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Conference note

Classification Situations—A New Field of Research for Valuation Studies?

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Abstract

This conference note adds to recent discussions about the sociological implications of the spread of digital techniques for classifying market actors, specifically with regard to processes of social stratification. We first present some of the contributions to the conference "Classification Situations in Markets" and then discuss their implications for future research in general and the field of valuation studies in particular. We suggest three themes related to the conference that deserve further attention by students of valuation and related social processes: (a) the challenges posed by the rise of big data and algorithmic classifications to the study of classification and valuation; (b) the feedback loops of valuation regimes, in particular their consequences for conceptions of the self; and (c) the relation between classification situations and larger institutional settings, which implies a more explicitly comparative orientation.

Key words: classification; sociology of algorithms; big data; credit scoring; stratification

On May 6, 2015, the Mayor of New York City, Bill de Blasio, signed into law the *Stop Credit Discrimination in Employment Act* which prohibits employers to make employment and promotion decisions on the basis of job applicants' and current employees' consumer credit histories. When the law went into effect on September 3, 2015, an accompanying city-wide outreach campaign was launched to educate New Yorkers about their new rights and responsibilities. Comprising

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training sessions, street outreach walks, and brochures in no less than nine languages, the campaign's most visible feature were the large-scale advertisements posted in subway stations across the city. In huge letters, their tagline read "You are more than your credit score" or, in the Spanish version, "Tú vales más que tu historial de crédito" – "You are *worth* more than your credit history." Why would someone's credit score serve as a yardstick of individual worth in the first place? The city's public counter-valuation points to the emergence of a valuation regime which exploits the ever more abundant digital traces of our everyday lives to algorithmically sort and slot people into classificatory schemes. Marion Fourcade and Kieran Healy (2013) have suggested the succinct notion of "classification situations," a variation on the Weberian "class situation," to capture the far-reaching pervasiveness and consequences of this process.

Based on the tracking of past individual behavior and predictions of future outcomes, classification situations condition the access to economic and other resources, from health care and credit to employment and insurance. While this development is particularly pronounced in the United States, other parts of the world are already following suit or likely to do so. In this essay-cum-report, we want to add to this recent discussion about the sociological implications of the avalanche of digital numbers we are currently living through. In order to do so, we will first present some of the contributions to the conference "Classification Situations in Markets," held at Humboldt University of Berlin on June 17, 2015, and then discuss their implications for future research in general and the field of valuation studies in particular. We will suggest three themes related to the conference that deserve further attention by students of valuation and related social processes: (a) the challenges posed by the rise of big data and algorithmic classifications to the study of classification and valuation; (b) the feedback loops of valuation regimes, in particular their consequences for conceptions of the self; and (c) the relation between classification situations and larger institutional settings, which implies a more explicitly comparative orientation.

Classification Situations in Markets: New Technologies, New Inequalities?

Borrowing its title from Fourcade and Healy's (2013) article, the conference sought to illuminate how this new regime and its classificatory logic shape market activities and outcomes, regulate economic behavior, and distribute life chances. The speakers addressed these issues from two angles: the first focused on different conceptual approaches to classification more generally, such as their coordinating functions in markets as conceived by the French Economics of Conventions school (Rainer Diaz-Bone, University of Lucerne), their interactional dimension (Andreas Pettenkofer, University of Erfurt), as

well as their relationship to value systems (Anne Kruger and Martin Reinhart, Humboldt University of Berlin). The second angle was decidedly more empirical and analyzed the relationship between the new data infrastructure and contemporary classification practices in markets. In the following, we concentrate on the latter approach.[1]

Marion Fourcade (University of California, Berkeley) further developed the original argument about classification situations in her keynote address "Seeing Like a Market." Arguing that with the rise of actuarial algorithmic techniques, new classificatory regimes produce new forms of moralized inequality, Fourcade proposed a novel concept: *übercapital*. Extending the Bourdieusian inventory of capitals, *übercapital* is the product of individuals' trajectory and position in various scorings, categorizations, ratings, and gradings, and it is accumulated and operative across different social fields. The concept thus tries to capture the proliferation of algorithmic classifications in various settings of social life and their use in contexts for which they were not originally intended—as in the case of employers relying on credit scores to evaluate a job candidate against which the NYC *Stop Credit Discrimination* campaign is directed. With access to resources becoming increasingly dependent on *übercapital*, it becomes necessary, Fourcade contended, to orient one's behavior to the imperatives of the classifying principles: leave digital traces, go into debt and repay it, demonstrate your financial literacy, and so on. Being a citizen in the contemporary economy thus increasingly means being "traceable, tractable, and extractable," as Fourcade put it. "Seeing like a market," then, is seeing through the lens of scores, categories, and ratings that are based on individual behavior and produce stratifying outcomes. This perspective suggests understanding the unequal distribution of resources and life chances as the result of individual will rather than of structural conditions—and to make inequality, therefore, a moral phenomenon.

