narrow focus on the perfect market as defined by neoclassical economics and a sometimes cavalier treatment of questions of power and inequality. A second related aim is to think through in more detail what a geographic approach toward markets and marketization might entail.

Geographies of marketization are inspired by Science and Technology Studies (STS) and actor-network theory (ANT). In his application of these research programs to economic processes and behavior, Callon has suggested to approach the formation of economic entities as *agencements* (e.g., Callon 2007). This refers to the insight that markets and other economic entities are combinations of human beings and physical objects. In these constellations, equipment and infrastructure matter: they change the nature of the economic agent, of economic action, and thus of the entity in question (MacKenzie 2009). The term *agencement* conveys the idea of a (spatial) *assemblage* of heterogeneous elements that have been carefully *arranged*, as well as the notion of *agency*: sociotechnical assemblages endowed with the capacity to bring about agency, to act and to give meaning to action (Callon 2007; see also Cochoy 2018). Agency is therefore not limited to the individual conceptualized as being “bounded by the skin” (Hutchins 1995, 289). Cognitive and calculative processes are “distributed” in the sense that a given task is often performed not by a single unaided human being but by a “human-nonhuman working group” as the locus of agency (Bennett 2010, xvii). Emphasis is put on two types of key agents: things and science, or, to be more precise, market devices and economics, widely understood.

There are manifold elements that work together to equip concrete markets. At the end of the day, the precise arrangement of concrete markets depends on specific figurations of these *agencements*, objectifying goods, forming “qualculating” subjects and mapping spaces of encounter that organize market exchange with the help of the price mechanism in particular ways. It is important to emphasize that these performances are the result of iterative processes of reference: economic entities, such as markets, are conceived as effects of heterogeneous networks that appear to be stable and permanent but always remain incomplete and open to contestation (Mitchell 2014).

As we will illustrate in more detail below, such an approach is capable of shedding light into the particular ways in which concrete markets emerge and evolve, but also how they are always prone to failure and malfunction. But as any other theoretical perspective, the marketization approach has its limits. Forceful accounts of these shortcomings have been given by scholars who write from a political economy position, epitomized, for instance, by the more unforgiving early critiques from Miller (e.g., 2002), or Fine (e.g., 2003). More recently there has been a tendency toward more constructive debate, above all within economic geography. From such a position of sympathetic critique two points stand out that are important for the purpose of our article: The first concerns an overemphasis on the neoclassical perfect market as driven by atomized rational individuals and the absence of any coherent idea about the object of study in the marketization literature. Second, there is the long-standing criticism that finds fault with a perceived absence of questions of power and inequality. Both omissions have the effect of depoliticizing the question of the economy and run the danger of stabilizing the neoclassical market, thus playing into the hands of the

hegemonic orthodoxy (for more recent examples for these arguments see, for instance, Muellerleile 2013; Christophers 2014; Cohen 2017).

These are important questions that scholarly work informed by economization or marketization needs to take into account. In this article we develop a more systematic account of how a marketization approach can be sensitive toward these issues, including a more nuanced engagement with the varied geographies of marketization, another omission in the respective literature so far (but see Kear 2017). Rather than remaining on the terrain of the neoclassical market, we turn to the recent emergence of behavioral and experimental economics (BEE) as an apparent challenge to orthodox economic thinking and its increasing importance for the design and implementation of social policies both in the Global North and the Global South. With this shift of attention, we seek to demonstrate that a marketization approach is capable of doing more than simply reemphasizing the performative force of neoclassical economics and of adopting a one-sided view of marketization as a unidirectional expansion of the market logic. We take account of this shift through the lens of four key dimensions of marketization that structure the main part of the article.

First, we argue for renewed attention to the naturalization of abstract Market knowledge and its methodological separation from real markets in the wake of the behavioral and experimental turn. We then turn to really existing markets, conceptualizing them as articulations of a variety of economic and social rationalities struggling over an apparent moral market. Third, we focus on the role of the nonhuman in marketization processes and discuss the work of market devices in making these market arrangements possible. In doing so, we direct our attention to their active stabilizing role, being involved in boundary work both socially and geographically. In the fourth and final section we turn to the human side of marketization. Our argument is that market struggles connect with the formation of “quasi-subjects” that oscillate between attempts to reestablish autonomy and their dissolution in the disciplining webs of behavioral and experimental markets devices.

Throughout the article we illustrate our arguments with empirical material from Wirth’s doctoral research on the so-called social impact bonds (SIBs) as a concrete example for the types of policy intervention informed by economic behaviorism and experimentalism. SIBs are a phenomenon within the growing field of social impact investing, arguably occupying a middle ground between traditional investments and funding activities that do not seek financial returns such as grant giving or philanthropy. The world’s first SIB was launched in September 2010 in Peterborough, UK, aiming to reduce recidivism among prisoners on short sentences. The Peterborough example was quickly emulated by a wealth of similar arrangements throughout the country. As of today, the UK hosts thirty-three SIBs.¹ As epicenter of SIB activity the UK represents by far the largest market for this funding mechanism globally. From there, the SIB policy template has traveled widely, first touching down in the US under the name of “payment-for-success” in 2012 and also in other English language countries (e.g., Australia), and then increasingly raising attention in mainland Europe (Höchstädter and Scheck 2015; Rangan and Chase 2015). It is estimated that there are currently more than sixty active or planned SIBs worldwide (Dear et al. 2016).

