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Thematic Section:
Objectification, Measurement and Standardization

Edited by
Tord Larsen

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Thematic Section: Objectification, Measurement and Standardization

Introduction: "Objectification, Measurement and Standardization"

By Tord Larsen

The articles in this issue of *Culture Unbound* were presented at a multidisciplinary conference entitled "Objectification, Measurement and Standardization" held at the Norwegian University of Science and Technology (NTNU) in Trondheim, Norway, in January, 2012. It was organized by the Department of Social Anthropology, NTNU Social Research and the university's Globalization Program.

The three-day conference consisted of four sessions: "Numbers, Standards, Indicators" (the papers by Theodore Porter, Marte Giskeødegård and Haakon Aasprong in this issue); "The Emergence and Transformation of Entities and Categories" (the paper by Jens Røyrvik and Petter Almklov), "In Transition: The Category of the Economic" (the papers by Emil Røyrvik/Marianne Blom Brodersen and Maria Røhnebæk) and "Subjectivities and Subjectification" (the papers by Alexandra Hui and Nigel Rapport). Several disciplines including anthropology, geography, sociology, religious studies, history, music, economics and technology were represented at the conference. Some of the topics up for discussion concerned psychological design of muzak in shopping malls, oil industry and the domestication of nature, standardization and objectification of the landscape, the formation of religious subjects, New Public Management and the financial crisis, the mediatization of the swine flu, and standardization and the moral economy.

The conference marked both the continuation of something old and the beginning of something new: It was a continuation of the activities of the "standardization group" at NTNU which started giving seminars at the beginning of the 2000s. The conference *Globalization, Identity and Standardization* in 2005 was the highlight of the group's activity.

The conference in 2012 where these papers were presented also marked the beginning of an interdisciplinary and international project called The Cultural Logic of Facts and Figures: Objectification, Measurement and Standardization as Social Processes. The new project, financed by the Norwegian Research Council, is intended to break new ground, but it also continues work that began more than a decade ago, spawning doctoral and master's theses as well as scholarly papers.

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Some workshop participants and friends, from left to right: Christine Hassenstab, Alexandra Hui, Michael Blim, Tord Larsen, Theodore Porter, Evelyn Ruppert, Charles Briggs, Afia Afenah, Jason Sumich, Nigel Rapport.

The overall ambition of the conference and the project that sprang from it was to examine a number of contemporary modes of objectification, measurement and standardization to see how they constitute a cultural logic and shape the four main dimensions of social life:

-meaning/representation
-morality
-notions of thinghood
-notions of personhood

Modes of objectification – different ways of producing thinghood and thing-like entities like categories and classes – are part of the cultural "infrastructure" of any society. Social and cultural formations may be distinguished by their dominant modes of producing objecthood, and historical changes have generated a series of concepts designed to capture the defining characteristics of new modes of objectification: commodification (from Marx to Comaroff), reification (from Lukacs to Honneth), fetishization (from Marx/Freud to Zizek), simulation (Baudrillard), spectacle (Debord), autopoiesis (Luhmann, i.a.), rhizomes and assemblages (Deleuze and Guattari), ANT (Latour, Law), "thing theory" (from Heidegger to Brown and Latour/Weibel), competing notions of totalities, especially the contrast between organistic and mechanistic conceptions of totality (from Hegel to DeLanda). Concomitant with the successive series of concepts which have been devised to capture new modes of objectification, we have seen a series of "turns"

which testify to a multiplicity of objectifying agents and analytical approaches: the linguistic, aesthetic, performative, rhetorical, calculative and neo-naturalistic turns. One of the ambitions of the present project is to read these turns and contemporary modes of objectification as symptomatic of an emerging cultural logic which underlies them. ("Cultural logic" is an anthropological term given general currency by Jameson, 1991). Sahlins (1976) provides a classical model for this kind of analysis in his chapter "La Pensée Bourgeoise: Western Society as Culture"). We do not want to over-systematize these tendencies, but they do articulate in determinate ways, and their convergence needs to be analyzed more closely than is usually accomplished by the application of blanket terms like "neoliberalism". To investigate some of these tendencies in depth and to trace their interrelations, we have gathered a group of academics who would like to follow up their pioneering analyses of contemporary life and help bring about a new synthesis of recent developments like the new economic cosmologies, new object strategies in the arts, the branding of identities, the breakdown of dichotomies between inert things and agents, the simultaneous instrumentalization and subjectification of morality, the performative nature of identity work, the commercialization of emotional life and other contemporary phenomena.

These are some modes of contemporary objectification which demand both in-depth studies and integrative efforts:

-increased quantification and measurement of social life
-standardization undertaken by national and international organizations
-commensuration in all forms
-the rise of a culture of indicators
-financialization of the economy
-New Public Management
-"the audit society"
-cognitive and reflexive capitalism
-the expansion of medical diagnoses
-evidence-based medicine
-contemporary construction of scientific objects
-patenting and the management of intellectual property rights (including the safeguarding of traditional cultures)
-the mediatization of reality
-the return of religion
-branding, design and fashion, contemporary forms of celebrity and fame
-new object strategies in the arts, conceptual art and performance, musical sampling
-commodification and branding of identities, performativity and citationality
-objectification and "outsourcing" of emotional life

Some of these themes will be investigated in depth, but always with an integrative purpose in mind. It is our ambition to show that these modes of objectification converge and mold emerging patterns of meaning and morality, and bring new notions of thing- and personhood into being. It is through the study of these effects that we will be able to corroborate our view that objectifying technologies function as cultural premises and that they cohere in a cultural logic, in spite of

the diversity they display on the surface. An important part of the project will be to develop conceptual tools to trace the strands of this coherence.

The topics listed above enter into contemporary political debates about governmentality, management, financial upheaval, education, identity politics, moral reorientation, religious renewal and artistic innovation. In theorizing these matters, we hope to make a contribution to public discourse about such issues as well and to improve our understanding of cultural premises which shape contemporary thought, political strategies and institutional arrangements.

While all epochs and all cultures manifest dominant modes of objectification, some eras more than others display a passion for quantification. The 20th and the present centuries are in the grip of "the will to quantify", perhaps unparallelled since the Renaissance (Crosby 1997), the Enlightenment (Frängsmyr et al. 1990) and "the statistical 19th century". Quantification, measurement, standardization and the rise of a "culture of indicators" (Merry 2011) are not simply ways of organizing pre-given entities, but are performative and generative technologies. They create institutional objects, and there is a relationship between statistical systems and modes of governance, between numerical representation and regimes of control and dominance. Not only are numbers a form of representation (along with the forms of narrativity and visualization), but quantification, measurement and standardization give rise to forms of subjectivity and carry with them a range of normativities.

The project is divided into five thematic categories or sub projects:

1. Genealogies of quantifying technologies. Some of these helped produce the scientization of mental disease and the notions of person and morality consonant with that development (Theodore Porter); other statistical practices helped bring about the notion of "national economy" (Mary Poovey/Kevin Brine).

2. Michael Blim, Emil Røyrvik and Tian Sørhaug offer analyses of contemporary processes which Porter and Poovey/Brine have described historically. They all address, in different ways, "the calculative turn" and bring out the cultural logic which informs present day economics. This includes the normativity inherent in quantification technologies like standards (Christina Garsten).

3. The sub projects which examine the emergence of new entities: mediatization of biomedicine (Charles Briggs), transformations of the landscape (Kenneth Olwig) and the entifying strategies inherent in New Public Management (Petter Almklov).

4. Standardizing pressures in the arts which foster new cultures of listening (Alexandra Hui), movement (Kalpana Ram), and pictorial representation (Nigel Rapport) which in turn influence social life.

5. Contemporary cultural understandings of identity and subjectivity and their relationship to quantification (Lorenzo Canas Bottos), legal rhetoric and the transformation of "culture" from cognitive horizon to intellectual property (Rosemary Coombe), standardization and its effect on individuality (Nigel Rapport) and the changes in contemporary forms of communication and ethical discourse brought about by increased measurement and processes of reification/objectification/entification (Tord Larsen).

References

Crosby, Alfred (1997): *The Measure of Reality*, Cambridge: Cambridge University Press.

Frängsmyr, Tore, John L. Heliborn & Robin E. Rider (1990): *The Quantifying Spirit of the 18th Century*, Berkeley: University of California Press.

Jameson, Fredric (1991): *Postmodernism, or, the Cultural Logic of Late Capitalism*, Durham: Duke University Press.

Merry, Sally Engle (2011): "Measuring the World: Indicators, Human Rights and Global Governance", *Current Anthropology*, 52:3, 83-95.

Sahlins, Marshall (1976): *Culture and Practical Reason*, Chicago: University of Chicago Press.

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Funny Numbers

By Theodore M. Porter

Abstract

The struggle over cure rate measures in nineteenth-century asylums provides an exemplary instance of how, when used for official assessments of institutions, these numbers become sites of contestation. The evasion of goals and corruption of measures tends to make these numbers "funny" in the sense of becoming dishonest, while the mismatch between boring, technical appearances and cunning backstage manipulations supplies dark humor. The dangers are evident in recent efforts to decentralize the functions of governments and corporations using incentives based on quantified targets.

Keywords: Funny numbers, history of mental hospitals, history of statistics, standardization of statistics, statistics of mental illness, technicality, thin description

Introduction

The history of asylum statistics provides a field well befitting the topic of funny numbers, and not only because human sanity is thereby called into question. The normalization of the asylum as a place for housing the insane brought a huge expansion of these hospitals, and rapidly transformed them into the most quantitative of medical institutions. More even than prisons, they provided a model, not only for regulating and ordering these subject population, but also and perhaps mainly to indicate the level of need for such institutions and to monitor the effectiveness of their custodians. Statistics had, to be sure, a role in the internal ordering of the institutions, providing a balance sheet of patient admissions and outcomes that we might compare with the revenues and expenditures inscribed in financial books. Both forms of recordkeeping, medical as well as financial were regulated ever more tightly by governing boards, commissioners in lunacy, and ministers of health to whom the institutions reported. Patient outcomes provided the evidence by which these officials, and to a degree the general public, assessed the medical effectiveness of asylum care and made comparisons among institutions. Since they were being judged in part by their statistics, the asylum superintendents would have been irresponsible not to do all they could to improve these statistics, and through such efforts they gave discerning observers and resentful rivals grounds for suspicion that their facts might be factitious. Early asylum doctors were, in short, the pioneers of evidence-based medicine in its now-familiar statistical from. Their creativity was nurtured by the novel expectation that a responsible institution must faithfully keep account books, which should be made available for inspection by responsible authorities.

Keeping Proper Records

The story of funny numbers in relation to insanity might be said to begin in 1789. This would not be on July 14 but January 7, not the storming of the Bastille but a meeting of a committee of the House of Commons in Westminster to decide what to do about the King. His recent madness had provoked a furor among his physicians, spreading to the Parliament and the nation. Who, if anyone, was qualified to treat the royal patient, and who could say whether he would recover in time to forestall the need (for some, the earnest desire) to appoint a regent? What confidence could be placed in the irregular regime of Reverend Dr. Francis Willis, brought in from outside the elite circle of royal physicians? The committee interrogated Richard Warren, physician to the king:

> Whether if Nine Persons out of Ten, placed under the Care of a Person who had made this Branch of Medicine his particular Study, had recovered, if they were placed under his Care within Three Months after they had begun to be afflicted with

> the Disorder, Doctor Warren would not deem such Person, either very skilful or very successful?

He answered conditionally that he would, hypothetically. But did he accept the premise?

> Whether, in order to induce Doctor Warren to believe, that, for Twenty-seven years, Nine persons out of Ten had been cured, he would not require some other Evidence than the Assertions of the Man pretending to have performed such Cures?

"I certainly should," he now declared. Pretensions like these should be backed up by proper records. (Committee appointed 1789, 20, 25; Porter 2012a)

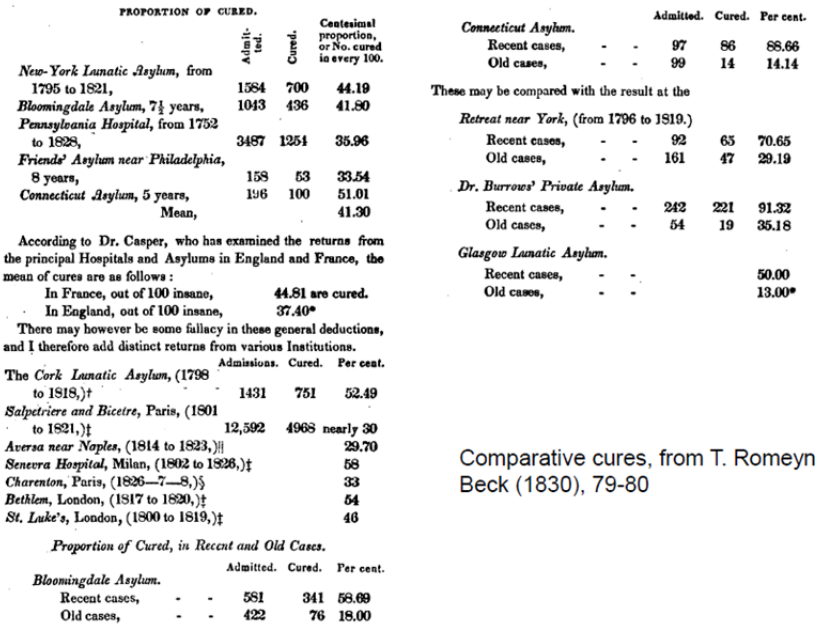
We can be impressed by the sweep of the quantifying bustle that accompanied the transformative political, economic, and scientific developments of the early nineteenth century without pretending to have located a clean historical rupture. While the reactions to George III's mental breakdown in 1789 mark a convenient beginning for a historical study of asylum statistics, the story remains halting and episodic until the 1830s. By then, the cascades of numbers that engulfed so many aspects of social, governmental, and scientific life were clearly recognizable as a historic movement. Statistics had become and would remain a key template for knowledge and an irrepressible force in administration. The quantitative sensibility did not quite sweep all before it, but for centuries there has never been a down market in numbers. The Anglo-Scandinavian King Canute could not still the seas by mere force of his command, but he might have secured a reputation in social science by forecasting a millennium in which the statistical tide would never ebb. (Porter 1986; Hacking 1990)

Yet, we must ask, what boats did this tide lift? Physicians, traditionally, had been suspicious of statistics. Treatment by numbers, applied indiscriminately, would undermine the professional standing of medicine, which always was identified with an expert matching of principles to a distinctive individual patient. Public health was an exception, and asylum medicine, the treatment of the insane, even more so (Matthews 1995; Marks 1997; Rusnock 2001; Jorland, Opinel & Weisz 2005; Greene 2007). Insanity, of course, presented challenges to cool statistics. What the French called *folie raisonnante*, reasoning with a display of logic from twisted or outlandish assumptions, is not unknown in quantitative procedures. In medical studies, especially of mental illness, it lurks ominously wherever relevant background knowledge has been suppressed for the sake of a seemingly straightforward numerical comparison. Yet the advance of numbers in asylum medicine was hard to turn back. This is not only because most nineteenth-century asylums, as public institutions, were subject to rising standards of accountability. It owes also to the delirious growth of insanity in the asylum era, so that institutions established to solve the problem in a province or county by providing beds for 100 or 250 inmates grew to include a thousand, two thousand, even five or ten thousand, and still there were more clamoring to be admitted. A multitudinous

congregation of disorderly, unreasonable persons makes a situation calling out for statistics.