As the German prefix *über-* indicates, Fourcade and Healy regard the term as a form of meta-capital which transcends other forms. Its precise relation to the more traditional and usually analogue forms of capital, however, has not yet been fully elaborated. Does it, for instance, simply absorb economic capital—ultimately Bourdieu's own form of meta-capital (Bourdieu 1986)—or is there a more complex transformation process going on? Fourcade's likening of *übercapital* to the letter of introduction the traveling gentleman in early modern Europe carried with him to sustain his reputation even suggests that *übercapital* may just be the digitized form of symbolic capital. The

[1] We deliberately restrict our coverage of the conference here in order to focus on our argument. Please note that all contributions will appear, with additional papers by Eve Chiapello, Simone Schiller-Merkens, Jason Pridmore, and others, in 2017 in a special issue of *Historical Social Research* (Krenn forthcoming).

concept would therefore benefit from a more explicit positioning in relation to Bourdieu's own forms of capital. Moreover, while Fourcade made a strong empirical case for the offline effects of online behavior, indeed for the entanglements of the analogue and the digital, these transformation dynamics also require further conceptual work.

One crucial aspect here is how *übercapital* matters differently in different fields. In the economic field, *übercapital* does seem to be of increasing relevance. But what role does it play in, say, the political or scientific fields? While digital metrics such as the *h*- or *i*-citation indices from Google Scholar and elsewhere undoubtedly have an increasing impact on academic careers, they still are essentially digital renderings of the already dominant forms of capital within the field. Seen from this perspective, we may wonder whether *übercapital* should be considered a new, digital *state* of capital, in addition to the embodied, institutionalized, and objectified states, rather than a new *form* of capital, in parallel to cultural, social, and economic capital.

Fourcade's co-author Kieran Healy (Duke University) further elaborated on the new regime of moralized classification backed by algorithmic techniques. Healy presented data on how classification situations arising from credit rating scores connect to more familiar stratification patterns, particularly to the categorical inequalities of race, class, and gender. Developed in response to the 1974 Equal Credit Opportunity Act, these scores were initially considered a solution to group-based discrimination because they promised to measure only actual individual behavior rather than categorical affiliation (Hyman 2011: ch. 6). In fact, today's proponents of data-based metrics of individual worth argue on exactly the same grounds: from their perspective, these tools "provide detailed information about individuals, thereby reducing the temptation for decision makers to rely on group-based stereotypes" (Strahilevitz 2012: 64). Healy, however, argued that credit scores in particular disguise the structural conditions of individual behavior. The reasons why, for instance, racial differences in adverse credit events continue to persist *across* income distribution simply disappear. Instead, individualized credit scores suggest that *all* economic behavior should be interpreted as the result of personal choice—and thus as indicator of individual moral worth. Fourcade and Healy's emphasis on the moral underpinnings of measurement devices and procedures laid open the inseparability of valuation regimes and their socio-technical mediators.

As both Fourcade and Healy adumbrated and the Stop Credit Discrimination campaign claims, the stratifying consequences of algorithmic classifications are exacerbated when they become relevant for access to other social contexts. With an empirical focus on credit ratings, Akos Rona-Tas (UC San Diego) suggested in his talk the notion of "off-label use" to conceptualize this phenomenon. Borrowing the concept from pharmaceutical practice, Rona-Tas defined the "off-label use" of credit ratings—be they individual,

corporate, or sovereign—as their use in contexts other than the one for which they were originally produced. A key role here is played by data brokers such as ChoicePoint or Datalogix who collect and analyze consumer data to resell it to interested companies (Mui 2011; Beckett 2014). Illustrating his argument with examples from the insurance and home rental markets as well as from hiring practices, Rona-Tas identified two potentially harmful effects of off-label use: error propagation and enhanced performativity, that is, the tendency of models to self-validate through their use in the very processes they purport to only describe (see MacKenzie 2006: 15–25). First, when errors occur either in the data collected or the models applied to create a credit rating, off-label use further proliferates them into new situations. Second, the performativity of credit ratings results from their predictive and prescriptive qualities: a previous rating affects the next one, such as when low ratings result in harder loan conditions which, in turn, increase the likelihood of default. If used in multiple contexts, this effect amplifies so that credit ratings exert even further-reaching effects on individuals' life chances. For example, Equifax, one of the three major credit bureaus, has been using employment data to produce credit scores which were then used by employers to make employment decisions. These multiple feedback loops result in what Rona-Tas calls *turboperformativity*. This has potentially disastrous consequences for individuals who thus come to be caught in a cascade of negative classifications.