SIBs are performance-based contracts where “private investors provide the funding and are repaid later by the government (along with a potential profit) if the service meets agreed-on performance benchmarks” (Rangan and Chase 2015, 28). Their supposed innovation is derived from the inclusion of third-party investors who provide

¹ See Social Finance’s Impact Bond Global Database, <http://sibdatabase.socialfinance.org.uk>.

money to fund a social service program (e.g., reducing prison recidivism rates or youth unemployment in a certain locality). If the targets that have been agreed in the contract are met, then the investors receive payments from the government. Payments include a financial return in addition to initial costs that varies with the extent to which outcomes improve. If the offered service does not meet these outcomes, the investors lose their money (Barclay and Symons 2013). For governments this is attractive—it gets the operation of expensive social services off their books and creates at least the illusion that money is saved. As a manifestation of increasing private-sector involvement in social policy delivery, impact investing has a lot in common with phenomena such as corporate social responsibility, social enterprise, not-for-loss business, and corporate philanthropy, all to varying degrees regarded by insiders as “[sacrificing] economic profits in return for social impact” (Clyde and Karnani 2015, 20) and forming part of what has come to be known as social economy (see Amin 2009; for a detailed empirical analysis, see also Berndt and Wirth 2018).

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What is a market? On the one hand, images of specific, real-world markets come to mind: the market for a particular product, a particular marketplace. On the other hand, there are abstract notions of some core principles that define market exchange such as the law of demand and supply, price competition, rational choice, and so on. “Small m” markets as concrete sociospatial realizations contrast with “big M” Market as an ideal-type economic logic. The former have always been the more familiar terrain of (economic) geographers, given the interest in the discipline in spatial context and historical contingency.

From a marketization perspective, a key question is how a particular economic knowledge² is capable of performing market realities both at particular historical and spatial conjunctures and—crucially—how idealized market frames change over time. For a long time, the hegemonic knowledge was provided by a powerful family of scholarly thought: neoclassical economics and related approaches. This orthodox economic mainstream advanced the formal definition of the perfect market as a benchmark that allowed its proponents to draw a boundary against everything that lies beyond. A strict separation from the social and cultural is established, a nonmarket other that is excluded, or to use the language of the discipline, is externalized. Mainstream economics has never made a secret of the fact that it considers the market mechanism as superior and that it is desirable for the realm of the market to expand, to move the border further into the nonmarket terrain. As the burgeoning literature on land grabbing and accumulation by dispossession illustrates, market expansion has direct geographic qualities regularly implying shifting market frontiers and the commodification of people (i.e., labor) and nature (i.e., land). Underlying this expansionary thrust is a positive, harmonic view of marketization that does not acknowledge inequality beyond the fact that humans are endowed with different skills and capabilities.

The continuing importance of neoclassical market knowledge notwithstanding, it has become increasingly clear recently that these stylized ideas are no longer the unrivaled economic knowledge patterning our daily life. A key reason for this has been the recent financial crisis and the subsequent legitimization problem of neoclassical economics.

² We are grateful to an anonymous reviewer for alerting us to the role of knowledge production about markets (see also Pollard et al. 2009, 138).

As much as many mainstream economists may still believe, they are no longer the masters of their abstract models and are forced to readjust their frame. This provided a window of opportunity for strands of economic thought that have been successfully marginalized by the neoclassical mainstream: BEE.

Contemporary behavioral economic thinking builds on the findings put forward by cognitive psychologists Kahneman and Tversky in the 1970s (e.g., Tversky and Kahneman 1974), its conceptualization of human cognition being based on the assumption that mental processes can be divided “into two general categories depending on whether they operate automatically or in a controlled fashion” (Gawronski and Creighton 2013, 282). Since the 1980s this evolving class of so-called dual process theories has come to play an important role in psychology (Gawronski and Creighton 2013). In the variant put forward by Kahneman, the argument is that judgments can ideally be produced in two ways, “a rapid, associative, automatic, and effortless intuitive process (sometimes called System 1), and a slower, rule-governed, deliberate process (System 2)” (Kahneman 2002, 8). System 1 is automatic and unconscious. System 2 is rule based, rational, and explicit. It monitors system 1 and is able to rationalize ideas and feelings that were generated by system 1. It is also able to correct or replace erroneous intuitive judgments. However, this does not happen all the time. Since system 2 has its limits, system 1 often prevails, leading to intuitive and often erroneous judgements (Kahneman 2002).

While this model is in principle assumed to have universal traction, the world of the two cognitive systems becomes the world of different types of people when translated into the policy realm. On the one hand are the experts who are (almost) rational; on the other are ordinary people who are mainly steered by emotions, affect, and rules of thumb, and are locked in suboptimal outcomes. On the one hand are ideal type *econs*, modeled after the famous *homo oeconomicus*. On the other side are imperfect *humans*, driven by system 1, with system 2 only delivering spurious checks and balances (Thaler and Sunstein 2008; Kahneman 2011).

It is important to note that the gap between both perspectives is not nearly as wide as we are made to believe. Behavioral economists share the normative view that rational maximization is what people *should* do. Protagonists of behaviorism in economics continue to conceptualize individuals as means-ends-oriented, weakening the assumption that they are all-knowing and perfect calculators only to some extent. In so doing, the perfect rationality assumption reenters the stage through the backdoor. At the end of the day, therefore, the emerging new behavioral orthodoxy provides a means to stabilize the neoclassical project during turbulent times, translating it into a utopian yardstick to measure concrete economic behavior and a behavioral norm performing economic realities. In this vein BEE joins other amendments of the neoclassical project that mobilize institutions, conventions, cultural values or routines as “socio-cognitive prostheses that enable the (economic) formatting of individual behaviours” (Çalışkan and Callon 2009, 380). The idealized neoclassical market therefore continues to have a powerful presence in the seemingly new economic script.