Problems with Cure Rates

The issue of cure rates, which rose to the surface in regard to George III, became critically important in the nineteenth century. Especially in northern Europe and North America, tables proliferated in public and bureaucratic reports. None were so universal as the patient table or table of population movement, which supplied in columns the number of patients at the beginning of the year, new admissions, patients released cured, improved, unimproved, and dead, and number of residents at the end of the year. Every patient entered here as cured or improved gave donors and legislators another reason to invest money in specialized institutions for the mentally ill, rather than leaving them to rot in prisons and poorhouses. Americans proved themselves particularly adept at this form of demonstration. Theodric Romeyn Beck, for example, used statistical reports to compare American institutions with each other, and with foreign ones. His tables from 1830, still in a very early phase of the asylum movement, showed cure rates in America comparable to the most famous European asylums. American asylum directors often evinced conspicuous satisfaction in the superiority of their calculated results to those of celebrated Old World alienists such as Esquirol at Bicêtre or Samuel Tuke at the Retreat in York (Beck 1830).



PROPORTION OF CURED.

	Admitted.	Cured.	Centesimal proportion, or No. cured in every 100.
New-York Lunatic Asylum, from 1795 to 1821,	1584	700	44.19
Bloomingdale Asylum, 7¼ years,	1043	436	41.80
Pennsylvania Hospital, from 1752 to 1828,	3487	1254	35.96
Friends' Asylum near Philadelphia, 8 years,	158	53	33.54
Connecticut Asylum, 5 years,	196	100	51.01
Mean,			41.30

According to Dr. Casper, who has examined the returns from the principal Hospitals and Asylums in England and France, the mean of cures are as follows:

In France, out of 100 insane, **44.81 are cured.**
In England, out of 100 insane, **37.40***

There may however be some fallacy in these general deductions, and I therefore add distinct returns from various Institutions.

	Admissions.	Cured.	Per cent.
The *Cork Lunatic Asylum*, (1798 to 1818,)†	1431	751	52.49
Salpetriere and Bicetre, Paris, (1801 to 1821,)‡	12,592	4968	nearly 30
Aversa near Naples, (1814 to 1823,)‖			29.70
Senevra Hospital, Milan, (1802 to 1826,)‡			58
Charenton, Paris, (1826—7—8,)§			33
Bethlem, London, (1817 to 1820,)‡			54
St. Luke's, London, (1800 to 1819,)‡			46

Proportion of Cured, in Recent and Old Cases.

	Admitted.	Cured.	Per cent.
Bloomingdale Asylum.			
Recent cases,	581	341	58.69
Old cases,	422	76	18.00
Connecticut Asylum.			
Recent cases,	97	86	88.66
Old cases,	99	14	14.14

These may be compared with the result at the

Retreat near York, (from 1796 to 1819.)			
Recent cases,	92	65	70.65
Old cases,	161	47	29.19
Dr. Burrows' Private Asylum.			
Recent cases,	242	221	91.32
Old cases,	54	19	35.18
Glasgow Lunatic Asylum.			
Recent cases,			50.00
Old cases,			13.00*

Comparative cures, from T. Romeyn Beck (1830), 79-80

Theodric Romeyn Beck printed tabular figures for cures and cure rates to demonstrate that asylums in the United States compared favorably with the most famous institutions from the Old World.

Yet an absolute cure rate, the alienists insisted, could not capture the achievement, still less the potential, of lunatic asylums dispensing the new moral treatment. These figures, it was understood, included many cases that had become hopeless through neglect or ill treatment. The purpose of the numbers was not merely to summarize past experience, but to encourage families to seek help for their relatives before it was too late, and in this way to clear the path for improving the numbers. The proper measure of what asylums could contribute to the welfare and prosperity of a people was no indiscriminate total of past results, but the cure rate for new cases, before the effects of a disorder had time to penetrate deeply into brain tissues.

The pressure of competition, as in any free market, inspired vigorous emulation and improvement, pushing these numbers still higher. In the United States, where this form of evidence was widely publicized, cure rates for fresh patients rose to the wondrous level of 90% that had seemed merely boastful when claimed by Dr. Willis. Indeed, there were some who thought them boastful still. After all, the fundamental principle of comparative statistics in action stands above frequency distributions or curve fitting. The first law of funny numbers is that every favorable comparison implies an equal and opposite unacceptable comparison, which will therefore be challenged. At Siegburg Asylum near Cologne, in Germany, Maximilian Jacobi insisted that the implausibly high cure rates of English institutions were achieved by discharging patients as cured before they had fully recovered (Prichard 1837). Even temporal comparisons began soon to create trouble. In Massachusetts, where cure rates rose momentarily above 90% (for "fresh" patients), they soon turned down, and asylum officials began to complain of being forced to take whatever patients were sent by some judge, whether or not there was any prospect that the institution could help them. These might be people who had spent years moldering in a prison or barn, and now were on the verge of death.

> When it is considered, as is the fact, that many persons of abused lives and exhausted constitutions, of bodily as of mental imbecility, and of *mania* brought on by vicious indulgence or by remorse for crime, are committed to this Hospital, but to be cared for during a brief season of languishment without hope of relief, and then to be buried at the public charge, the wonder is, that so *few*, rather than so many, yearly die. It is not a rare occurrence, that subjects, *not for cure*, but for care and nursing only, reach the Hospital in the last stages of existence, and a few short days, or weeks it may be, add their names to the lists of mortality. (State Lunatic Hospital 1851, 7-8).

The directors of these institutions understood that a well-timed transfer, say from a poorhouse to a mental hospital, was statistical alchemy, transforming a death into a discharge. But to the asylum, it exemplified the principle of equal and opposite forces, a death that would now weigh on their statistics. What tide could lift it? The only hope, if they could not reject such patients, was reclassification: in-

mates arriving in extreme ill health and dying within weeks should no longer be counted as patients of the receiving institution.

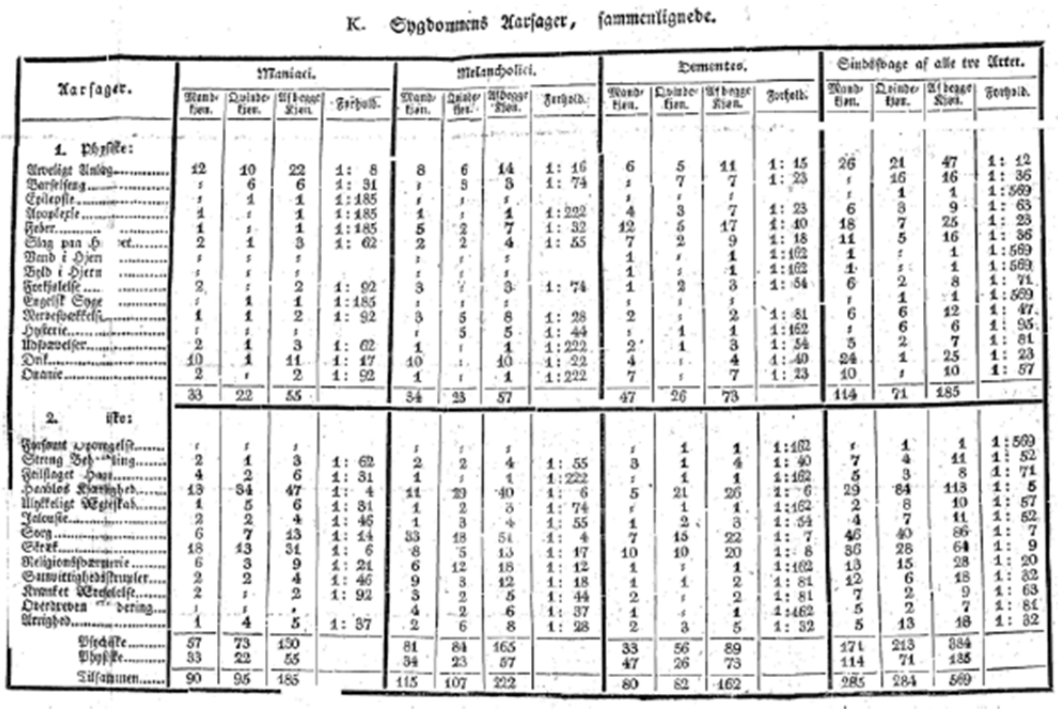
Sadly, cure rates continued to decline, sinking below 20% in some of the largest and most prominent institutions by the end of the nineteenth century. Asylum officials were perplexed as to how those old institutions, to whom were unknown the wonderful modern improvements in science and architecture, had managed to cure such a high proportion of their patients. Statistical opportunism, it appeared to Pliny Earle, who addressed the question in his 1877 annual report for the Northampton Asylum in Massachusetts. In the early years of Worcester, Earle explained, superintendent Samuel Woodward had achieved his unmatched success by calculating the cure rate as a percentage of patients *discharged*, without even counting inmates who died in the institution, so that only patients who left the institution unrecovered weighed against him in the statistics. Earle found also that very few institutions had ever corrected their reports for relapsed patients. In fact, he confessed, neither had he when, three decades earlier, he had served as superintendent of the Bloomingdale Asylum in New York. Reanalyzing the data, he found many patients who had been discharged as cured, readmitted to the same institution, and discharged again, perhaps multiple times. One of his own, he now acknowledged, had been admitted a total of 59 times over a period of 29 years, and discharged as recovered 46 of those times! (Earle 1887: 10, 22-24).

Standardized Figures of Insanity

Faced with a record of ostensibly declining effectiveness, asylum directors became more and more conscious of loose definitions. Cure rates could not be reliably compared unless they meant the same thing in different times and different institutions. This meant standardized disease categories, standardized criteria of cures, and agreement on what population measure exactly should be placed in the denominator of the fraction whose numerator was the number of cures. The great initiative for uniform asylum statistics came from France in the late 1860s. A valid use of cure rates as a basis for comparing the effectiveness of institutions required that the admitted patients could be made comparable along a whole array of variables that were likely to affect the likelihood of recovery. This demanded uniform disease categories as well as agreement on all the patient characteristics that should be registered along with the disease, including age, education, rural or urban, and occupation. By 1870, the statistical categories had begun to reflect a heightened obsession with heredity and all the factors that might be hereditarily linked to insanity, including drunkenness, illegitimacy, epilepsy, feebleminded-ness, tuberculosis, crime, and suicide. Yet the task of comparison could scarcely be solved at the level of the asylum, since decisions as to what categories of patients were to be admitted and discharged were outside the power of directors and

statisticians. It was the same problem that undermined the efforts of the International Statistical Congresses from about 1850 to 1880.

Even the effort to count the insane and compare these numbers internationally depended on multiple dimensions of standardization that proved unattainable in practice. These numbers were administratively as well as scientifically important, since the prevalence of insanity in a population determined the scale of institutions required to house and care for them. Given the difficulty of locating and tallying the non-institutionalized insane, many statisticians preferred to rely on an excellent census in some foreign land over a flawed one at home. On the assumption that lunacy rates were relatively uniform among European populations, it followed that the highest measures of proportion insane in a population were generally the most accurate. Hence the alienists attended closely and respectfully to census results from Belgium, Scotland, Switzerland, and in particular from Norway, which in 1828 was vaulted into first place in the ratio of insane to population by Frederik Holst's thorough and detailed census.



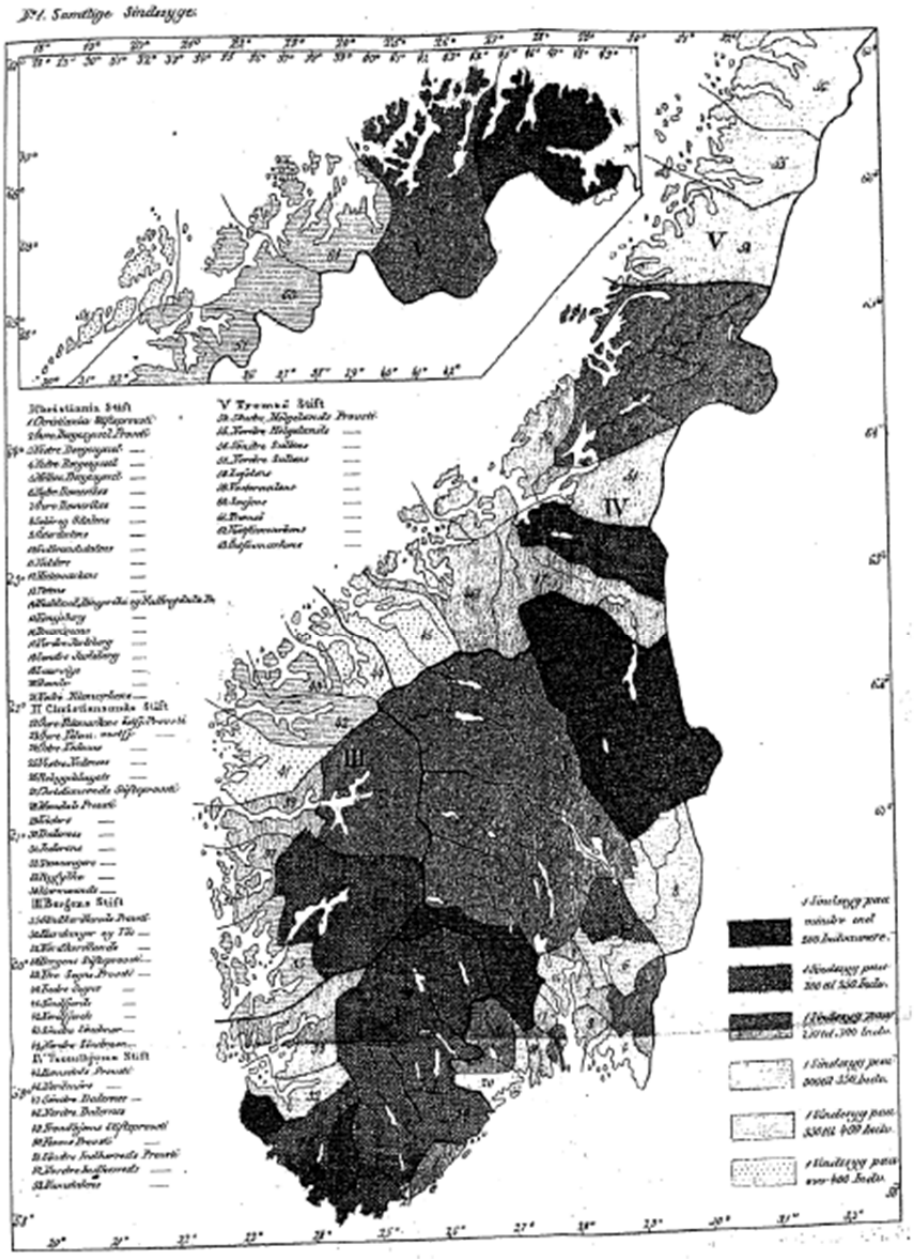
K. Sygdommens Aarsager, sammenlignede.