While Fourcade, Healy, and Rona-Tas focused on the consequences of the algorithmic classifications of big data, Sebastian Sevignani (Jena) focused on their production. He emphasized what differentiates the current avalanche of digital numbers from its analogue forerunner in the mid-nineteenth century (Hacking 1982, 1990): it is not so much the state but private corporations that started this avalanche. It therefore comes as no surprise that profit motives reign superior in the collecting and processing of data. Applying the Marxian concept of exploitation to the analysis of contemporary information markets, Sevignani contended that the content generated by web 2.0 users is appropriated and turned into profits by the owners of digital property. This "exploitation 2.0" works on the basis of a surveillance structure which allows organizations to systematically trace, store, and classify the information people produce online, from their social networks and commercial transactions to their travel routes and health data. Hence, Sevignani pointed to the blurring of the boundary between consumption and production, one of the key factors in the generation of classification situations (see, e.g., Thrift 2006). From this perspective, the prosumer becomes a paradigmatic figure of the contemporary digital economy (Ritzer 2015)—and epitomizes our complicity in the making of our own surveillance (Harcourt 2015).

Classifying and Valuing in a Digital Age. Some Perspectives for Further Research

The conference contributions exposed the moral underpinnings of contemporary actuarial techniques and the stratification dynamics they unleash. Joining in the debate on the construction of quality and actors in markets (Beckert and Aspers 2011), they thus pointed out the futility of a clear-cut distinction between value and values. If this rescinding of "Parson's Pact" (Stark 2009) is one of the constitutive elements in much of the recent interest in researching valuations, then classification situations provide ample material for the study of such processes, both opportunities and challenges. What are they?

There is, first, the practical authority of algorithms: their rules determine what we find on Google, which books are recommended on Amazon, and who will become our friend on Facebook. They determine how our medical prescription history matters for our access to health care, or whether seeking marriage counseling affects our creditworthiness (Duhigg 2009). Automated classifications thus increasingly constitute the basis of acts of valuation. But even more, in many contexts, valuation itself has become automated—it has become "mechanical" to use the term Theodor Porter (1995) has coined to describe a form of objectivity which differs from a discretionary, supposedly more subjective one in its insistence on automated rule-following. Indeed, many of the classificatory principles at the core of today's regime were explicitly designed to counteract the often discriminatory decision-making processes based on subjective judgment (Hyman 2011: ch. 6). Be it in housing, credit, insurance, or labor markets, applicants are increasingly pre-screened by software programs evaluating their life online from shopping behavior and search engine queries to their social networks and gym payments (boyd et al. 2015; Pasquale 2015: 33f)—and if these scores fall below a certain threshold, applicants are automatically excluded from consideration.

This mechanizing poses a challenge to pragmatist approaches to studying valuation. With its emphasis on creativity and contingency in moments of valuation, their methodological situationism (see, e.g., Hutter and Stark 2015) does not seem fully able to capture these algorithmitized routines of contemporary practices. Moreover, as the example of Amazon recommendations shows, even when there are situational opportunities for contingent and creative valuations, these situations are fundamentally pre-shaped by the preceding algorithmic sorting of choices. Moments of valuation, in other words, do not occur randomly. Rather, they arise from a complex meshing of behavioral pattern recognition and commercial interests. What is needed, therefore, is an even more explicit focus on the technical details of the algorithms governing today's classification and valuation practices. As Andrea Mennicken and Ebba Sjögren (2015) as well as others have

argued convincingly, critical accounting studies share many affinities with valuation studies. In their emphasis on the technical details of calculation and their "plasticity," they dig deep into the production of accounting numbers before these start to travel and lose their transparency. The same perspective needs to be taken when looking at algorithms—opening the black boxes of algorithms provides the key to understanding the opaque workings of contemporary data-based stratification dynamics. Google, the credit scoring company FICO, and others' secretive stance points to the politics of (in)visibility endemic to the "Black Box Society" (Pasquale 2015). A pronounced asymmetry is inscribed into it—while consumers are more and more approximating the (dystopian) ideal of a transparent citizen, the analytics by which usually private actors collect and process their digital traces remain opaque. More often than not, we simply do not know whether a certain Google query or the joining of a specific subreddit might affect our *übercapital*—and therefore our offline life chances. Bowker and Star (1999) have emphasized how invisibility increases the effectiveness of classifications from the perspective of the classifier. It is therefore not surprising that a program of critical algorithm studies faces huge obstacles. Most notably, the algorithm-producing companies are notoriously proprietary about their products. Arguably, getting access to the sites of algorithmic production might be one of the greatest challenges students of valuation face today.