With a view to the policy implications of all this, there is a crucial shift in emphasis: attention moves away from the market as an institutional arena to the individual, or better from market failure to the failing market subject (for recent contributions from geography, see, for instance, Langley and Leaver 2012; Jones, Pykett, and Whitehead 2013; Berndt 2015). This can be illustrated by our example of SIBs and impact investing. It is obvious that the market as conceptualized in standard economic theory does not provide the blueprint for performing these policy interventions. The conditions that SIBs and similar interventions codify as “social problems” are conceived of

as resulting from behavioral failures that have to be corrected. SIBs repeatedly mobilize behavioral economic thinking. An influential document published by McKinsey, for instance, celebrates SIBs as “especially well suited to scale interventions focused on behaviour change” (Callanan, Law, and Mendonca 2012, 12). Another example is the work of Nesta (National Endowment for Science, Technology and the Arts), a British private charity that was founded in 1997 as a public body with National Lottery money and was subsequently privatized in 2010. Nesta has published a number of to-do guidelines and manuals on impact investment and SIBs, and is financially involved in impact investment projects. In their various publications, Nesta representatives make frequent connections with behavioral economic thinking. Current CEO Geoff Mulgan, for instance, stresses the need to make social investment more concrete by incentivizing outcomes and by addressing people individually. Arguing that risks may also be “the result of behaviour and lifestyle choices,” he aims at “helping citizens to make sense of welfare, and sometimes nudging them to change their behaviour” (Mulgan 2016, 3, 8). The extent to which behavioral economics and SIBs are connected can also be demonstrated with the activities of the so-called UK Behavioural Insights Team 294 (BIT), an institution linked to the UK government that promotes the use of behavioral science in public policy. In the UK, a large number of SIBs are commissioned by the Department for Work and Pensions (DWP), which often teams up with BIT. SIB projects initiated by the DWP focus on labor market issues, revolving around issues of education and employability of young, vulnerable people with a low-income background and explicitly addressing issues such as behavior at school, truancy, or achieving educational qualification levels (Dear et al. 2016).

There are two ways in which the rise to prominence of the behavioral Market knowledge is relevant for economic geographers. First, there is the ubiquitous translation of behavioral economic thinking into the world of policy formulation and implementation at a global scale. A key step was the active adoption of behavioral insights across the political spectrum by the 2010 coalition government in the UK (Behavioural Insights Team) and the Obama administration (White House Social and Behavioral Sciences Team). Applications of behavioral economic thought to social policy subsequently spread across the English-language world (Pykett 2012). More recently, it touched down in mainland Europe, for instance, in France with the establishment of the *secrétariat général pour la modernisation de l'action publique* (SGMAP) charged with assisting the government with its mission to encourage “the public sector to take on board new ways of designing and pursuing public policy”³ and the establishment of *Nudge France* a platform with close ties to SGMAP. Aided by the work of policy centers at US universities that aim at disseminating experimental methods (e.g., J-PAL at the Massachusetts Institute of Technology) behavioral economic thought also traveled to countries in the Global South (see Berndt 2015). There is also an increasing interest from multinational organizations such as the OECD, the European Union, or the World Bank (Jones and Whitehead 2018). This is a breathtaking instance of knowledge mobility in only a short period of time that economic geographers are well advised to engage with.

Second and closely related to this, the emergence of a “new” economic orthodoxy poses challenges for those (economic) geographers who in one way or another believe in the possibility of a different world and seek to do more with their work than simply affirming the dominant economic order. This concerns the ultimately conformist nature of BEE, effectively restabilizing market-radical thinking and turning a blind eye to any

³ See <http://modernisation.gouv.fr/en/about-the-sgmap/who-we-are>.

notion of wider historical and spatial context, and the social complexities of human existence.

Diverse Markets and Marketization Struggles

Market knowledge and concrete markets belong together, a key question being how both materialize relationally. However, it is crucial in our view to acknowledge that concrete markets take form at the crossroads of a host of different logics and rationalities, among which “big M” Market—however defined—is only but one. As an *agencement*, concrete markets cannot be reduced to the Market as an institutional logic, much the same way as a concrete business firm is not only about hierarchical redistribution, or a community is not only about symmetric reciprocity. In short, the point is that economic entities are in principle diverse and have to be studied in their diversity (for a similar argument, see Birch and Siemiatycki 2016). Given that we are living in a time when market forces appear to be almost everywhere, it is more than justified to focus on the diverse ways in which markets are assembled and arranged.

With their focus on real markets and their emergence in variegated forms, heterodox political economic approaches share this interest in institutional diversity, analyzing economies as “hybrid, more-than-capitalist and variegated” (Peck 2013, 1552). What a marketization perspective offers to this literature is an emphasis on the *process* of market making in two ways: first, as a struggle between different economic and noneconomic logics that is never fully completed; and, second, as an interest in the precise way in which markets emerge as a result of the collaborative effort of humans and nonhumans.

It makes little sense from a marketization perspective to engage with the question of whether the (neoclassical) Market can ever exist in its pure form. Rather, the question is how far exactly ideal notions of the Market are capable of realizing themselves in their necessary articulation with other rationalities and valuations. What Callon and others were capable of showing is that orthodox economics aims at establishing the M/market division as a matter of fact, thereby reifying a particular Market knowledge. This is an ingenious sleight of hand: as long as the boundary between ideal Market and messy market realities is considered as pregiven and natural, there is a normative benchmark against which realities can be represented as incomplete, deficient, or pathological. This hides from view that this boundary only creates the illusion of a clearly demarcated and bounded terrain, veiling the relational and contested character of marketization.

However, the work of economics does not always go in one direction, unilaterally expanding the market realm. In our current late-neoliberal world, economic and political decision-makers at least at first sight seem to do exactly the opposite. They increasingly mobilize a moral social economy that violates long-standing boundaries. “Economists in the wild” all of a sudden happily tear down all the boundaries that they have long defended so vigorously. For some time now, there has been a tendency both within the scholarly literature and the ranks of political and economic decision-makers to mobilize the idea that markets can be actively utilized for socially beneficial ends. Such an understanding of the market as human and moral has assumed a strong presence in a variety of policy fields. And behavioral economics and evidence-based experimentalism provide important ideational foundations for this.