Aarsager.	Maniaci.				Melancholici.				Dementes.				Sindssvage af alle tre Arter.			
	Mandkjøn.	Qvindekjøn.	Tilsammen.	Forhold.	Mandkjøn.	Qvindekjøn.	Tilsammen.	Forhold.	Mandkjøn.	Qvindekjøn.	Tilsammen.	Forhold.	Mandkjøn.	Qvindekjøn.	Tilsammen.	Forhold.
1. Physiske:																
Arvelige Anlæg	12	10	22	1: 8	8	6	14	1: 16	6	5	11	1: 15	26	21	47	1: 12
Barnefødsel	;	6	6	1: 31	;	3	3	1: 74	;	7	7	1: 23	;	16	16	1: 36
Epilepsie	;	1	1	1:185	;	;	;		;	;	;		;	1	1	1:569
Apoplexie	1	;	1	1:185	1	;	1	1:222	4	3	7	1: 23	6	3	9	1: 63
Feber	1	;	1	1:185	5	2	7	1: 32	12	5	17	1: 10	18	7	25	1: 23
Slag paa Hovedet	2	1	3	1: 62	2	2	4	1: 55	7	2	9	1: 18	11	5	16	1: 36
Vand i Hjernen	;	;	;		;	;	;		1	;	1	1:102	1	;	1	1:569
Vold i Hjernen	;	;	;		;	;	;		1	;	1	1:102	1	;	1	1:569
Forkjølelse	2	;	2	1: 92	3	;	3	1: 74	1	2	3	1: 54	6	2	8	1: 71
Engelsk Syge	;	1	1	1:185	;	;	;		;	;	;		;	1	1	1:569
Nervesvækkelse	1	1	2	1: 92	3	5	8	1: 28	2	;	2	1: 81	6	6	12	1: 47
Hysterie	;	;	;		;	5	5	1: 44	;	1	1	1:162	;	6	6	1: 95
Uopmerksomhed	2	1	3	1: 62	1	;	1	1:222	2	1	3	1: 54	5	2	7	1: 81
Onani	10	1	11	1: 17	10	;	10	1: 22	4	;	4	1: 40	24	1	25	1: 23
Ukjendt	2	;	2	1: 92	1	;	1	1:222	7	;	7	1: 23	10	;	10	1: 57
	33	22	55		34	23	57		47	26	73		114	71	185	
2. Ikke:																
Forsømt Opdragelse	;	;	;		;	;	;		;	1	1	1:102	;	1	1	1:569
Streng Behandling	2	1	3	1: 62	2	2	4	1: 55	3	1	4	1: 40	7	4	11	1: 52
Feilslaget Haab	4	2	6	1: 31	;	1	1	1:222	;	1	1	1:102	5	3	8	1: 71
Haabløs Ulykkelighed	13	34	47	1: 4	11	29	40	1: 6	5	21	26	1: 6	29	84	113	1: 5
Ulykkelige Ægteskab	1	5	6	1: 31	1	2	3	1: 74	;	1	1	1:102	2	8	10	1: 57
Jalousie	2	2	4	1: 46	1	3	4	1: 55	1	2	3	1: 54	4	7	11	1: 52
Sorg	6	7	13	1: 14	33	18	51	1: 4	7	15	22	1: 7	46	40	86	1: 7
Skræk	18	13	31	1: 6	8	5	13	1: 17	10	10	20	1: 8	36	28	64	1: 9
Religionsforvirrelse	6	3	9	1: 21	6	12	18	1: 12	1	;	1	1:102	13	15	28	1: 20
Samvittighedsskrupler	2	2	4	1: 46	9	3	12	1: 18	1	1	2	1: 81	12	6	18	1: 32
Krænket Ærekjærlighed	2	;	2	1: 92	3	2	5	1: 44	2	;	2	1: 81	7	2	9	1: 63
Overdreven Andagtighed	;	;	;		4	2	6	1: 37	1	;	1	1:162	5	2	7	1: 81
Ukjendt	1	4	5	1: 37	2	6	8	1: 28	2	3	5	1: 32	5	13	18	1: 32
Psychiske	57	73	130		81	84	165		33	56	89		171	213	384	
Physiske	33	22	55		34	23	57		47	26	73		114	71	185	
Tilsammen	90	95	185		115	107	222		80	82	162		285	284	569	

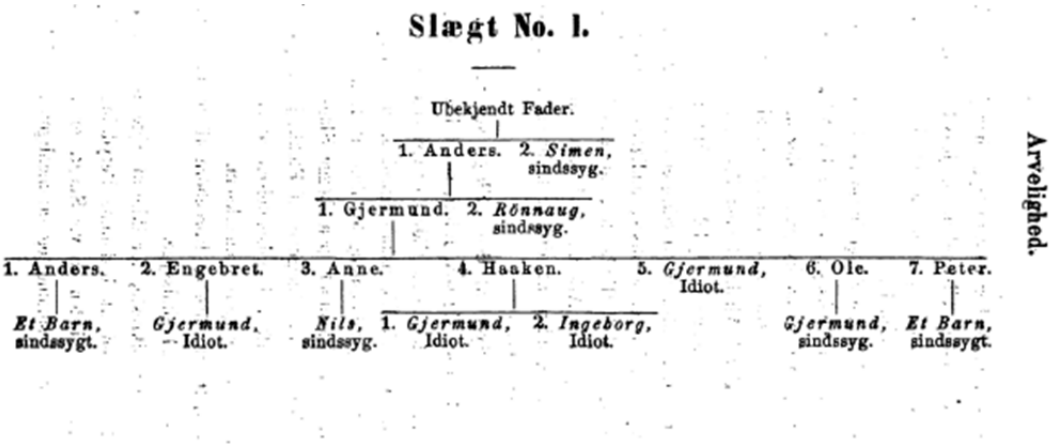
This table of causes of insanity by disease form and by sex of patient was one of the more striking products of the pioneering Norwegian census of insanity, directed by Frederik Holst and published in 1828.

Étienne Esquirol of France, who called insanity a "disease of civilization," had been skeptical of Holst's numbers. How could poor, rural Norway, with its fjords, forests, and rural poverty, be so far ahead of France or England as these numbers seemed to indicate? By 1859, new numbers from Norway drew admiring commentaries in France, Britain, and Germany. Working from the registers compiled by Holst and his successors, Ludvig Dahl outstripped everyone with an exhaustive

tally of the insane and their hereditary relations in a few Norwegian provinces, including a pioneering set of family pedigrees of mental illness (Holst 1827; Dahl 1859).



This shaded map from Ludvig Dahl (1859) indicated ratio of insane, including mentally weak, for the parishes of Norway.



Ludvig Dahl (1859) supplied the prototype of the eugenic pedigree chart of family defects. Half a century later it had become ubiquitous.

Yet the praiseworthy efficiency of the Swiss and Norwegians was no substitute for thorough, reliable counts at home, if international comparisons were to be based on statistical facts rather than uncodified experience and reasonable assumptions The standardizing efforts of the supremely civilized 1860s were designed to eliminate spurious differences and provide bureaucratic solutions to the problem of insanity rankings, advancing science while mitigating envy and resentment. And yet standardization proved impossible, for the reasons we have already seen, and others too. In 1870-71, the military defeat of France severed alienist connections with Prussia, forcing the Germans to pursue standardization in one country. Or, to sum up this first part of my story, beneath the veneer of rationalized bureaucratic efforts to standardize statistics, insanity held its place, uncontrolled and unharmonized. An expert on mental illness with extensive international experience might argue plausibly for the greater prevalence of specific conditions in one or another land, or defend the superiority of a certain treatment regimen as practiced by a particularly well-run institution. But the golden ideal of settling such issues with systematic, uniform, boring compilations remained well beyond reach.

Numbers of Neoliberalism

Too much was at stake to maintain a strict, humorless quantification. Funny numbers are misleading, deceitful numbers, but they can also be humorous, if darkly so. Trust in numbers always brings such temptations with it. The numbers of neoliberalism, for example, are tools of decentralization, based often on indirect forms of power. Such numbers as indicators and benchmarks provide means to judge dispersed actors engaged in a common project under a central authority such as a government or corporation. Good numbers bring wealth and prosperity, and justify promotions (in the public economy) or bonuses (in joint stock compa-

nies and especially banks and investment firms). The appearance of new forms of public management that emphasized assessment by the numbers was met promptly with critiques that such measures led to gaming and "goal displacement" (Hood 1991; Bevan & Hood 2006). Onstage, a plodding bureaucracy sitting around a table proceeds with laborious deliberations on such questions as how much debt a hedge fund can take on for arbitrage in circular exchanges that may be completed in nanoseconds. The press and citizens have the opportunity, if we look hard, of seeing also what is happening off stage. It's a bit like Michael Frayn's play *Noises Off* or the Cole Porter musical, *Kiss Me Kate*. On stage, the action proceeds at first as if according to plan. Off stage, the madness gradually extends its empire until the onstage action also is infected by the chaos.

Whoever can exploit the ambiguity of measures to fulfill numerical targets without having to expend resources on the thing measured enters into the domain of funny numbers. Such opportunities will be found wherever approval, payment, or some other desired end is made contingent on achieving a quantitative standard. Similar forms of deceit are possible in other contractual arrangements, yet the modern reverence for quantitative evidence has enabled funny numbers to achieve primacy. The ascendancy of cost-benefit analysis, risk analysis, and statistical tests of significance stands in tribute to this ideal. We must never suppose that corruption was ushered into the world by numbers, which, on the contrary, have achieved prominence partly in the hope of controlling it. We would be rash to suppose that such efforts are fruitless, yet Proteus always finds new forms suited to new constraints, and funny numbers have given a definite advantage to financial markets. These furnish a new theater of insanity, one that is uniquely funny because the deception and manipulation that we see offstage have *made possible* the fine displays of order and tranquility on view. "Pay no attention to the little man behind the curtain," says the little man in the American theater of bimetallism, *The Wizard of Oz.* But after awhile, as bankers and investors from Iceland and Ireland, Britain and the United States, brought on waves of corporate bankruptcies and depleted pension funds, as millions all over the world are driven from their homes and forced into unemployment, as whole nations face financial collapse, threatening the European monetary system, the man behind the screen must be recognized.

These are *Funny Numbers*, painfully funny, worked out according to a logic of standardized decorum that is undermined in reality at every junction. The pretense of their validity provides space within for bankers and CEOs to profit from their ambiguities and manipulability. The irony is that the bankers were right in a performative sense for long enough to meet their own needs. So much wealth implies very powerful interests. These men did not allow their enterprises to fail until they failed catastrophically. Right up to the financial collapse of 2008, investment companies were showing wonderful profits on paper. Even afterwards, they held onto sufficient resources to fend off investigation. They had the power to keep the

numbers *boring*, maintaining a screen in front of this theater of the absurd. It is time to recognize the raw power that sustains the impression of orderly boringness in financial accounts.

Every effort at data reduction has the potential to produce funny numbers, which seem to be inevitable in a world of statistics. We should recall that statistics as a mathematical field grew up in the early twentieth century, an era that worshiped simplification, mass production, and standardization. Funny numbers enjoy a symbiotic relationship with the modern social sciences, which have typically been impatient with historical and cultural depth, preferring what I call *thin description*. They flourish in that world of subtle differences occluded by thin description, permitting a kind of arbitrage that highlights once more the links to finance (Porter 1986, 2003, 2012b; Desrosières 1993).

Thin description, however, provides merely the *opportunity* to invent funny numbers. We need also to consider motive, which rarely follows simply from description. Funny numbers made their breakthrough in alliance with an ethic of thin *prescription*. Thin prescription means judging a person or institution by a few numbers or, ideally, one number. Now here, I am sorry to say, we are compelled to confront the unpleasant fact of irony. This ethic of *thin prescription* was invented to make the facts transparent by erecting obstacles to special pleading. It arose as a strategy of impersonal regulation. There is a price, which we are often willing to pay, to deploy statistics as insurance against casuistry—so deep is the discredit into which reasoning about cases has fallen on the scales of evidence. If the statistical analysis of a psychological or therapeutic experiment finds no demonstrable effect, we don't want the experimenter making causal efficacy appear after the fact by saying we should have excluded the subjects who lost their jobs or had unhappy love affairs during the course of the trial. Once the constraint of statistical routine is lifted, experimenters with disappointing numbers will make excuses: Look at its good effect on this patient and that patient, the statistical refuseniks will say, while the heart attack that struck some other patient will be attributed to extraneous factors, such as high blood pressure or an infection during travel abroad. Thin prescription should subject these advocates to the discipline of hard facts.

Thin prescription provides ideal conditions for trust in numbers. But this phrase can easily be misunderstood. Trust in numbers in its most important and interesting form is not about some cultural disposition to put implicit faith in measures and calculations, but about the containment of subjectivity. Yet the replacement of opinion by calculation in thin prescription raises the stakes of statistical calculation. It makes the numbers into something worth fighting over, putting intense pressure on the ideal of honest calculation. The wielders of numbers under such circumstances would like them to seem as boring and technical as possible. Boringness means there are no shady manipulations, no basis for controversy, or at least that nobody recognizes it. Technical routines shut down dissent. Boring is

what the budget office, the engineering corps, or the international bank puts on the stage. And just behind the stage we can see, if we look closely, intense struggle about how the quantification should be performed, struggle that undermines the unwilling suspension of disbelief in the theater of objectivity that is acted out for the audience. We can scarcely imagine that negotiation and corruption are driven from the field by the weak tools of calculation. Thin prescription sometimes works as a screen that protects them from the eyes of the curious. At other time the battles over numbers that serve as proxy for naked struggles based on interests cannot be contained, moving the action into full public view. In any case, it is the proper task of social science to pursue historical and cultural understanding of these ostensibly technical disputes. These situations are profoundly ironical, and an accurate narration of number wars should be funny, or at least sardonic (Porter 1995, 2009; Rottenburg 2009).