As Rona-Tas showed in his talk on off-label use and the performativity of credit ratings, the feedback loops of algorithmic classifications and valuations constitute a second promising research object. In his analyses of the avalanche of printed numbers, Hacking (1982, 1990) suggests that the new classificatory schemes that emerged due to the availability of new population data "made up people." By this, he means that classifications are not mere representations but rather interventions: they change how people understand themselves and act. And according to Hacking, it is the quantitative, putatively objective categories that exert the strongest effects: as he polemically asks, "who had more effect on class consciousness, Marx or the authors of the official reports which created the classifications into which people came to recognize themselves?" (Hacking 1990: 3). Could Hacking's claim provide a useful guide for thinking about algorithmic classifications? Yes—and yet, at the same time, we need to be careful about not drawing premature historical parallels. One crucial difference certainly concerns the individualized nature of all types of scores as against the collectivizing categorizations of state censuses and similar enterprises. While we therefore might question whether something like a collective "classification consciousness" can possibly arise, the implicitly normative character of scores, ratings, and rankings makes them reactive (Espeland and Sauder 2007). The

emergence of new forms of credit expertise, from self-help groups[2] to advice books (see, e.g., Chen 2014) and counseling firms, indicates an increasing willingness to behavioral adjustments in order to comply with the assumed laws of *übercapital* accumulation.[3] By implication, scores, ratings, and rankings can be understood as tools that enable the "governing at a distance" (Miller and Rose 2008) of classified subjects.

We might go further and ask how the normative underpinnings of today's economy of classification affect not only people's behavior, but also their sense of self and assessments of individual moral worth (Lamont 2002). Again, credit scores provide a vivid example. In recent years, scholars have taken up Nietzsche's pointing out of the shared philological origins of the German terms for debt (*Schulden*) and guilt (*Schuld*) and have brought out the moral character of debt relationships (most prominently Graeber (2011) and Lazzarato (2012)). By virtue of their scientific aspirations, credit scores might add to this. If they bear not only on consumers' credit worthiness or capacity per se, but also—as the Fair Credit Reporting Act 1970 (§ 603) stipulates—on their "character, general reputation, personal characteristics, or mode of living," is this reflected in the classified's conceptualizations of their own and others' moral worth? Do they accept the basic scoring principles as just and fair? Fourcade and Healy (2013) claim that credit scoring practices suggest an individualized worldview according to which individual classification situations are the outcome of free individual choice. Does this vision of a well-deserved inequality permeate even to those who score low, and what are its consequences? This question reaches further than the mere reactivity argument outlined above: whereas behavioral adjustments might just be a rational strategy to increase one's chances in markets, it concerns the justification of inequality and beliefs about the relation between social order and individual responsibility. Do the lower classified feel guilt (*Schuld*) because they are bad debtors (*Schuldner*) as certified by their credit score? Fourcade and Healy (2013: 565–569) provide some evidence that the declassified indeed accept the contemporary credit regime as normal and even fair. If this holds true in more systematic future studies, the question arises what steps they undertake to better themselves. Put differently, what are the technologies of the classified self?

In its most dystopian form, the big data dragnet in which classified subjects find themselves resembles a Foucauldian power/knowledge network—there is no outside. When Janet Vertesi (2014), a sociologist

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[2] FICO itself runs a forum for consumers to ask for advice on how to improve their credit score. The irony is of course that the information left in these forums is then fed back into the production of FICO scores. See http://ficoforums.myfico.com.