Let us briefly return to our example to illustrate this point. SIBs assume variable form as quasi-stable entities against a host of “others”, their identities emerging in ambivalent struggles about where to draw the line, about where the market starts and where it ends. The first other is the state. The state is variably represented in a typical

contradictory narrative as both overtly interventionist, and wasteful and inefficient. Another narrative position represents the state as largely absent. At first sight, this appears to be in contradiction to the above argument. However, both positions can be reconciled given that the state is criticized for distributing subsidies indiscriminately from a distance, without really being interested in the effects of these interventions. A further negative representation emphasizes the particular financial straightjacket governments increasingly find themselves in. In the case of the UK impact investing and SIB complex, this refers to the fiscal problems of British municipalities and the widespread assumption that there is no alternative to the austerity regime established by the national government (Berndt and Wirth 2018).

In both cases the role of the state is truly ambivalent, however. There is also a sense that the state is needed—but as a neoliberal guarantor of last resort that may cofinance and underwrite the suggested interventions rather than a direct player. This includes the role of new, parallel, semipublic structures involved in financing parts of the interventions. What we have here is certainly not a linear process in which the state is simply replaced by the market.

296 This is also because the “free market” is similarly found wanting and in need of a reformulation. In a creative adaptation of Adam Smith’s well-known phrase, there is repeated reference to what is termed invisible *heart* of markets (e.g., Social Impact Investment Taskforce 2014, our emphasis; see also Rosenman 2017). The market mechanism can arguably be mobilized for socially beneficial ends, turning an atomistic, asocial institution into a moral one. However, the market once again changes its face in dialogue with the third ideal other, associated variably with social community, reciprocity, or the nonprofit sector. Protagonists of impact investing and SIBs are at pains to keep a distance from more traditional philanthropy. The intention of doing good is not enough. Being illustrative of the arbitrariness of the ongoing positioning between market, state, and community, it is suddenly the market again that comes to the rescue, making sure that “doing good” is also efficient (Cohen 2013). In so doing, the market reemerges as the invisible hand, a hidden disciplinary whip making sure that social workers remain in touch with reality. Financial market practices are of particular importance in this context, not least because of the frequently stated intention of stakeholders to make SIBs and impact investment bigger. As is the case in related fields (e.g., sharing economy) upscaling is normally associated with a mainstreaming of the activities in question.

This illustrates how the social, moral market emerges at the crossroads of negative representations of the state as interventionist and wasteful, of the free market as destructive, and of the social community as traditional and obstructive. What gets obvious when looking more carefully is (1) that these ideal institutional arrangements assume chameleon-like form depending on what they are put in relation with, (2) that these contradictions and frictions often remain hidden in successful attempts to portray phenomena as being part of a capitalism with a human face, and (3) that a great deal of (re)ordering work is necessary to maintain this impression. In order to realize itself, abstract market thinking gets articulated with all sorts of alternative logics and conventions. At the same time, the performative power of the market logic crucially depends on purification and separation from those polluting forces. A constitutive market outside has to be created, populated by nonmarket agents that are represented as deviant and in need of help.

There are obvious connections here with the ongoing debate on the role of “more-than-capitalist” activities and provisioning logics in contemporary capitalism. In this debate different attempts to theorize this relation are put into dialogue

with each other, ranging from the stress on postcapitalist relations in the diverse economy project (Gibson-Graham 2008), the postcolonial conceptualization of capitalism as a complex of capitalist and noncapitalist economic practices in which dominance is expressed through difference (Sanyal 2007), or Tsing's (2015) related notion of "peri-capitalist" activities that exist simultaneously inside and outside capitalism.

Such an understanding of markets and other economic entities as contingent outcomes of the articulation of diverse economic and noneconomic logics contributes to the increasing awareness in the economic geography literature of the incomplete and variegated nature of markets. It is also a reminder that these articulations are a far cry from the harmonious view of market exchange underpinning much of the mainstream economic literature. At the same time, our acknowledgment of the exclusions and disarticulations that go along with market struggles is not the same as mechanically representing marketization as destructive. And neither does it amount to a romanticization of the mythical third sector, informing political attempts to instrumentalize community in the name of libertarian paternalism and social investment. It is by decentering and denaturalization in all these ways that a marketization perspective is capable of opening ways to contestation and resistance.

The contingency of the precise way in which different logics combine in a particular contextual setting also connects with geographic variation. There are two ways in which geography intervenes into the boundary struggles of marketization. In the first, more traditional sense, there is the translation into particular regional formations as global Market knowledge and its policy derivatives get entangled with local ways of doing things. The globally mobile behavioral and experimental market script, for instance, translates differently in the climate of austerity and the minimal social state of the UK and the more active state setting of countries such as France. According to a leading representative of the French SGMAP there are important differences in the way behavioral insights are implemented by the *Nudge France* platform and BIT, for instance (Francoise Waintrop, personal communication March 30, 2017). This is, second, connected to a marked downscaling of the spatial context of policy implementation. Mitchell and Sparke (2016, 743) recently highlighted how evidence-based impact investing replaces "national governance and territory" with "localized targets of investment."