We scholars of quantification are privileged to live in the golden age of funny numbers. Neoliberalism is not simply about the superiority of private enterprise, about shrinking the state. It is about making private enterprise a model for public agencies, and licensing it to carry out state programs. This means decentralized action and decisions directed by well-designed incentives. A brilliant epistemology stands behind it. Friedrich Hayek, in alliance with Michael Polanyi, argued persuasively for the inherent superiority of local knowledge: people close to the scene of the action will always know much that is inaccessible to some far-removed bureaucratic center. Let the plodding state officials, then, be replaced by a private firm, and let it be earn profits when it effectively discharges its assigned task. It would of course defeat the purpose of this excellent system if high functionaries in the capital had to look over every shoulder and intervene in every detail. Let them, then, act as a center of calculation, deploying the tools of thin prescription, and rewarding these firms in proportion to their success in generating good numbers (Latour 1997; Desrosières 2003).

This way of working is admirably objective, even while leaving a generous space for the application of detailed expertise. But there is a little problem. The advantage of those with the best local knowledge extends also to the accounts and the statistics. If the central office were to specify everything in infinite detail, the benefits of reliance on local knowledge would evaporate. If instead, distant administrators define broad quantitative goals and give local people the incentive of increased profit for finding more efficient ways to attain these goal, self-interested contractors may be tempted to optimize the numbers in ways that evade the real purposes of the work. The most efficient way to increase profits may not be to provide valuable services, but to corrupt the calculation, and if a local firm has a sufficient monopoly on expertise, it will be very hard to demonstrate corruption. Accounting rules may be heavy as lead, permitting the entrepreneurs of public thievery dance circles around them.

A similar dynamic affects and often oppresses public institutions, which also are increasingly caught up in a system of incentives and punishments. Such are the principles behind Research Assessment Exercises in Britain, with imitators in other countries. At least the British seem to realize that the incentives can easily become perverse, and have done what they can to make gaming difficult. Much worse I think are the tests of elementary and high school effectiveness in the United States, which pretend to preserve local control of schools by subjecting all to a common measure. They do not know how to address the unstandardizable aspects that make these measures so difficult, and some of the designers of these measures intend by them to destroy public education so as to create space for profits in the private sector. The standards are archetypes of thin prescription, and their greatest impact has been to encourage the reconstruction of school curricula to match the content of the tests, and sometimes to make the temptation to cheat almost irresistible.

Of course there always are sincere souls trying to close these loopholes, a Sisyphean task, like the efforts of tax authorities in Greece or Italy or the United States. Closing down such manipulations would be difficult enough if the wealthy did not, by funding political candidates, invest shrewdly in tax avoidance in the form of what amounts to bribery of their elected officials. The contradictory forces of making rules and exploiting ambiguities have played a key role in the shaping of modern accounting systems. The little Dutch boy of legend who saved a town by putting his finger in the dike had it easy. This is like Hercules and the Hydra: every hole plugged opens up two new ones. It is a Vaudeville scene, a preserve for the production and reproduction of funny numbers.

Thin prescription, in its highest forms, has two outstanding characteristics: it is typically presented as hard objective fact, the counter to special pleading; and yet these thin measures are readily and invisibly manipulated by interested actors. These are intrinsically comic situations, though typically unrecognized by the participants, because they so often are bound up with sober bureaucratic and professional rituals. Even more do outsiders dismiss them as dull and technical. It is a task for historians and ethnographers to reveal the comic dimension of numbers by displaying, beside the controlled action on stage, the offstage turmoil and disguises. Yet these stories go beyond comedy. Marx, correcting Hegel, argued that world-historic events happen twice, but, overgeneralizing, failed to notice that they may commence as farce, then turn to tragedy. We of the third millennium have been often reminded.

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References

Beck, Theodric Romeyn (1830): "Statistical Notices of some of the Lunatic Asylums in the United States," *Transactions of the Albany Institute*, vol. 1, part I, 60-83.

Bevan, Gwyn & Christopher Hood (2006): "What's Measured Is What Matters: Targets and Gaming in the English Public Health System," *Public Administration*, 84, 517-538.

Committee appointed to Examine the Physicians who have attended His Majesty During His Illness, Touching the present State of His Majesty's Health (1789): *Report*, Ordered to be printed 13th January 1789.

Dahl, Ludvig Vilhelm (1859) *Bijdrag til Kundskab om de Sindssyge i Norge*, Christiania: Det Steenske Bogtrykkeri.

Desrosières, Alain (1993): *La politique des grands nombres: Histoire de la raison statistique*, Paris: La Découverte.

Desrosières, Alain (2004): "Managing the Economy". Theodore M. Porter & Dorothy Ross, (eds): *The Cambridge History of Science, volume 7: Modern Social Sciences*, New York: Cambridge University Press, 553-564.

Earle, Pliny (1886/1887): *The Curability of Insanity: A Series of Studies*, Philadelphia: J. B. Lippincott Company, Study First.

Greene, Jeremy (2007): *Prescribing by Numbers: Drugs and the Definition of Disease*, Baltimore: Johns Hopkins University Press.

Hacking, Ian (1990): *The Taming of Chance*, Cambridge: Cambridge University Press.

Hood, Christopher (1991): "A Public Management for all Seasons", *Public Administration*, 69, 3-19.

Holst, Frederik (1828): *Beretning, Betankning og Indstilling fra en til at undersøge de Sindsvages Kaar i Norge og gjøre Forslag til deres Forbedring i Aaret 1825 naadigst nedsat Kongelig Commission. Med en Samling af Tabeller og tvende Tavler i Steentruk*, Christiania: Trykt hos Jacob Lehmanns Enke.

Jorland, Gerard, Annick Opinel & George Weisz, (eds) (2005): *Body Counts: Medical Quantification in Historical and Sociological Perspective*, Montreal: McGill-Queen's University Press, 2005.

Latour, Bruno (1997): *Science in Action*, Cambridge, MA: Harvard University Press.

Marks, Harry (1997): *The Progress of Experiment: Science and Therapeutic Reform in the United States*, Cambridge: Cambridge University Press.

Matthews, J. Rosser (1995): *Quantification and the Quest for Medical Certainty*, Princeton: Princeton University Press.

Porter, Theodore M. (1986): *The Rise of Statistical Thinking, 1820-1900*, Princeton: Princeton University Press.

—— (1995): *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*, Princeton: Princeton University Press.

—— (2003): "The Social Sciences", David Cahan (ed.): *From Natural Philosophy to the Sciences*, Chicago: University of Chicago Press, 254-290.

—— (2009): "How Science Became Technical," *Isis*, 100, 292-309.

—— (2012a) "Quantity and Polity: Asylum Statistics and the Drive for Medical Evidence", Jed Z. Buchwald (ed.) (2012): *A Master of Science History: Essays in Honor of Charles Coulston Gillispie*, New York: Springer, 327-340.

—— (2012b): "Thin Description: Surface and Depth in Science and Science Studies", Robert E. Kohler & Kathryn M. Olesko (eds): *Clio Meets Science: The Challenge of History*, Osiris, 27, 209-226.

Prichard, James Cowles (1835): *A Treatise on Insanity and Other Disorders Affecting the Mind*, London: Sherwood, Gilbert, and Piper.

Rottenburg, Richard (2009): *Far-Fetched Facts: A Parable of Development Aid*, Allison Brown and Tom Lampert (trans.) Cambridge, MA.: MIT Press.

Rusnock, Andrea (2001): *Vital Accounts: Quantifying Health and Population in Eighteenth-Century England and France*, Cambridge: Cambridge University Press.

State Lunatic Hospital (1851): *Nineteenth Annual Report of the Trustees of the State Lunatic Hospital at Worcester*, Boston: Dutton and Wentworth, State Printers, Report of the Trustees.

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Sound Objects and Sound Products: Standardizing a New Culture of Listening in the First Half of the Twentieth Century

By Alexandra Hui

Abstract

In this chapter I develop the psychological underpinnings of environmental music towards an understanding of how the goals of cognitive and behavioral psychologists contributed to a new kind of listening at the beginning of the twentieth century. I begin with an examination of nineteenth-century concerns about both the physical and psychological effects of music and fraught debate among experimental psychologists of the role of musical expertise in the laboratory. These concerns were, I argue, rooted in the assumption of a direct, corporeal connection between the generation and reception of music, usually bound within a single, individual body. In the twentieth century, new technology liberated the listener from a temporally- and geographically-bound experience of music. The Tone Tests, Re-Creation Recitals, and Mood Change "parties" of Thomas Edison and the psychologist Walter Bingham show that recording technology allowed for a normalization and standardization of listening not previously possible in the music halls and laboratories of the nineteenth century. Rather paradoxically, since it also made music more accessible to the individual listener, recorded music, mobilized by industrial psychologists and record companies alike, created a new sound experience actively designed for the lowest common denominator of mass listening. It also contributed to the cultivation of a new practice of mass listening. The new mass listening practice presents broader questions about the definition of music and its functional role – If the function of music is to be ignored, is it still music?

Keywords: Tone Test, Mood Change, Standardization of Listening, Walter Bingham, Edison Phonograph

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Introduction

> If Christmas card angels offer any proof, utopian creatures are forever smiling. Moozak, the sound wall of paradise, never weeps. It is the honeyed antidote to hell on earth. Moozak starts out with the high motive of orchestrating paradise (it is often present in writings about utopias) but it always ends up as the embalming fluid of earthly boredom. (Schafer, 1977/1994: 96)

In this way Canadian composer R. Murray Schafer begins the discussion of background music in his famed 1977 work, *The Soundscape*. His combination of the herd animal's "moo" with the most identifiable brand of background music, Muzak, belies his opinion of the practice well before he accuses it of reducing "a sacred art to a slobber" (Schafer 1977/1994: 98). He explained that background music was consciously designed to not be listened to, an acoustic wall that masks characteristic soundscapes.

Before their visages were reduced to the peaceful but blank stares of the embalmed, the Christmas card angels smiled. Schafer generously allowed that the original intentions of background music's developers were utopian. Background music had a history. There was an origin story of this sound object, consciously designed to not be listened to, just as, I would argue, there was an origin story of the type of listening required to allow one to become embalmed by its sound.

This type of listening, "threshold listening," came into being in the twentieth century, co-developing with sound recording and replay technology. Threshold listening is not quite active but also not quite passive. While the threshold listeners are not necessarily consciously aware of the music all the time, they respond to it both emotionally and physically. Sound studies scholars, musicologists, and cultural historians have long maintained the binary of active and passive listening, of listening and hearing. Threshold listening operates between these binaries, and long-term, a better understanding of the origins of threshold listening will hopefully bridge these binaries or blow them away.

Academic scholarship in science studies, sound studies, and the history of science has recently begun to explore the interaction between the world of science and the world of music, with rich and fruitful results (Thompson, 2002; Pinch & Bjisterveld 2003; Sterne 2003; Jackson 2006). Much of this scholarship has been devoted to the history of sound sensation, noise abatement, acoustic architecture, concert listening culture; the concept of soundscapes, generally speaking (Johnson 1995; Pinch & Trocco 2002; Thompson 2002; Sterne 2003; Bjisterveld 2008). These works also share a common interest in the evolving listening practices of the individual and the public.

So as not to mislead, I should note that this essay is not about Muzak specifically but rather the intellectual and cultural conditions and processes that made Muzak possible. I begin with a brief discussion of nineteenth-century ideas that circulated among – and between – both scientists and musicians about listening and the physical and emotional responses listening could potentially elicit. I then

examine the early twentieth-century efforts of psychologists working in coordination with the Phonograph Division of the Thomas Edison Company to turn sound objects into marketable sound products through the cultivation of a new kind of listening. I will focus on the work of psychologist Walter van Dyke Bingham to measure the motor effects of music. I will then turn to the Tone Tests, Re-Creation Recitals, and Mood Change Tests organized by the Edison Company to promote the phonograph. These performances, I argue, were a concerted effort to train the public to receive the sounds of the instrument in a specific way. I close with a brief discussion of the long-term consequences of these efforts, the Mood Change Tests especially. I argue that the cultivation of threshold listening was achieved as the sound object was standardized and the subjective practice of listening was objectified.

Correct Listening and its Bodily Consequences in the Nineteenth Century

The sonic world of the early decades of the twentieth century was highly unstable. There were new tuning systems, new non-Western music, and new Western music deliberately departed from earlier aesthetics, simultaneously moving backwards, resurrecting older folk traditions and forwards towards complete atonality. Musical sounds proliferated. Listeners also proliferated. Musicologists and psychologists debated their typologies and how to classify them (Myers 1927; Ortmann 1927). This discussion had its origins in the previous century. In both the music and natural science worlds there was an increase in the belief that there was a right and wrong way to listen. Related was a growing curiosity in the bodily effects of listening, the consequences of, say, listening incorrectly.

Within the scientific world, the study of sound sensation was splintering along the lines of the new disciplines and sub-disciplines. The new field of experimental psychology was increasingly interested in large aggregates of data collected from several experimental subjects of objectively measurable phenomena such as tone differentiation. This was in contrast to earlier practices of employing musically-trained experimental subjects that mobilized their subjective experiences of sound to study such phenomena as accommodation, undertones, duplex tones. This use of musical expertise as scientific expertise is seen in the early work of the physicists Hermann Helmholtz and Ernst Mach – they were so steeped in the music world that they believed sound and music to be interchangeable (Hui 2011; Hui 2012b).

A generation later, Wilhelm Wundt's lab would perform a series of experiments in which subjects would first be instructed to listen to two different tones and were then asked to judge whether a third was in between the first two (Lorenz 1890; Wundt 1891). The rigor of these experiments was rooted in the volume of data collected (hundreds of thousands of judgments) not in the listening skills of

the experimental subjects. This was in contrast to the early experiments of the gestalt psychologist-ethnomusicologist Carl Stumpf. His work on the psychology of tone sensation described his experimental subjects' *Musikbewusstsein*, music consciousness, or even music-infected consciousness, as a critically important skill for the study of sound sensation (Stumpf 1888, 1890, 1891).

Wundt and Stumpf actually got into a vicious debate about the role of musical expertise in the experimental study of sound sensation, which I have discussed elsewhere (Hui 2012a). I have argued that it reveals a new development in the laboratory: a right and wrong way of listening and further, the decreasing value and validity of the subjective, individual experience of sound. So while in the mid-nineteenth century, the ability to properly read, play, and above all hear music was necessary to properly do science; by the 1890s this assumption came under attack.