[3] Given the required resources (time, money, knowledge), we are likely to observe a further interlocking of class and classification situation as only certain groups will be able to adequately react to their classifications.

at Princeton, tried to leave no digital traces of her pregnancy by avoiding non-cash transactions and any leaking of the news to Facebook and similar websites, she soon had to realize that this was close to impossible. When her husband tried to buy Amazon gift cards in cash with which they wanted buy a stroller, the store reported this suspicious activity to the authorities—the attempt to opt out was sanctioned as potentially criminal behavior. A more promising counter-conduct might be the browser extension TrackMeNot which aims to undermine dataveillance by its own means. Developed by New York University (NYU) professor Helen Nissenbaum, TrackMeNot obfuscates actual web searches by sending so many randomized queries to search engines that it becomes considerably harder to create a consistent user profile from the data (Pasquale 2015: 53). The question whether in addition to such micro-resistances, a collective political effort is imaginable refers us back to the possibility of a "classification consciousness." Could the explicitly individualizing nature of contemporary market classifications possibly make up not only people, but also *collective* actors?

As of yet, empirical research on classification situations remains focused almost exclusively on the United States (as does this essay). It is therefore imperative to expand our vision beyond the U.S. and learn more about the acceptance of algorithmic scorings, ratings, and rankings as valuation devices in other parts of the world. Is it that the U.S. is leading a development which sooner or later will also arrive in other parts of the world? Or will, for instance, stricter privacy laws in Europe reduce the salience of classification situations when compared to the U.S.? One key dimension here is certainly the state–market relation and its institutional varieties in different countries. In the U.S. new forms of state-market hybrids are emerging: so-called "fusion centers" bring together information collected by both government agencies and private actors and pertaining to security-related issues (Hoofnagle 2004). While the government faces stricter regulations as to what sorts of information it is legally allowed to *collect*, there are only few limits to what it can *buy* from private data brokers and subsequently process (Pasquale 2015: 21, 42–51). Thus, the American state is indeed more and more "seeing like a market."

And so might the Chinese state in the future. According to several reports, a "citizen score card" is currently in planning which tracks to what degree citizens behave in compliance with "socialist values" such as patriotism, respect for the elderly, a strong work ethic, and avoiding extravagant consumption. Those with low scores run the risk of unemployment, ostracism, and reduced access to financial and government services (Creemers 2016). The state thus redefines citizenship as a scored identity—one of the fundamental political prerogatives is formulated in terms of the classificatory techniques initially developed in consumer markets. One expert in China's new

media and internet field labels this scoring system "Amazon's consumer tracking with an Orwellian political twist" (Obbema et al. 2015). It is enabled by what the Oxford-based China specialist Rogier Creemers calls a "symbiotic relationship" between government and big internet companies like Alibaba or Baidu, which surpasses by far those found in western countries (ibid.). According to Creemers, control over the information produced online is developing into a key power resource within the Chinese party-state—big data can be turned into huge political profits (Creemers 2016).

Another promising perspective in a comparative vein relates to how different cultures of quantification can explain the varying importance of classification situations. Building on Theodore Porter's (1995) argument that quantification is a technology of persuasion and that numbers allow communication across (social) distances, we deem it a worthwhile project to analyze in depth the relationship between elite structure, diversity, and the authority attributed to algorithmically determined classifications. Given that the American origins of credit scores in anti-discrimination legislation neatly fall into line with Porter's argument, we might wonder whether under different social and political circumstances, valuations by numbers could develop an equally compelling persuasive power or not. In his history of the French and American understandings of intelligence since the early nineteenth century, John Carson (2007) traces how the two republics developed different approaches to determining individual merit. While the U.S. gradually embraced standardized IQ testing as the prime device to evaluate talent, the more complex notion of intelligence in France gave rise to a valuation regime which granted considerable discretion to expert judgment. Could we write a similar history of algorithmically created scores, ratings, and rankings as "measures of merit"? In Fourcade and Healy's terms, how and why does the importance of *übercapital* vary across different national spaces?

Conclusion

In this conference note, we tried to point out the consequences the contemporary avalanche of digital numbers and the emergence of "classification situations" have for valuation studies, in particular with regard to dynamics of social stratification. The rise of big data-driven algorithmic classifications, the feedback loops of valuation regimes, and the relation between classification situations and larger institutional settings ask for critical engagement and thorough inquiry.

While we may have overdramatized the radical novelty of a new algorithmic valuation regime, its political implications can hardly be underestimated. Its promise of indiscriminatory objectivity currently comes at the price of an obfuscating "Black Box Society" (Pasquale 2015). The *political* challenge at hand is therefore to make visible the algorithmic constitution of classifications and their uses. New York

City's Stop Credit Discrimination Campaign might represent a first step in this direction. We believe that research on classifications and valuations has an important contribution to make in this endeavor.

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