But this is not the only way in which geography comes into play. Our social investment example also speaks, third, to more relational understandings of space (Massey 2005). Following Ong and Collier (2005), it is possible to conceptualize hegemonic Market knowledge as global form (*dispositif*) and concrete markets as global assemblages (or *agencements*). As *agencements* or assemblages, concrete markets are never simply local but entities that defy simple fixity/mobility and local/global dualisms (Ong and Collier 2005). Both SIBs and impact investment arrangements more generally are perfect examples for these tensions. In their own particular way they still mobilize market calculation as "ideal-typic global form" (Ong and Collier 2005, 13), disentangling subjects from their particular social and cultural contexts. Yet at the same time they articulate with other global rationalities, interacting with behavioral assumptions, experimental methods, neoliberal ideas of the state as interventionist and wasteful, or understandings of social community either as an obstacle to or a catalyst for change. In so doing market *agencements* can assume manifold form, emerging as an effect of heterogeneous configurations of political and economic rationalities and technologies of power that are irreducible to ideal economic rationalities. Rather than asserting an overarching general process (e.g., the formation of the behavioral and experimental script, the formulation of a particular social investment intervention) and seeing comparative cases as geographic variations of

this process, this allows us—to paraphrase Hart (2016)—to take seriously that each case (e.g., UK BIT, Nudge France) is constituted in relation to one another through practices in multiple and interconnected arenas of social policy formulation.

In sum, as *agencements*, concrete markets can be articulated in a number of ways. As particular sociospatial formations, they acquire their shape not because of the work of one individual element, as powerful as it may be, but because of the ways in which the elements performing a market arrangement are relationally organized together. This should not be misunderstood as a random process according to which markets can take any form. This poses the question of how exactly market arrangements are brought into being. It is to this aspect of marketization that we turn now.

Market Devices

Starting with the nonhuman side of Bennett’s “human–nonhuman working groups” (Bennett 2010, xvii), a wide spectrum of market devices intervenes in the framing of concrete markets and the formatting of exchange mechanisms and valuation processes 298 (see Muniesa, Millo, and Callon 2007; Cochoy 2018). These devices do their work in close relation with the particular economic knowledge mobilized. What is needed for a perfect market according to the long-dominant neoclassical script is an environment that allows the free play of supply and demand, which enables humans to act rationally according to their preferences, that is, free from distortions inhibiting the market’s god-like allocation mechanism. This translated into particular devices that were mobilized in order to achieve this state, either when correcting the failures of existing markets or when designing new ones. Examples would be the installation of a nonhuman Walrasian auctioneer as equilibrium-generating force (e.g., computerized pricing models), computers as “market-on-the-screen”, algorithmic evaluation tools driving digital platforms, or the introduction of per unit prices on supermarket shelves. All these devices are introduced to bring market realms closer to the neoclassical ideal.

The rise to prominence of behaviorism and experimentalism changed the situation. While continuing to believe in the desirability of the neoclassical market, the assumption is no longer that a perfect neoclassical market setting will emerge almost naturally whenever the conditions are right. Instead, the argument is that we have to accept our own imperfections and find ways to steer our behavior in the right direction, whether we realize this subtle manipulation or not. This is rationalized with the dual system model of human cognition introduced above. The market cannot be trusted to realize itself all on its own in the light of systematic behavioral anomalies. Operating mainly along deliberate system 2, the state as the market’s ultimate other is also incapable of reaching people in those instances when they operate only in the world of heuristics and rules of thumb. Against this, economic behaviorists claim to occupy the middle ground, suggesting with asymmetric or libertarian paternalism an institutional frame that is capable of intervening politically with as much state as necessary and as much free market as possible.

Accordingly, and notwithstanding overlaps in practice, the devices mobilized by the practitioners of economic behaviorism have a different quality. By way of simplification, it is possible to distinguish two closely intertwined classes of these devices. The first concerns nudges. Fully in line with the seemingly micro-/mesolevel script of libertarian paternalism, nudging is about the construction and management of incentive structures “that significantly [alter] the behavior of Humans, even though it would be ignored by Econs” (Thaler and Sunstein 2008, 9). Emphasis is on policies that are “smart”, that is, policies that help those who are less sophisticated cognitively “while

imposing little or no harm on those who are fully rational” (Camerer et al. 2003, 1212; see also Pykett 2012). Examples include framing, anchoring, simplification of products and procedures, and also commitment devices. These can take on concrete form such as cell-phone text-message reminders, or visits by experts that remind those subject to these policies to do certain things.

Second, there is the parallel connection of behavioral economics with experimental methods. Policies are implemented in an environment of ongoing experimentation in which learning is meant to take place within interventions and expected to feed back in a cycle of continuous adaptation. While these demands are attentive to a broad range of different research methods, interventions ultimately have to be based on hard facts about what works and what does not. Although measurement and quantification have a longer history in the political realm (Barry 2002), these practices have assumed new relevance following the behavioral turn in social policy delivery (Strassheim, Jung, and Korinek 2015). A crucial step has been the development of the randomized field experiment. Subjects are assigned randomly to either control or experimental groups, under the assumption that variations with regard to unidentified factors will be distributed evenly across the groups (Guala 2005). Although the underlying principle is the classical economic notion of *ceteris paribus*, randomization traveled into economics from the medical world. Here, the so-called randomized controlled trial (RCT) has long been an established procedure in the context of clinical investigation. Randomization plays a crucial role in the spread of behavioral thinking, the last fifteen years or so having seen a breathtaking spread of this method in a wide array of policy realms (see also Webber and Prouse 2018).

This is also true for our example of social impact investment. SIBs and impact investment more generally routinely work with nudges. Nesta CEO Mulgan (2016, 3) refers to a “new landscape of tools” as “new ‘operating systems’ for welfare” that help to orchestrate marketplaces. These include, among other things, predictive algorithms, technology platforms, digital tools, new options for organizing services such as block-chains and commitment devices. “[H]ow would we feel,” Mulgan (2016, 8) asks, “if the government sent SMS or equivalent messages to warn that we weren’t saving enough for our pensions; that our failure to maintain our skills threatened unemployment; that our children were too obese; or that we really should be volunteering more in our community?”