There were, of course, theories of listening that existed outside the walls of the laboratory. Perhaps the most dominant in the German-speaking world were the writings of the Viennese music critic, Eduard Hanslick. Though his 1854 treatise, *Vom Musikalisch-Schönen*, was primarily devoted to advancing his system of formalist musical aesthetics, he also included a discussion of listening typologies. The proper, true method of listening, according to Hanslick, was aesthetic listening, what he defined as the voluntary act of pure contemplation. Required to properly execute this pure contemplation was the musical expertise to recognize and analyze musical forms, the basis of Hanslick's formalism (Hanslick 1854/1957). This nineteenth-century formalist approach to listening was the correct way of listening, to be protected and celebrated.[1]

Interest in the psychophysical effects of music (as opposed to purely emotional effects) can also be traced back to the nineteenth century (Ziemer 2008). This interest can be loosely broken down into three forms. First, there was extensive concern with the dangerous physical effects of music on the body of the, usually female, performer (Jackson 2006; Kennaway 2010). These concerns were bound up with shifting values and behaviors of the rising middle class – piano ownership recently made possible with the industrialization of piano manufacture, faith in *Kultur* and belief that proper upbringing included competence on several musical instruments, etc. Efforts by physicians, musical instrument-makers, acousticians, and pedagogues to ameliorate the dangers of musical vibrations on the body of the performer took many forms, from prohibitions against too much performing to the development of new pedagogical techniques and devices. The body was trained, not simply to perform music better but to perform music more safely (Jackson 2006).

Several individuals raised the second, related concern of psychological effects of music brought on by improper listening technique. Again, Hanslick is a nice example. The aesthetic listener he described was contrasted with the pathological listener who experienced music in "a twilight-state awash in sounding nullity"

(Hanslick 1854/1957: 90-91). Or, even worse, was the observant listener – the very lowest common denominator of the audience – who sought only abstract feeling and experienced music "as if chloroformed" (Hanslick 1854/1957: 90-91). The musical experience of the individual who listened according to the proper rules of musical analysis was unquestioned. As long as the listening technique was correct (employed Hanslick's formalism), the sounds heard were legitimate. However, if the listener approached music incorrectly – listened wrong – the effects were akin to drug use, both psychological and physical.

Concerns with the physical and physiological dangers of music can be contrasted with the third form: benefits (beyond *Bildungsbürger* priorities of *Kultur*). For example, at the end of the nineteenth century, Leipzig economist Karl Bücher, elaborating on his earlier work on non-market (gift and exchange) economics, argued that music co-developed with labor. In his *Arbeit und Rhythmus*, Bücher located the origins of early agriculture and husbandry in animal-mimicking play (Bücher 1899). He explained that imitation of the sounds and movements of animals was centrally important in the "dances of primitive peoples", and, further, that "all regularly sustained activity finally takes on a rhythm form and becomes fused with music and song in an indivisible whole" (Bücher 1893: 27-28). In his *Die Enstehung der Volkswirtschaft* (*Industrial Evolution*), he found the disciplinary role of music to be critical for the development of cooperative labor, a necessary step towards industrialization.

Bücher believed the developmental step of concatenated labor aggregation, in which several workmen proceed together in such united tasks as meadow-mowing or tossing bricks, was achieved through the introduction of artificial means of marking tempo. He explained that "counting, singing, accompaniment of music" was the means by which simple, separate aggregation of labor became labor concatenation (Bücher 1893: 276). He cited examples of song employed in slave and gang labor from Cameroon to Sudan to China as well as the use of rhythm in "modern States" to maintain discipline in military exercises (Bücher 1893: 277). Music aided in both disciplining individual and coordinating multiple bodies. Rhythm, music and modern collaborative laboring practices, according to Bücher, developed in unison.

So, the status of musical expertise in listening, both in the laboratory and beyond, was being renegotiated at the end of the nineteenth century. On the one hand, the subjective, individual experience of sound was losing value for psychological research. And, correspondingly, so was musical skill. It belied a vulnerability to observation bias and was therefore a menace. On the other hand, in the concert halls and on the city streets, the individual listener – if he or she was the right kind of listener – was an increasingly valued creature. Implicit in the negotiations over the role of musical expertise in listening was that the correct form of listening would result in the ideal experience of sound. There was an assumption that music had mechanical potential, it could cause certain effects. The interest in

the bodily effects, both negative and positive, both on individuals and masses was both a consequence and contribution to this belief. The subsequent efforts of psychologists to experimentally confirm the motor effects of music in turn provided psychologists, and later, music marketers, with the tools to cultivate an entirely new kind of listening in relation to the introduction of new kinds of sound.

Walter Bingham's Studies of the Motor Effects of Music

Walter van Dyke Bingham is perhaps best known for his work during WWI as executive secretary of the Committee for Classification of Personnel in the Army for the War Department, essentially developing the intelligence and personality tests employed to rank and assign enlisted men and recruits; the first of several generations of aptitude tests that are still all the rage in America. He was trained in the psychology laboratories of Hugo Münsterberg at Harvard and James Angell at the University of Chicago. In 1915 Bingham founded and became director of the Division of Applied Psychology at the Carnegie Institute of Technology. Bingham stands at the intersection of scientific management and the mobilization of standardized mood effects of music, fully realized with the introduction of piped-in music to factories and workplaces in the 1930s.

In 1910 Bingham published "Studies in Melody," based on research done in the psychology labs of the University of Chicago and Harvard University, between 1905 and 1908 (Bingham 1910). The guiding question of Bingham's research was: What is melody? And if melody was a sense of unity (which he thought it was), how is this sense of unity perceived? Some previous experiments by others had suggested a relationship between the interpretation of the tonality phenomenon and kinaesthetic elements, motor accompaniments, sensations of strain and muscular movement (Meyer 1900; Lipps 1902; Meyer 1904; Weinmann 1904; Lipps 1905). So he set out to explore the motor effects of simple melodic stimuli.

Bingham's three-part hypothesis consisted of the following: First, attention was an activity that drew upon both special and general motor adjustments. Related, the general motor adjustments affect general body conditions. As a consequence, the rate of a circular motor process like finger-tapping, "which is going forward semi-automatically, will be affected by these activities, a decrease in rate signifying inhibition, due to increased activity elsewhere, and an acceleration signifying that the task of attention in organizing these activities is being successfully carried out" (Bingham 1910: 60).

To measure this decrease in rate signifying inhibition and acceleration signifying attention was being paid, Bingham relied on both the introspective testimony of the experimental subjects and precision measurements of rates of finger tapping. For this latter task, he developed a device for measuring finger-tapping rates, seen in figure 1. Experimental subjects were instructed to tap their fingers

while a variety of tonal sequences were played for them, some that were internally coherent (in terms of pitch) and some that were not, some that were short (just two tones) and some that were much longer. The subjects were also questioned about whether a tonal sequence sounded "incoherent," "incomplete," "final," etc (Bingham 1910: 61-79). Subjects were students or instructors from the Harvard psychological laboratory who varied in their musical abilities.

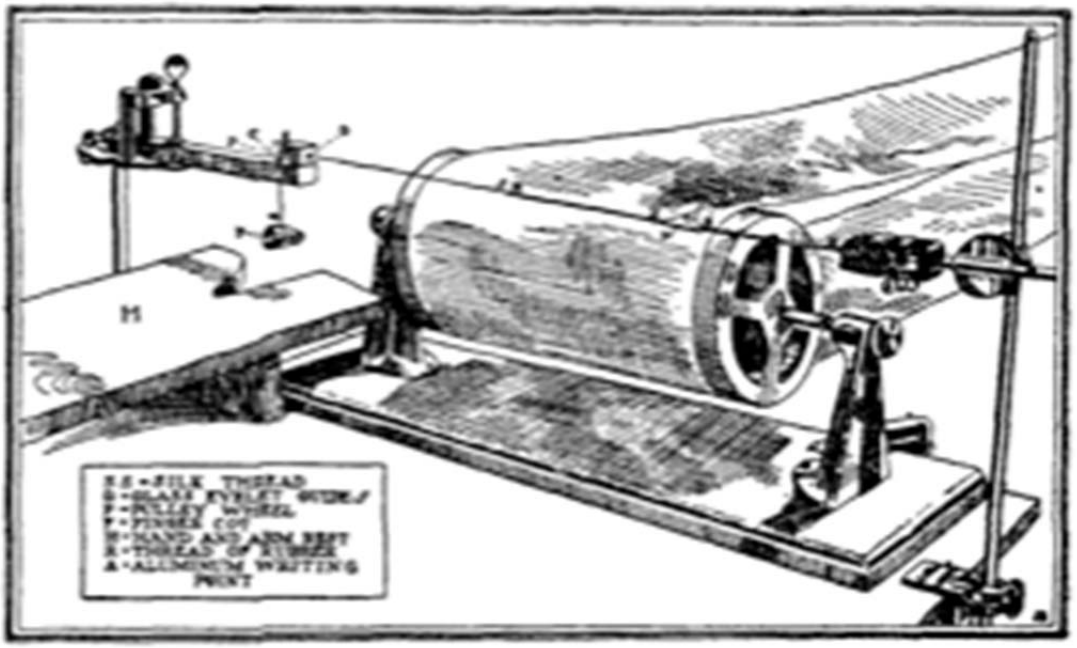


Figure 1. Device for measuring rate of finger tapping. W. V. Bingham, "Studies in Melody," p.44

The introspection provided numerous interesting anecdotes. The experimental subject "Ta.," for example, tapped "with the regularity of a ruling engine" but could give no introspection report because the tones had no effect whatsoever (Bingham 1910: 72). Combined with tables of tapping rates, the introspective reports hinted at what elements constituted melody. A comparison of just the rates of the tapping, between melody and non-melody, was even more illuminating (see figure 2). Bingham's results were not conclusive but they were suggestive. The researchers did find a correlation between rates of tapping for the internal coherence and finality of tone sequences.

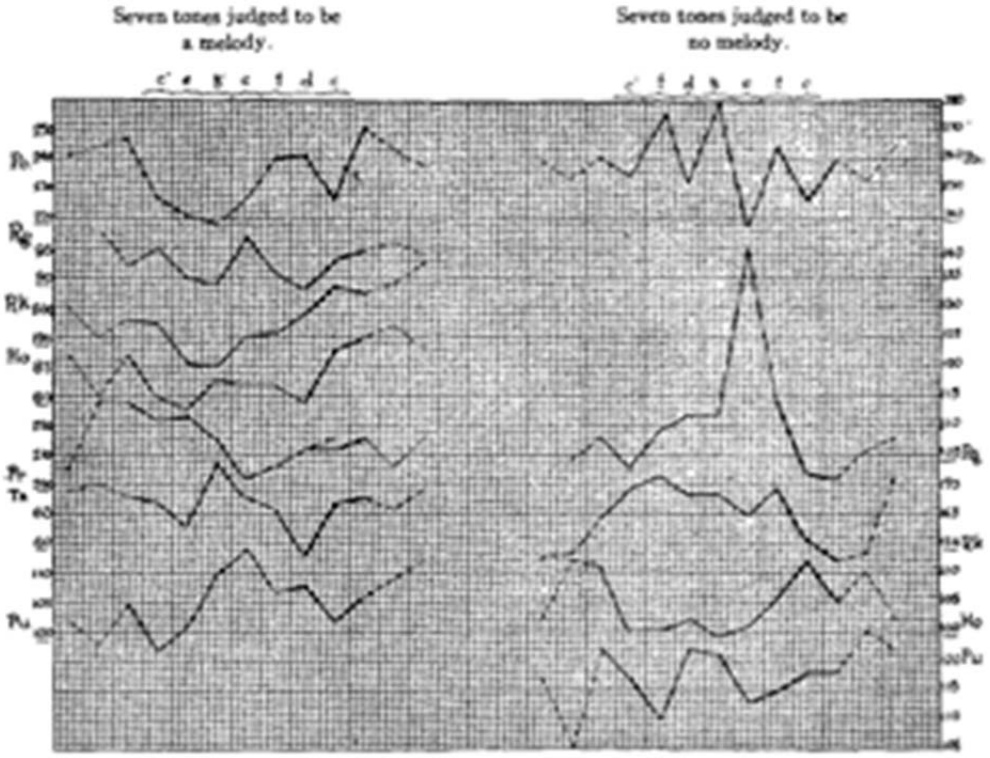


FIGURE NO. 3. EFFECTS OF A MELODY AND A NON-MELODY CONTRASTED. Each tone sounded for three seconds. Graphs represent rate of tapping during each of these three-second periods. Note general tendency toward increase in rate at close of melody, and absence of such acceleration at close of non-melodic sequence.

Figure 2. A comparison of the rates of finger tapping for melodic and non-melodic tonal sequences. W. V. Bingham, "Studies in Melody," p. 79.

Bingham concluded that unity, which distinguished a melody from a mere succession of tones, did not arise from the tones themselves, but rather "it is contributed by the act of the listener." When the tones followed "in such a manner that the hearer can react adequately to each," they are "felt" as related. Then, Bingham explained, when the tonal series ends in such a fashion that the continuous reaction of the hearer is also completed, "the balanced muscular 'resolution' gives rise to the feeling of finality, and the series is recognized as a unity, a whole, a melody" (Bingham 1910: 87-88). So, as a melody was sounded, a parallel muscular response occurred. As the melody resolved, so did the muscular response. This resolution of the muscular response led to the recognition of the tone series as a melody. The muscular response mediated between the sounded tones and the experience of musical melody. It should be noted that at its core this was an aesthetic question, which Bingham in turn sought to answer through a measurement of motor response. He found a correlation between musical melody and motor mechanism. Musical melody could affect the movement of the body but not be recognized as such until after the fact.

A testament to the growth in scholarly interest in the bodily effects of music as well as Bingham's leadership in the field, Bingham authored the introduction to an edited collection, *The Effects of Music* (1927). The collection was a compilation of several of the submissions to a 1921 essay contest sponsored by the American Psychological Association asking for an exploration of the effects of music.[2] Thomas Edison had supplied the $500 prize. The studies ranged from music's effects on mood to blood pressure to digestion as well as the effects of sequencing and selection of music programming. Bingham explained that the goal of the book was to both respond to the thoughtful listener's inquiry, "What is this music doing to me?" and a challenge to science to more adequately explain the "nature and mysteries of musical effects" (Bingham 1927/2001: 1).

The complexity of the variables affecting the musical experience was compounded by the personal background and training of the listener, he explained, confounding scientific study of music. Even isolating the two major determiners of music experience to the musical selection and listener, the listener in particular is impossible to generalize, varying in age, education, training, personality, talent and musical ear (Bingham 1927/2001: 2-3). A single piece of music could have widely varying effects. Bingham presented the example of an individual whose work on a hand-loom was steady and rapid while listening to jazz. Another worker became so agitated and distracted by the same piece that she exerted too much pressure on the apparatus that she had to concentrate more in order to avoid errors; she accomplished less than if she hadn't been subjected to music at all (Bingham 1927/2001: 3).