The conditions that SIBs and similar interventions frame as social problems are regularly conceived as resulting from behavioral failures that have to be corrected. In addition to the involvement of BIT in the UK, let us point to the case of the New York Rikers Island SIB. This project started in 2012 with the aim to prevent future recidivism among young prisoners. In order to reduce the number of future days spent in jail after their release, young prisoners could participate in an intervention called Adolescent Behavioral Learning Experience (ABLE), a program based on a cognitive behavioral therapy.

Second, the practical realization of SIBs has a lot to do with experimental methods and an almost insatiable thirst for quantitative evidence and measurement. It is the hope of being able to render social investment calculable for more mainstream investors that gives the drive toward evidence additional impetus. There is constant pressure to improve measurement methods, to use standardized evaluation and metric systems, and to utilize experiments as a means to evaluate the outcome of impact investment projects. Attempts to standardize the impact investing movement, for example, by establishing an impact investing rating agency (GIIRS), a standardized performance metric catalogue (IRIS), or a global impact investor network (GIIN), are indicative of

the preoccupation with technical questions of measurability and evidence (Narain et al. 2012; OECD 2015).

It seems that quantitative measurement and evaluation have become the new gold standard, finally providing the means to reconcile both the financial investment and the philanthropic side of the moral market (Rangan and Chase 2015). In many social impact bonds RCT designs are applied. Control groups may either be built from historical data or from individuals who do not receive a social service, that is, a “living control group” (Barclay and Symons 2013, 13). These experimental practices are lauded for their apparent superiority to more traditional ones, gaining their legitimacy from a modernizing, technocratic discourse celebrating rigor and objectivity (Shore and Wright 2015).

300 Nudges and experiments translate behavioral and experimental models, creating their particular realities in a process of continuous practical enactment. They inscribe themselves into the daily lives of policy recipients, in so doing playing a decisive role in reworking the world according to the scientific imaginations of experimental and behavioral economists. In collaboration with human agents, new markets are assembled that are capable of integrating elements that hitherto were only included marginally. And market devices play a crucial role in stabilizing these struggles over the boundaries between different economic and noneconomic logics. These boundaries separate “normal” from “abnormal” behavior, and those who receive a particular intervention from those who make up control groups.

These lines of difference assume additional force when they materialize spatially, when a geographic space is identified that somehow lies outside the realm of the market. This is also true for our example. The experts prescribing behavioral therapies and applying the respective market devices almost exclusively aim at problems “in place.” This starts with the subject itself and extends to its proximate social relations. Whenever context is admitted into the sealed world of nudges and experiments, this refers to the immediate social environment of the people in need, family and friends, workplace, local neighborhood. This includes the mobilization of translocal sociality that includes the strategic use of Facebook and other social media by case workers as a means to monitor and control the lives of individuals receiving a social service (Wirth 2018). Confronted with challenges that originate elsewhere, the underlying argument goes, we have to assume responsibility both for our own life and our immediate environment.

The scripts of market-based social policy interventions articulate “irrational” and “abnormal” behavior with imaginations of subjects in need and biographies in need of improvement. According to this logic it is these “deficiencies” that are responsible for poverty, health problems, or unemployment. This provides the legitimation for interventions that correct behavior and enable those subject to them to fit into the marketized world of human capital, lifelong learning, and biographical flexibility. This can be interpreted as an attempt to roll out the market and move the market boundary in addition to the selective blurring of the boundaries between the various institutional realms. Both moments—articulation with different logics (that is, the blurring of the market/nonmarket divide) and purification (that is, the reinscription of the separation between the market and its various others)—do not follow each other in a linear, logical fashion but are present in any moment in time. Berndt and Boeckler (2011) have labeled the geographic dimension of these boundary struggles as b/ordering, the market devices at the heart of this section performing the role of border guards policing these differences.

However, what appears as a clearly demarcated outside of a bounded terrain (market, capitalism) is in fact a constituent part of the inside. In this terrain that demarcates the market frontier, the noneconomic or nonmarket plays the role of a stranger inside the gate, the other that is neither fully inside nor outside. This creates the appearance of a strict separation of entities and realms, when in fact they are closely connected. B/ordering therefore reminds us that marketization is always a highly uneven process. This emphasis on the ambivalent, uneven, and incomplete character of marketization is crucial. Economization and marketization are never complete, breakdown and failure being as much part of its characteristics as construction and stabilization. It is the impossibility to fully contain and prevent these contradictions that necessitate measures to hide and veil, and it is these contradictions in turn that provide opportunities for alternative projects.

As long as these entanglements can be controlled and kept invisible, b/ordering and framing create the conditions for a particular marketization script to become mobile. Only then is it possible to entertain the illusion of almost frictionless mobility, “a technocratic replication fantasy—that both designs and outcomes are portable from place to place” (Peck 2011, 176). As long as the porosity of the boundaries and borders delimiting the realm of SIB/impact investing remains invisible—intervention vs. control groups, calculations of people and localities in need, localized risk assessments, the behaviorally deficient nonsocial individual—protagonists are able to render the phenomena at hand in a purely technical language, allowing them to maintain the illusion of unlimited applicability.

The Quasi-subjects of Marketization

Conceptualizing markets as sociotechnical *agencements* and marketization as a process that consequently involves the interplay of human and nonhuman agents is still often misunderstood as giving things undue priority over the human subject and colluding with attempts to get rid of human agency all together. But this is a misunderstanding. Both objects and subjects are treated as quasi-entities in these arrangements, that is, as constituted relationally as networks effects and as always being under construction and therefore never self-contained. The prominence given to the nonhuman side in the early ANT/STS-inspired literature may have more to do with the need to unsettle the modernist preoccupation with the autonomous subject than with attempts to get rid of the human. In his discussion of Beck’s second modernity thesis Latour (2003) summarized his understanding of “being modern” as a clever sleight of hand: It was only because they took themselves as being disentangled from the uncertainties of nature, the chains of history, or the obstinacy of society that humans were able to entangle themselves with “everything on earth and beyond,” allowing “them to do the exact opposite of what they were saying.” It would be strange indeed to give material objects a more active role (quasi-objects), while maintaining the ideal of the modern, self-contained subject (Latour 2003). From a marketization perspective, it makes more sense therefore to see the shift as being about a relatively more active role for the nonhuman and a corresponding relatively less active one for the human side in market actor networks. The process of subjectivation is a key moment of marketization and the human subject an important terrain on which to negotiate the contradictions discussed above.

At first sight, economic behaviorism and experimentalism seem to make this shift. The encounter of economic behaviorism with cognitive psychology resulted in a further rearticulation of the notion of economic man or woman. This includes the

gradual transformation of subjects in the Global North, and increasingly also in the Global South, into human capital under the gaze of sociotechnologies such as nudging, priming, or randomization. In the wake of this rearticulation the new *homo oeconomicus* no longer pretends to have autonomous sovereignty. Her agency is the relational effect of distributed cognitive and calculative processes.

Does this mean that the real world is populated by fleeting, boundless subjectivities? The stronger the challenge to the coveted ideal of the autonomous human subject, the stronger the impulse to redraw the line, to reestablish the old order. It is therefore hardly surprising that the ideal of the rational, sovereign *homo oeconomicus* is kept alive. This rebordering is never fully completed, but rather an ongoing controversy about how far to adjust the frame performing the autonomous individual agent (see Latour 2003). From a marketization perspective, therefore, behaviorism and experimentalism have given framing processes a new twist: nudges and randomized experiments intervening in strategic moments to frame possible actions.

This can be illustrated by the example of social impact investment and SIBs. When the recipients of the behavioral and experimental medicine are addressed, they are 302 represented in the logic informing behavioral economics as “customers who are risk averse and have ingrained habits” (Mair and Milligan 2012, 26). Framing the recipients of interventions as NEETs (Not in Employment, Education or Training; Yates and Payne 2006) and conceiving social problems as the result of individual failure, SIBs and impact investing establish a disciplinary regime that responsabilizes those subject to it, stimulating entrepreneurial behavior: “A reassertion of personal responsibility for risks over which individuals and families have some control, and incentivising pro-social actions,” as Mulgan (2016, 4) has it. And help is provided in two steps: First, in diagnosing systematic deviations from perfect rationality, behavioral economics shifts the site of policy intervention from the institutional setting (market) to the individual human being (market subject). Second, these anomalies are framed as an exclusively technical problem that is amendable to interventions framed in a logic of behavioral engineering. The recipients of policy interventions are imagined as “capital to themselves”, human capital waiting to be extracted with the seemingly benevolent help of behavioral engineers. In a characteristic dual logic, it is the reduction of social humans with a diversity of needs into incentivized entrepreneurial individuals that makes it possible to aggregate them into a faceless mass of people in need that can be calculated and represented in abstract numbers, in so doing turning them into attractive speculative assets that generate financial profit.

It is easy to see how the libertarian paternalism prescribed by the advocates of the behavioral turn fits into the policy frames characterizing roll-out neoliberalism such as the Third Way (Peck and Tickell 2002). According to these scripts, human beings are neither considered as populating some larger social class, as was the case in the heyday of the welfare state, nor as rational autonomous individuals, as postulated by mainstream economics. Instead they are addressed as moral subjects with the obligation to take responsibility for themselves and their lives (Rose 2000). In so doing, the emergence of a reformulated behaviorism and the methodological challenge of evidence-based experimentalism accompanying it constitute a further step in an ongoing transformation process according to which subjects turn into human capital under the gaze of sociotechnologies such as evidence-based policy making and nudging.

At the same time, however, the behavioral and experimental turn also goes beyond rolling out. The rationale of government intervention advanced by behaviorism is not to repair the devastating social effects of marketization with new societal fixes. It is individual human behavior itself that governmental interventions address and shape.

Interventions aim at the minds of people; they become intimate by breaking nonrational practices and mental models and committing them to useful behavior. This can be interpreted as a reconsideration of humans as psychologically driven by unconscious forces and desires. Insofar as governments design evidence-based interventions that tackle individuals, one might wonder whether we are not witnessing the emergence of an additional neoliberal moment of rolling in (Berndt and Boeckler 2017; see also Jones, Pykett, and Whitehead 2013; Pykett, Jupp, and Smith 2017).

From a Foucauldian perspective, this may be interpreted as a return of disciplinary power. For those humans found wanting, “conduct of conduct” appears to be increasingly less about “behaving within a more or less open field of possibilities” and increasingly more about management, direction, and coercion (Foucault 1983, 220–21).

But the behavioral script does more than only addressing the ultimate targets of the interventions. It additionally changes the relation between the “clients” and those responsible for delivering the treatment in question, in doing so challenging and redefining their role and their own subjectivities. Regardless of their enormously diverse background, for instance, regarding experience with social services or the extent to which they embody a more traditional social work ethic, the particular logics driving the new policy model confront implementing actors with thinly veiled expectations framed in a language of problem solving, responsibility, and risk taking. Corresponding entrepreneurial values are transmitted via the mechanisms discussed above, that is, performance management, track records, outcome metrics, experimental evidence. Preliminary empirical research of UK examples confirms that those actors who have a social work background and a more traditional understanding of their role perceive this as a source of friction and strain (Wirth 2018).