Bingham suggested that this example underscored the finding of his earlier experiments on the motor effects of melody, explaining that, "every listener who is at all musical, everyone to whom the succession of tones means anything, responds by exhibiting very slight but characteristic changes of muscular tonicity" (Bingham 1927/2001: 6). Further, he asserted, it was the listener, in responding to successive tones and binding them together, perceiving them as a unity, that created the melody. It was thus imperative to better combine the efforts of experimental psychologists and musical aesthetics to better understand the individual listener's experience of music. I want to emphasize this point: the leaders of this line of study believed that individual responses to music varied widely and were barely comprehensible despite the combined efforts of several disciplines to document musical effects with scientific precision.

Tone Tests and Re-Creation Recitals

I highlight this last point to underscore the ambitious nature of the Edison Company's program of what they termed demonstration recitals or tone tests. Launched in 1914, the Tone Tests and Re-Creation Recitals were an almost entirely Edison Company phenomenon, in part a product of Edison's anxiety about

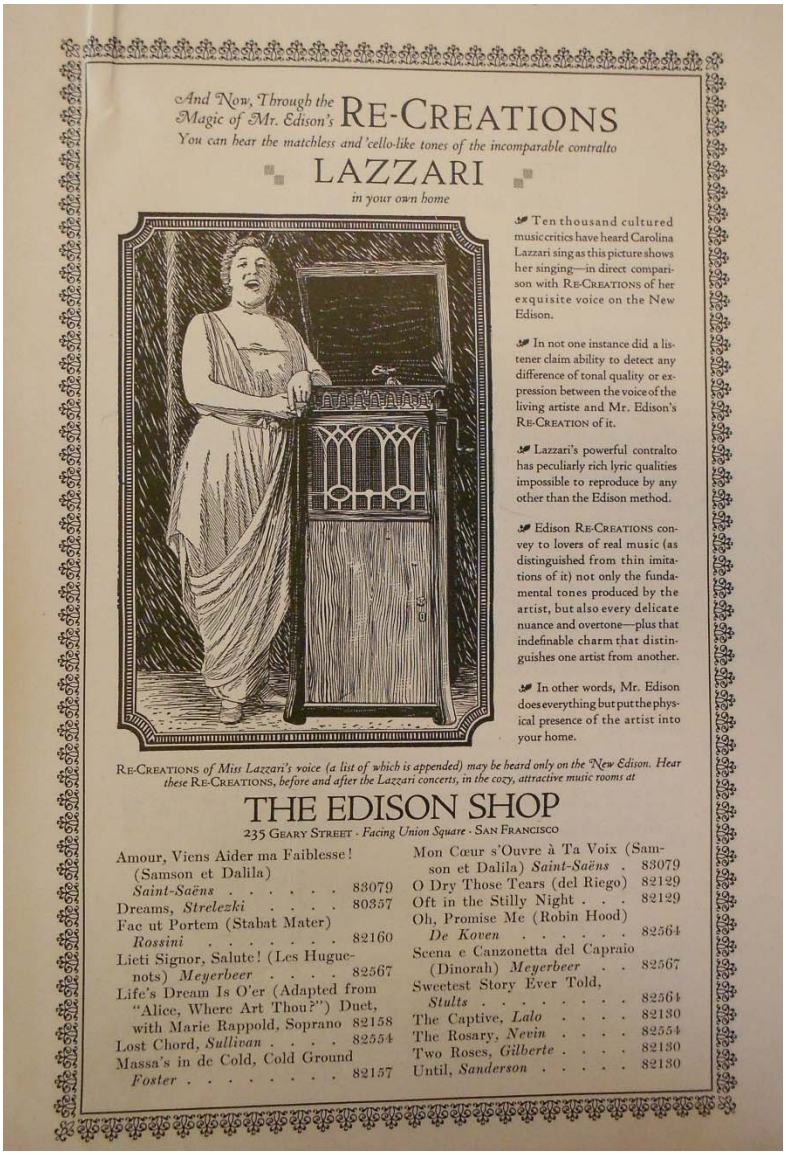
accusations of charlatanry rooted in his early years as an inventor in a late nineteenth-century American landscape replete with professional swindlers and carpetbaggers (DeGraaf, Archivist, Thomas Edison National Historic Park, personal communication, November 8, 2011). Instead, Edison wanted consumers to embrace his phonograph and cylinders because of their superior sound quality and the Tone Tests and Re-Creation Recitals were an opportunity for the public to experience the superiority of the Edison machine over others. It was also an opportunity for consumers to learn how to properly operate the device to generate a unified product. Further, I argue, the demonstration recitals were a means of training the disparate listeners Bingham studied to receive the phonograph's sound in a very specific way.

Demonstrators, supervised by the Phonograph Division of the Edison Company, would be dispatched to organize Tone Tests in cooperation with local Edison distributors and shops. The recitals would take place in stores that sold Edison products, churches, schools, YMCAs, and private homes. One was held on a Lake Erie ferry. The audiences ranged in size from a dozen to as many as 150 people. Usually the demonstrators initiated the Tone Tests but at times they would be requested for example in the case that a school district was interested in purchasing a phonograph for the district. This sometimes led to friction between the demonstrators and the local distributors. Distributors complained that the demonstrators would sweep into town and, unaware of local mores, would plan recitals in the wrong part of town or among the wrong kind of people and in the process alienate actual prospective buyers (Maxwell, personal communication, April 24, 1915).[3]

The Tone Tests were supposed to approximate a proper concert so the demonstrators weren't allowed explicitly advertise or promote the purchase of the Edison machine at the recitals (Maxwell, Internal Phonograph Division Bulletin, April 1, 1914; Maxwell, personal communication, April 17, 24, and 30, 1915). Sometimes lectures on music history by an academic or a music critic would be included.[4] Programs listing the pieces to be performed by the phonograph were distributed. The audience applauded between pieces. The demonstrators would follow up with attendees and also report back to the Edison Company on the location and size of the Tone Test, the pieces performed, and a few sentences summarizing the audience reaction. These reports were initially just handwritten letters but were later standardized with an official form (Maxwell, reports and personal communication, April 21, 22, and 26, 1915, Amy 4, 5, and 16, 1915, and June 6, 21, and 23, 1915).

The Edison Company eventually caved to consumer pressure and began signing well-known performers to make recordings. These recording artists were then recruited to participate in the Tone Tests. These *Re-creation* Recitals juxtaposed the live performer against the recording of his or her voice (see figure 3). The recording artist would sing a duet with the phonograph, and then he or she would stop and allow the phonograph to perform solo. Sometimes, in an act of generosi-

ty, the phonograph would go silent, and the recording artist would be allowed to perform solo. Sometimes the lights were switched off so that audiences couldn't tell whether machine or human were singing (this usually brought the house down). Audiences appeared to appreciate the additional human element offered by the re-creation recitals. One respondent noted that she liked when the recording artist gestured to the phonograph, humanizing the machine (W. Maxwell, personal communication, June 21, 1915).



And Now, Through the Magic of Mr. Edison's RE-CREATIONS

You can hear the matchless and 'cello-like tones of the incomparable contralto

LAZZARI

in your own home

Ten thousand cultured music critics have heard Carolina Lazzari sing as this picture shows her singing—in direct comparison with RE-CREATIONS of her exquisite voice on the New Edison.

In not one instance did a listener claim ability to detect any difference of tonal quality or expression between the voice of the living artiste and Mr. Edison's RE-CREATION of it.

Lazzari's powerful contralto has peculiarly rich lyric qualities impossible to reproduce by any other than the Edison method.

Edison RE-CREATIONS convey to lovers of real music (as distinguished from thin imitations of it) not only the fundamental tones produced by the artist, but also every delicate nuance and overtone—plus that indefinable charm that distinguishes one artist from another.

In other words, Mr. Edison does everything but put the physical presence of the artist into your home.

RE-CREATIONS *of Miss Lazzari's voice (a list of which is appended) may be heard only on the New Edison. Hear these* RE-CREATIONS, *before and after the Lazzari concerts, in the cozy, attractive music rooms at*

THE EDISON SHOP

235 GEARY STREET - *Facing Union Square* - SAN FRANCISCO

Amour, Viens Aider ma Faiblesse! (Samson et Dalila) *Saint-Saëns* 83079
Dreams, *Strelezki* 80357
Fac ut Portem (Stabat Mater) *Rossini* 82160
Lieti Signor, Salute! (Les Huguenots) *Meyerbeer* 82567
Life's Dream Is O'er (Adapted from "Alice, Where Art Thou?") Duet, with Marie Rappold, Soprano 82158
Lost Chord, *Sullivan* 82554
Massa's in de Cold, Cold Ground *Foster* 82157
Mon Cœur s'Ouvre à Ta Voix (Samson et Dalila) *Saint-Saëns* . 83079
O Dry Those Tears (del Riego) 82129
Oft in the Stilly Night . . . 82129
Oh, Promise Me (Robin Hood) *De Koven* 82564
Scena e Canzonetta del Capraio (Dinorah) *Meyerbeer* . . 82567
Sweetest Story Ever Told, *Stults* 82564
The Captive, *Lalo* 82130
The Rosary, *Nevin* 82554
Two Roses, *Gilberte* 82130
Until, *Sanderson* 82130

Figure 3. Promotional material for a Re-Creation Recital, Box 18, William Maxwell Files, Edison Historic Site Archives.

The goal of these Re-creation Recitals remained to showcase the fidelity of the Edison instrument's sound. The recording artists were therefore encouraged to conform their voices to match the sounds generated by the phonograph (Thompson 1995; Milner 2007). Certainly they were forbidden from "showing up" the phonograph recording of themselves with the bending of notes or additional musical flourishes or simply singing louder. Advertising copy (see figure 4) declared, "The Artist's Tone is the Edison Tone," perhaps more revealing of the machinations of the Re-Creation Recitals than the marketing unit intended.

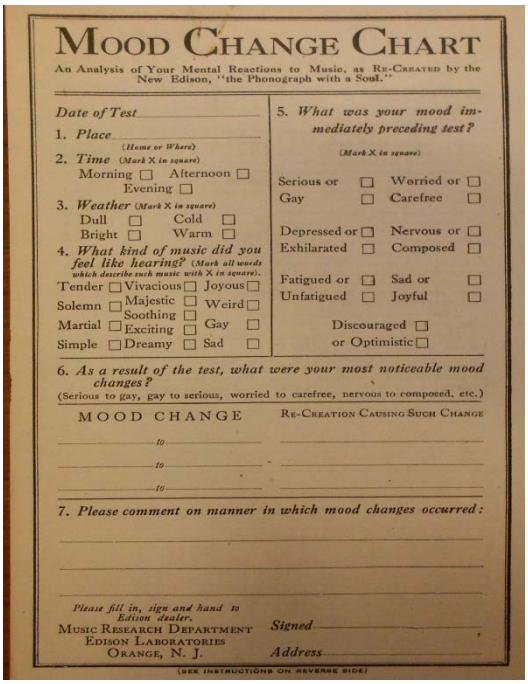
Figure 4. Advertising copy developed by the Edison Company, distributed to shop owners for purchase, Box 2, William Maxwell Files, Edison Historic Site Archives.

Aiming to illustrate this equivalence of the artist's and phonograph's tone, the demonstrators would instruct the audience before, during, and after (in follow-up letters) the concert on what to listen for, sometimes to the point of irritating audience members.[5] They emphasized the fidelity and clarity of the phonograph's tone and, unsurprisingly, deemphasized the scratching and buzzing sounds of the instrument. The demonstrators did *not* discuss the music itself. They did not discuss the formal structures of the pieces, nor the chord progressions, nor the interesting melodic elements. They were not training aesthetic listeners. Instead, the Re-Creation Recitals functioned to highlight good sounds to the point that they sonically eclipsed bad ones.

This was not musical expertise. The phonograph did not make its listeners more musical. Nor did the phonograph communicate the pre-existing musical sophistication of its owners, if they had any. This is not to say, however, that the Tone Tests and Re-creation Recitals did not cultivate an expertise of sorts. The audiences were taught to be experts on sound fidelity. Further, they were trained to be experts at a new kind of listening. They could separate music from noise and to ignore, possibly not even hear, the latter. The Tone Test and Re-Creation Recitals functioned, through centralized and systematized demonstration protocol, to standardize both the sound object and listening experience.

Mood Change Tests

In 1921, under Bingham's leadership, the Edison Phonograph Division mailed out thousands of surveys, asking individuals to list the music they associated with certain emotions or moods. From the responses, Bingham developed the Mood Change Test. The Mood Change Test consisted of filling out part of the Mood Change Chart (see figure 5), listening to various music pieces, and then completing the chart.



MOOD CHANGE CHART

An Analysis of Your Mental Reactions to Music, as Re-Created by the New Edison, "the Phonograph with a Soul."

Date of Test

1. Place (Home or Where)

2. Time (Mark X in square)
Morning ☐ Afternoon ☐
Evening ☐

3. Weather (Mark X in square)
Dull ☐ Cold ☐
Bright ☐ Warm ☐

4. What kind of music did you feel like hearing? (Mark all words which describe such music with X in square).
Tender ☐ Vivacious ☐ Joyous ☐
Solemn ☐ Majestic ☐ Weird ☐
Soothing ☐
Martial ☐ Exciting ☐ Gay ☐
Simple ☐ Dreamy ☐ Sad ☐

5. What was your mood immediately preceding test? (Mark X in square)
Serious or ☐ Worried or ☐
Gay ☐ Carefree ☐
Depressed or ☐ Nervous or ☐
Exhilarated ☐ Composed ☐
Fatigued or ☐ Sad or ☐
Unfatigued ☐ Joyful ☐
Discouraged ☐
or Optimistic ☐

6. As a result of the test, what were your most noticeable mood changes?
(Serious to gay, gay to serious, worried to carefree, nervous to composed, etc.)
MOOD CHANGE — Re-Creation Causing Such Change
to
to
to

7. Please comment on manner in which mood changes occurred:

Please fill in, sign and hand to Edison dealer.
Music Research Department
Edison Laboratories
Orange, N. J.
Signed
Address
(See instructions on reverse side)

Figure 5. Mood Change Chart, Box 18, William Maxwell Files, Edison Historic Site Archives.