Both recipients of behavioral interventions and the social workers responsible for delivering them are almost forced to calculate and rationalize. This holds for the latter in particular, given the extent to which the ultimate success of the particular policy experiment is measured with the outcome metrics, benchmarks, and milestones mentioned earlier. To be sure, the social agencies normally do not bear any immediate financial risk. But representatives are aware of the potential damage to their reputation should a particular social finance investor lose money because of missed outcome targets. It is because of this pressure that social workers look for ways to be in control, that is, adopting strategies to closely monitor the behavior of their clients in a paternalizing way. This includes active use of social media and a mixture of carrots and sticks, always with the aim to steer behavior in the desired way, or the de-risking practice of layering “clients” according to the perceived likelihood of failure (Wirth 2018).

There are two closely connected ways in which these processes can be interpreted as instances of b/ordering. The first concerns the insight that representations of behaviorally deficient subjects are spatialized. In the narratives of the case worker, irrational behavior is regularly situated in the private life of the clients, for instance, the home, the pub, or other places of consumption and leisure. At a closer look, however, the borders between places of rational and irrational behavior are porous, not least when case workers use the desire for leisurely consumption and enjoyment to lure clients into corrective programs and the disciplinary places connected to them. The second instance of b/ordering involves the subject itself and the acknowledgment that the quasi-subject of marketization is always a b/ordered subject. On the one hand, it almost dissolves in the entangled web of human and nonhuman agents that give rise to market *agencements*. In the case of our example this concerns, for instance, the discipline of outcome

metrics, social media, or de-risking exercises. It is interesting to note in this context that the clients and consumers of the interventions remain largely invisible both in the academic debate, and in the documents and reports that emanate from the industry. On the other hand, there are attempts to redraw the line, to reassure oneself of subjective agency against the outside world. Those attempts to remodernize can be observed both with the implementing social workers as well as the recipients of behavioral interventions.

Conclusion

We started our article with the observation that the market has made an astonishing comeback both in the social sciences more generally and within the subdiscipline of economic geography more particularly. Identifying in geographical political economy and geographies of marketization two strands of scholarly literature that drive this revival, we positioned ourselves in the latter, cultural economy perspective without negating the limits and weaknesses of such an approach. It has been our main aim to
304 develop a more systematic account of marketization by entering into a constructive dialogue with geographical political economy. Engaging with the rise of economic behaviorism and experimentalism, and its manifestation in social policy design and implementation, we put forward a number of conceptual dimensions for a more nuanced engagement with de/marketization that we think advance scholarly work in at least two ways.

First, while agreeing with those who point to the relational entanglements between ideal-type market models and real markets, we raised attention to the ongoing attempt by economists and economic practitioners to (re)naturalize this distinction. We illustrated the continuing urgency of this by analyzing the emergence of a seemingly new orthodoxy when thinking about economy and markets: BEE. Against stylized binary accounts we introduced a conceptualization of markets (or indeed any other economic entity) as diverse, that is, as articulations of a variety of economic and social rationalities that cannot be reduced to a market logic, however understood. Our example of social impact investment is a good example for how ideal understandings of market exchange and competition, state-driven redistribution, and reciprocal community relations are articulated in a process where each principle's limits are made visible in dialogue with the respective other. This also allows us to go beyond the idea of the economy as being encapsulated by the social (i.e., embeddedness) and to be more open to what exactly social patterning is about. This includes instances where the social becomes embedded in particular ideas about market and economy. In sum, such a perspective is always open to processes of marketization and demarketization at the same time. It does not start with pregiven distinctions between micro and macro, economic and social, market and society, but rather investigates the processes of dis/entanglement that bring these divisions about, in so doing temporally stabilizing and ordering a messy world.

Second, we turned to the *how* of marketization, focusing on the joint work of humans and nonhumans in making markets possible. We directed attention to the stabilizing force of market devices, being involved in boundary work both socially and geographically. And we sought to counter one-sided representations of social studies of economization as an approach overemphasizing the role of things and objects. Our argument here is that market struggles connect with the formation of quasi-subjects that oscillate between attempts to reestablish autonomy (remodernization) and their dissolution in the disciplining webs of behavioral nudges, metrics, and experimental evidence. It is the conceptualization of marketization as a

boundary struggle that allows us to be sensitive toward questions of inequalities and asymmetric power relations. This includes the acknowledgment of marketization as an inherently unequal process shot through with practices of de/valuation and exclusion/inclusion. Another aspect of this is our observation that we are always only dealing with the appearance of stability. Necessary ambivalences and “misfires” of marketization provide openings for alternative imaginations, including the possibility to advance alternatives, to engage in conscious attempts of “demarketization” and resistance.

It has been our intention throughout the preceding discussion to engage more directly with the geographies of marketization than has been the case in earlier contributions to the scholarly debate. Our main way to do this was by linking institutional struggles around de/marketization with b/ordering, highlighting how “everyday practices of value creation, devaluation, and exclusion (...) reproduce the uneven geographies of global capitalism” (Bair et al. 2013, 2546). Expressing itself at various moments in marketization processes, b/ordering is deeply implicated in the highly variegated local translation of Market knowledge. It intervenes in the production of global–local arrangements that defy simple fixity/mobility and local/global dualisms. B/ordering gives the work of market devices additional force by mapping market–nonmarket binaries into places that are represented as already belonging to and those that apparently still wait to be conquered by the rational whip of the Market. And it works at the level of the human subject, separating experts from humans and being an integral part of attempts to regain autonomy. It is in all these ways that a marketization perspective is capable of helping us to better understand the ambiguous formation of economic entities and to play a prominent role in the scholarly engagement with markets in the current late neoliberal times.

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