Hoping to increase the sample size of the project, the Edison Company encouraged the public to visit an Edison shop to take a Mood Change Test and/or host "Mood Change Parties" in their private homes. Completed charts could be mailed in the Music Research Department of the Edison Laboratories. At least one Edison shop owner institut-

ed the Mood Change Test as part of the application process for positions at the store (Maxwell, personal communication, April 9, 1921). Beginning in the Spring of 1921, in perhaps one of the earliest instances of the now time-worn tradition of using undergraduate students in introductory psychology courses for large scale studies, Mood Change Parties were performed on college campuses. These campuses included universities in the local West Orange, New Jersey area as well as Harvard and Yale (Maxwell, personal communication, March through May, 1921). There was also some discussion of combining Mood Change Parties with a show of large oil paintings at the Chicago Academy of Fine Arts.

Advertisements promoted the Mood Change Tests as sophisticated and groundbreaking science. A 1921 print advertisement that ran in *Colliers*, *Lady Home Journal*, and *Cosmopolitan* featured celebrity Private Investigator William Burns beside an Edison Phonograph and an enlarged copy of his completed Mood Change Chart. The copy below read: "It registers a decided mood change but it represents the emotional effects of music only on one man. Mr. Edison needs thousands of these charts because his research work must be conducted as the law of averages" (Maxwell, personal communication, November 22, 1920).

Demonstrators were deputized into the grand experiment. Internal communication from William Maxwell, the President of the Phonograph Division of the Edison Company, explained that the Mood Change Charts were part of "one of the most interesting experiments ever made in the world of music" and encouraged them to assist Bingham and Edison in "THIS NOVEL AND EPOCH-MAKING EXPERIMENT" (Maxwell, personal communication, January 12, 1921). Later, in response to a request for guidance on what music should be used at Mood Change Parties, Maxwell noted, "These Mood Change parties represent real research work. We are not attempting to confirm what we think. We are endeavoring to learn something new" (Maxwell, personal communication, February 22, 1921).

Maxwell anticipated that they would eventually collect thousands, possibly even hundreds of thousands of completed Mood Change Charts (Maxwell, personal communication, February 22, 1921). Certainly the charts provided extensive data for Bingham's studies on the mood effects of music. They also resulted in The Golden Treasury of Music, essentially compilation lists, ordered according to mood. These moods were descriptive, such as "physically stimulating," "emotionally stirring," "tenderness," "imagination's fancy."[6] Below the mood was a list of five to twenty selections from the Edison collection of recordings along with their casting mold number, usually a mix of popular pieces and repertoirey ones.

Bingham's work on the motor and mood effects of music was made marketable. Also, such lists indicate a new approach to the listening process. Previous phonograph-listening practices consisted of choosing a specific piece or performer. The listening experience would unfold from that choice. The Golden Treasury of Music instead encouraged the listener to reverse this process and anticipate their desired mood first, to think of the listening experience in terms of their de-

sired mood change – Want to feel tenderness? Choose from the list below! The specific piece or performer becomes unimportant.

We can understand this process as training the public to approach their music-listening experience in an entirely new way and, as a consequence to listen in a new way as well. In the Spring of 1921 Maxwell received a letter from an enthusiastic Mood Change Test taker that complimented the Edison Company on their project, explaining that he believed the Mood Change Tests will teach the children of "regular American laborers" to play music and sing music. Forwarding this letter to Edison, Maxwell noted "If everybody gets this angle, we shall have the world by the tail." Edison replied, "I think many will" (Maxwell, personal communication, February 18, 1921). The subjective experience of listening to music made measurable and objectified by psychologists had become manipulable, and marketable. Sound objects became sound products.

Conclusion

The introduction of a uniform, material sound object that could penetrate into new spaces of listeners' lives contributed to new listening practices. Long term, we see the development of ever more sound objects, sound products – elevator music, background music, microbranding, and playful reactions by contemporary composers like Brian Eno or Robert Rich to these products. The phonograph provided a means of standardization and normalization not previously possible in music halls or laboratories. The rise of the phonograph – rather paradoxically since it was more mobile and accessible to individuals – created the possibility for a new experience of sound designed for the lowest common denominator of mass listening. Psychologists like Bingham furthered this, fueling new non-listening practices.

The measurement and subsequent standardization of listening practices resulted in an entirely new kind of listening, one in which the listener heard less. Though this development was certainly a gradual one, the Re-creation Recitals fittingly capture the separation of the listener from a direct experience of the generation of music. Audiences would experience the violinist struggle to eliminate the scratching sounds of her bow or the vocalist serenely hit a high, clear note. Then the wooden box would sound. They were standing there next to each other, deliberately coordinated in their performances, then uncoordinated. Again, the demonstrators emphasized fidelity of tone, not the quality of the composition or performance. The artist's tone and the Edison tone were one and the same.

Once bodily and mood reactions to music became measurable both psychologists and purveyors of mass-market technology sought to locate and mobilize this knowledge. The form of listening at the threshold of consciousness – threshold listening – was achieved through the objectification of subjectivity. Many music historians and musicologists have written about the social and cultural policing of

listening behavior (Weber 1975; Johnson 1995). In this case, music itself (in new and specific contexts) functioned to make people behave a certain way – which, if its role was entirely functional, raises the question of whether it is even music at all. And if it is not music then what is it?

Alexandra Hui received her PhD in History at the University of California, Los Angeles. She is currently an Assistant Professor of History at Mississippi State University. She has published a monograph, *The Psychophysical Ear: Musical Experiments, Experimental Sounds, 1840-1910* (MIT Press, 2012) as well as several articles on the relationship between psychophysical studies of sound sensation and music culture. She is also a co-editor and contributor to the 2013 *Osiris* volume on music, sound, and the laboratory.

Notes

1 Johannes Brahms is another example. Brahms was troubled by the lack of rigor in musical education and training in younger generations that listened to music without generating it. He instead emphasized a "proper" listening rooted in an ability to play. Brahms preferred an audience full of listeners who could experience his musical performances as if they were playing the music themselves (Botstein 1990).

2 The winner was the experimental psychologist Margaret Washburn of Vassar College. Washburn had examined the role of repetition of musical pieces on their perceived pleasantness or unpleasantness. Bingham, along with Harry Porter Weld of Cornell University and Harry Dexter Kitson of Columbia University, were judges.

3 All William Maxwell personal communications, bulletins, and reports are located in the William Maxwell Files at the Edison Historic Site Archives.

4 A Frank Hildebrand, for example, gave a series of Lecture-Recitals with such titles as "The Growth of Music", "Music and Life," and "The Opera" in 1915. Programs held in William Maxwell Files, Edison Historic Site Archives, Thomas Edison National Historic Park.

5 "Mrs. Rouland also said that she didn't like very much the idea of Mr. Fuller [the demonstrator] acting as though the audience knew nothing whatsoever about music, and had to be told every point to look for in the records…. Mrs. Edison's [likely no relation to Thomas Edison] chief objection was that the whole thing seemed to be more mechanical than artistic. The machine was too much in evidence and the artistic part too much in the background. She thought Mr. Fuller's efforts to be funny did not get over very successfully." Maxwell, personal communication, June 21, 1915, William Maxwell Files, Edison Historic Site Archives, Thomas Edison National Historic Park.

6 Box 18, William Maxwell Files, Edison Historic Site Archives.

References

Bingham, Walter (1910): "Studies in Melody", *The Psychological Review: Monograph Supplements*, 12:3.

—— (1927/2001): "Introduction", Max Schoen (ed.): *The Effects of Music: A Series of Essays*, edited by Max Schoen, London: Kegan Paul, Trench, Trubner & Co, 1-9. Reprinted by Routledge in 1999 and 2001.

Bjisterveld, Karin (2008): *Mechanical Sound: Technology, Culture, and Public Problems of Noise in the Twentieth Century*, Cambridge, MA.: The MIT Press.

Botstein, Leon (1990): "Time and Memory: Concert Life, Science, and Music in Brahms's Vienna", Walter Frisch (ed.), *Brahms and his World*, Princeton, New Jersey: Princeton University Press.

Bücher, Karl (1899): *Arbeit und Rhythmus*, Leipzig: Teubner.

—— (1893/1907): *Industrial Evolution*, translated from 3rd German edition by S. Morely Wickett, New York: Henry Holt and Company.

Hanslick, Eduard (1854/1957) *The Beautiful in Music*, edited by Morris Weitz and translated from the 7th German edition by Gustav Cohen, New York: Liberal Arts Press.

Hui, Alexandra (2011): "Instruments of Music, Instruments of Science: Hermann von Helmholtz's Sound Sensation Studies, his Classicism, and his Beethoven Sonata", *Annals of Science*, 68:2, 149-177.

—— (2012a): "The Bias of 'Music-Infected Consciousness': the Aesthetics of Listening in the Laboratory and on the City Streets of Fin-de-Siècle Berlin and Vienna", *Journal of the History of the Behavioral Sciences*, 28:3, 236-250.

—— (2012b): The *Psychophysical Ear: Musical Experiments, Experimental Sounds, 1840-1910*, Cambridge, MA.: The MIT Press.

Jackson, Myles (2006): *Harmonious Triads: Physicists, Musicians, and Instrument Makers in Nineteenth-Century Germany*, Cambridge, MA.: The MIT Press.

Johnson, James (1995): *Listening in Paris: a Cultural History*, Berkeley: The University of California Press.

Kennaway, James (2010): "From Sensibility to Pathology: The Origins of the Idea of Nervous Music Around 1800", *Journal of the History of Medicine and Allied Sciences*, 65, 396-426.

Lipps, Theodor (1902): "Zur Theorie der Melodie", *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*, 27, 225-263.

Lipps, Theodor (1905): *Psychologische Studien*, 2nd ed. Leipzig: Verlag der Dürr'schen Buchhandlung.

Lorenz, Carl (1890): "Untersuchungen über die Auffassung von Tondistanzen", *Philosophische Studien*, 6, 26-103.

Meyer, Max (1900): "Elements of a Psychological Theory of Melody," *Psychological Review*, 7:3, 241-273.

—— (1904): "Unscientific Methods in Musical Esthetics", *Journal of Philosophy, Psychology and Scientific Methods*, 1, 707-715.

Milner, Greg, (2007): *Perfecting Sound Forever: An Aural History of Recorded Music*, New York: Faber & Faber.

Myers, Charles (1927): "Individual Differences in Listening to Music", Max Schoen (ed.). *The Effects of Music*, New York: Routledge, 10-37.

Ortmann, Otto (1927): "Types of Listeners: Genetic Considerations", Max Schoen (ed.): *The Effects of Music*, New York: Routledge, 38-77.

Pinch, Trevor & Karin Bijsterveld, (2003): "Should One Applaud? Breaches and Boundaries in the Reception of New Technology in Music", *Technology and Culture*, 22, 536-559.

Pinch, Trevor and Frank Trocco, (2002): *Analog Days: The Invention and Impact of the Moog Synthesizer*, Cambridge, MA.: Harvard University Press.

Schafer, R. Murray (1977/1994): *The Tuning of the World: Toward a Theory of Soundscape Design*, New York: Knopf. When reprinted in 1994, retitled to *The Soundscape: Our Sonic Environment and the Tuning of the World*.

Sterne, Jonathan, (2003): *The Audible Past: Cultural Origins of Sound Reproduction*, Durham, North Carolina, Duke University Press.

Stumpf, Carl (1888): "W. Wundt, Grundzüge der physiologischen Psychologie; E. Luft, Über die Unterschiedsempfindlichkeit für Tonhöhern", *Vierteljahrsschrift für Musikwissenschaft*, 4, 540-550.

—— (1890): "Über Vergleichungen von Tondistanzen", *Zeitschrift für Psychologie und Physiologie der Sinneorgane*, 1, 419-462.

—— (1891): "Wundt's Antikritik", *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*, 2, 266-293.

Thompson, Emily (1995): "Machines, Music, and the Quest for Fidelity: Marketing the Edison Phonograph, 1877-1925", *The Musical Quarterly*, 29:1, 131-171.

—— (2002): *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900-1933*, Cambridge, MA.: The MIT Press.

Weber, William (1975): *Music and the Middle Class: The Social Structure of Concert Life in London, Paris and Vienna*, New York: Holmes and Meier Publishers.

Weinmann, Fritz (1904): "Zur Struktur der Melodie", *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*, 38, 238-239.

Wundt, Wilhelm (1891): "Ueber Vergleichungen von Tondistanzen", *Philosophische Studien*, 6, 616-617.

Ziemer, Hansjakob (2008): *Die Moderne hören: Das Konzert als urbanes Forum 1890-1940*, Frankfurt/New York: Campus.

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Towards the Gigantic: Entification and Standardization as Technologies of Control

By Jens Røyrvik & Petter G. Almklov

Abstract

This paper is based on studies of how standardized entities work as elements in a regime to control risk and hazardous work. Drawing on empirical examples from the petroleum industry and infrastructure sectors, we illustrate not only the mechanisms by which particular modes of entification are involved in regimes of control but also their shortcomings and seductive powers as representations. We show how the world is semantically captured and organized to consist of controllable standardized entities by the organizational regimes in the industries we have studied. This mode of entification is particularly effective in providing transcontextual mobility, as the registered entities can enter the ever-expanding information infrastructures of modernity. Although information infrastructures comprise the standards regulating communication, they commonly materialize in information and communication technologies (ICT) that provide an increasing number of effective and ubiquitous pathways through which standardized semantic signs can move and have effects. This is a core concern in the increasing focus on management by detailed regimes of accountability, measurement and standardization seen in most modern organizations. These developments, combined with the representational shortcomings of the standardized entifications, lead to a movement *towards the gigantic*. An ever-increasing number of signs with increasingly higher granularity are produced in order to control an ever-elusive non-entified world.

Keywords: Entification, standardization, work, risk, the gigantic, information infrastructures

Røyrvik, Jens & Petter G. Almklov: "Towards the Gigantic", *Culture Unbound*, Volume 4, 2012: 617-635. Hosted by Linköping University Electronic Press: http://www.cultureunbound.ep.liu.se

Introduction

This paper discusses how risk and work are represented as standardized classes of entities that can be manipulated and controlled. We draw on empirical examples from risk management in offshore shipping and in the control of work by procedures and governing documentations in the petroleum and infrastructure sectors. Based on these examples, we argue that the discourses or ideologies in which these representations operate move *towards the gigantic*; in Heidegger's sense of this term, an ever-increasing number of entities is produced to capture a world that remains ever elusive.

The gigantic is important in Heidegger's questioning of *technology*, which presents descriptions of modernity's metaphysics. In this article, we present descriptions of concrete manifestations of the metaphysics understood as *technological articulations*. Furthermore, we show that this empirical phenomenon dominates our work life and that the power held by *technology* can be understood by examining concrete standardized entifications and thus *technological* articulations.

The important topic of standardization and entification is recurrent in our research (Almklov 2008; Almklov & Antonsen 2010; Røyrvik 2012). Our theoretical approaches, the terminology we have used, and our fields of study have been somewhat different, however. [1] In this paper, we seek to combine our insights and share some joint reflections on how entification and standardization operate in organizational contexts. A motivation for combining our efforts is to highlight the ubiquity of the phenomena we study and distill general insights from our work. Rather than focusing on the details of our differences, our main objective here is to give an inclusive account of a phenomenon that has been approached from many different angles: standardization and entification as a characteristic of modernity. This account is grounded in an epistemological discussion of how entifications are made to represent the world and how they operate when constructed.

We start by providing a brief overview of our epistemological and ontological viewpoints before we introduce concepts and ideas that form the background for the subsequent discussion. The first section of the empirical presentation focusses on the entification of risk in anchor-handling operations offshore. Here we describe in some detail how the entification of risk is created based on standardized templates and how this is connected to a regime of control. This is followed by a section on procedures in onshore supply bases for oil platforms and in critical infrastructure sectors. Here we discuss the entification of work in procedures and in the discourse of work as commodified tasks, tracing some related developments. Finally, we discuss some combined insights from our observations. We argue that they all can be seen as instantiations of a modern ideology of *technology* (in the Heideggerian sense), and of control by entification, suggesting that information infrastructures (understood as standards providing transcontextual mobility to the entifications) are key enablers of this control. Finally, we conclude by

suggesting that the ambition to gain control by means of ever-more detailed entifications, combined with the opportunities provided by new information technologies, leads to development towards the gigantic.

Epistemological and Theoretical Background

The argument of this paper is based on Bateson's theory of meaning (2000), Heidegger's questioning of technology (1977a) and Larsen's reflections on entification (2010). A common thread in all three perspectives is that understanding and questioning the ontological status of the object[2] is a way of understanding contemporary epistemology as representations that belong to modernity and science practices.

Bateson (1979, 2000) argues that reality becomes meaningful by the experience of differences. Reality is not in itself differentiated, but by recognizing something as different from something else, both "things." although different from each other, emerge as something. Thus, everything known to man appears and is experienced as a whole by differences projected on to that non-differentiated whole (Johansen 2008). The map (i.e., our representations) is not the territory; instead, it consists of differentiations based on selected aspects of reality (Almklov 2008). Our perception of reality, regardless of its ontological status, is a matter of differentiation and abstraction. Representations are of another logical type than the represented, and the reality beyond these is an endless reservoir of new (potential) abstractions. Things, objects, and entities are constructed gatherings of such aspects.

Heidegger (1977a) writes that difference and information can obtain a specific form in modernity, a form that in essence is instrumental. Modernity's "way of occasioning." which is causality, belongs to technology and the "the-bringing-forth" of the world as objects related and separated by relations of cause-effect. This, Heidegger contends, is the essence of *technology*. In the following discussion, we will italicize *technology* to refer to this understanding of technology (as modernity's entification and ascription of causes and effects), to separate it from everyday usages of the word.

Larsen uses the term *entification* to describe how aspects of reality are solidified and elevated into something more real and more important than the rest of reality. The concept of entification is employed to describe how "thinghood" to an increasing extent is ascribed to less concrete, relational phenomena. "[S]omething inchoate congeals into a thing (Latin: *ens*), a unit, a category with discernible boundaries" (Larsen 2010: 155 [emphasis in original]).

An important feature of modernity is that the objects brought forth by *technology* enter cause and effect relations beyond their immediate contexts. Things, objects or entities gain mobility when they conform to certain "rules of abstraction" (Almklov 2008: 881). Entification in modernity must be seen in parallel with

standardization. In modern life, differentiation and entification more often than not are disciplined by the standards guarding the entrance of an information infrastructure. Information infrastructures are conventional and technical arrangements by which information adhering to these rules can travel across contexts. These arrangements are essential arrangements by which the *technological worldview* gains its power. Modern science and modern society is based on the transcontextual mobility[3] provided by disciplined standardizing entifications. Consider, for example, the difference in transcontextual mobility between the systematic, standardized taxonomies of biological species as pioneered by Carl von Linné and the typical folk taxonomies found across the world of the same animals. Bureaucracies and science alike gain power over remote areas and contexts by controlling standardized entities, maps, samples, records, measurements and so on. These "immutable mobiles" can be combined, counted and compared and are sources of the control and power gained in Latour's (1987) "centers of calculation."

Bowker and Star (1999) and several others have demonstrated that standards are fundamental elements of information infrastructures. The standards are in one sense the essence of the infrastructure as such. They regulate the kind of information that is allowed to be mobile (Hanseth & Monteiro 1997). This is what one can call a *formalistic*[4] understanding of information infrastructures. They are underlying rules of how information must be structured to gain mobility. These are usually manifested or materialized in some way or another. (A substantivist conception will typically focus on infrastructures as the material technologies through which information travels.) While they can be as simple as a list on a piece of paper or a filing cabinet, computer-based infrastructures are clearly the most relevant manifestations of information infrastructures today. These provide for an extreme spatial and contextual mobility for standardized data and are therefore illustrative examples of what infrastructures really *do*. The World Wide Web is indeed worldwide, and standardized data can move everywhere and be compared and combined almost indefinitely. For example, today it is in theory unproblematic to combine and compare scientific sample data from different parts of the world, provided that they are collected and recorded in adherence with the same standards.[5] Within science studies, the importance of decontextualization of standardized entities and their transcontextual mobility is recognized as essential elements of modern science. We also find similar phenomena in organizations, in trends and in increasingly fine-grained and invasive situated work contexts where entification and standardization are more important as control mechanisms.

Understanding infrastructure as both cognitive and institutional, Ciborra and Hanseth (1998: 321-322) point out that information infrastructures "as formative contexts, shape not only the work routines, but also the ways people look at practices, consider them ´natural´ and give them their overarching character of false necessity." As a formative context, infrastructure concretizes the mechanisms of technology because it is explicitly based on standards and institutionalized by

reifying practices. As information infrastructures are primary means of communication and control, standardized entifications proliferate ceaselessly into new areas and arenas. Thus, a discourse based on standardized entities increasingly dominates modern contexts. Information infrastructures provide trans-contextual mobility for the standardized entifications of *technology*, provided that they adhere to standards.

The last decades have seen an "explosion" of accountability and transparency as governing principles in the public and private sectors (Power 1994). This has also affected the public and private industries we have studied in the form of an increased focus on measurement, reporting, key performance indicators (KPI), procedures and so on. Accountability and transparency are key elements of the organizational forms found not only in most of the public sector and new public management (NPM) today but also in most private companies (Hood 1991; Hood 2007). The dominating vehicles of transparency in both post-NPM public organizations and in many private sector organizations are standardized reporting systems, KPIs, checklists and so on. This trend is strengthened by the increasing reliance on information and communication technologies (ICT) in management and society, which makes it easier to make the systems of governance even more detailed. Means of control based on accountability have particularly been important in controlling safety in both private and public organizations (see e.g., Hohnen and Hasle 2011).

In sum, these perspectives provide the basis of our analysis. We understand entities as abstractions that arise out of the unrepresented world based on perceived differences. *Technology* is a specific way of revealing the world that dominates modernity and is characterized by the creation of specific kinds of entities. Infrastructures are important for this specific revelation to function because the trans-contextual aspect of entities is essential to technological articulations.

Method and Case

The examples we will discuss here are cases employed to illustrate the theoretical basis of the paper. The empirical data are therefore not an outcome of a deliberate design, but examples from a diverse research portfolio. Although not all of it is presented here, much of our previous research has been concerned with entification and standardization. Participant observation is a method that is very well suited to investigate the relationship between standardizing discourses and the local and particular, and forms the basis for our insights and understanding. However, we have also conducted interviews and document studies. The empirical discussion of the anchor-handling case is the most exhaustive as it goes into some detail on the entification processes and the standardizing infrastructures involved. This case is primarily based on ethnographic fieldwork, whereas the discussions of procedures are drawn from projects that are primarily based on semi-structured

interviews. Studying representations of practice, such as documents, procedures, forms, checklists and computer visualizations, combined with participant studies of the practices they are entangled with has been particularly relevant and fruitful for the present argument.

Conquering the Sea Piece by Piece: Risk Governance in Anchor Handling

Entification of the work conducted by anchor handlers is an important part of Røyrvik's (2012) PhD thesis, "The Weather window, a technological articulation in the oil industry's conquest of nature." Sailors conduct complex work by engaging in the world as tool users, and the thesis focuses on how their work and nature are transformed into entities by scientific procedures, such as the one presented in the forthcoming example of risk governance.

The focus on *risk and safety* is intense in the North Sea, and therefore provides a scientific regime that decides how operations can be conducted, when or if they can be started, who can participate, and how many resources are needed in order to do it. This is very much the case for operations conducted by *Anchor Handling Vessels* (AHV). AHVs are constructed to release and anchor oilrigs to the seabed and to tow them from one location to another. In contrast to oil platforms, which are mounted on the seabed and *produce* oil, rigs are floating installations used more commonly to *search* and drill for oil. When they are used for exploratory drilling, the rigs are frequently moved to new locations where the rig legs are partially submerged (10-30 meters down, depending on the size and type of rig) and anchored to the seabed by two anchors and an anchor system for each leg.

The length of an anchor system is seldom less than a kilometer, stretching from the rig in one end to the anchor embedded in the seabed in the other, and depending on the depth, they can be considerably longer. In addition, the anchor itself is made up of chains, wires, fiber lines, and joints that connect the other components of the system. All components are massive and their dimensions are great; thus, the weight and forces of all anchor systems are considerable and increase with length. As the operations are conducted in the North Sea, 24 hours a day, 365 days a year, the great forces of the systems must be handled during periods of darkness, cold, and not the least, in difficult weather conditions.

In 2007, the Norwegian AHV *Bourbon Dolphin* capsized off the coast of Scotland. In brief, the weight of the anchor system combined with the current dragged the vessel down, causing the death of half the crew, eight people. This accident led to an increased focus on anchor operations by the safety regime. These operations are sometimes referred to as *advanced operations* because their complexity, and sometimes *extreme operations* because of the weather conditions in the North Sea and the accidents they cause.

It is widely predicted within the oil industry that future operations will be even more challenging, in terms of both weather conditions and economic viability, specifically with regard to the process of searching for oil. The areas in which the industry is established on Norwegian territory are known as both "mature" and "easily accessed." This implies both that the industry is heading away from the mature areas in the hope of finding new unexploited reservoirs of oil, and that these areas are harder to access and more costly to search. The northern regions are examples of areas of interest to the oil industry, and especially during the winter, the AHVs need to operate in harsh environments, in the dark, in subzero temperatures, in harsh winds, and far off the coast. If these operations are to be initiated, they have to be defined as safe. Hence, this section presents the process that produces *technologically* articulated safety, which in turn formally and scientifically allows an operation to begin.

Risk Objects

The responsible oil company has to approve every operation before it can be initiated. An operation can be approved and initiated as long as the risk involved is considered under *technological* control (i.e., it is entified according to specific procedures). The operational risk is analysed and controlled by *risk assessment*, a scientific procedure that more than anything is based on a *risk matrix*. The risk matrix is a tool designed to measure risk and thereby quantify the risk of differentiated time pieces of the operation.

This procedure is taught to the R&D departments of oil companies by the *Norwegian Veritas* (DNV). The course focuses on how to divide the operation into units that are quantifiable and thereby subject to technological manipulation and control. The explicit goal is to gain control of reality by using this analytical procedure and the tools for measuring risk, and through control, create a safe situation where safe is defined as "disappearance of risk" (DNV 2003: k 2).

Risk is defined as "the product of frequency and consequence" (ibid.), and can be expressed by the formula of (Risk = probability X consequence[6]). The risk matrix is the standard that the operation is measured by, and in a way the operation is transformed into different risk objects by this measuring procedure. The premise of the procedure is that any part of the operation in principle can be articulated by a risk object, and the challenge is to find which risk object is the correct one for that specific part of the operation.

RISK MATRIX WITH RISK FACTORS

	Consequence					Increasing probability				
						5 > 5 years	4 > 1 year	3 > 6 months	2 > 14 days	1 < 14 days
	Personal injury **P**	Oil spill to sea **O**	Chemical Group 1 **C**	Economical: Lost rigtime/ equipment **E**	Reputation **R**	Never heard of in the industry	Has occured in Statoil	Occurs several times a year	Occurs several times a month	Occurs once a week
						Highly unlikely	unlikely	Low likelihood	Possible	Probably
1	Fatality	>1000 m3	> 1000 m3	> 50 mill. NOK	National impact. National media coverage.	75	150	225	300	375
2	Serious pers. injury w/possible permanent injury	> 100 m3	> 100 m3	> 25 mill. NOK	Considerable impact. Regional media coverage.	25	50	75	100	125
3	Serious pers. injury	> 1 m3	> 10 m3	> 10 mill. NOK	Limited impact. Local media coverage.	10	20	30	40	50
4	Medical treatment	>0.1 m3	> 1 m3	> 500.000 NOK	Slight impact. Local public awareness.	5	10	15	20	25
5	First aid	<0.1 m3	< 1 m3	< 500.000 NOK	No impact	1	2	3	4	5

Consequence \ Frequency	1	2	3	4	5
1	375	300	225	150	75
2	125	100	75	50	25
3	50	40	30	20	10
4	25	20	15	10	5
5	5	4	3	2	1

Table 1. Risk matrix

The objects are two-dimensional and defined by two scales named *consequence* and *frequency*. The scaling of consequence allows for the measurement of five different qualities: 1) personal injury, 2) oil spill, 3) chemical spill, 4) economic loss, and 5) reputation. Additionally, all these potential consequences are ranged in five different degrees of seriousness or steps on the same scale of consequence. Thus, these consequences are standardized by the same scale, defining death as the same as a hundred cubic meters of oil spill, a hundred cubic meters of chemical spill, the losses of more than 35 mill NOK, and bad reputation. All these consequences are represented by a factor of 75 on the scale of consequence.

The scale of frequency also has five steps or categories. To find the correct grading or numbering, each step is described in three ways; therefore, if something can be expected to happen *less than every six months*, *several times a year*, or has a *low likelihood* of occurring, the risk objects are graded by a factor of 3.

SCALE STEPS	1	2	3	4	5
VALUE	1	5	10	25	75
LEVEL	5	4	3	2	1

Table 2. The scaling of consequence

The five categories are: (1) >5 years, (2) >1 year, (3) >6 months, (4) >14 days and (5) < 14 days. Every step on the scale is given values; on the scale of frequency, level one is given the value of 1, 2 has the value of two and so on. On the other hand, on the scale of frequency step one is given the value of one and step two the value of 5; 3 has been valued as 10, 4 = 25, and 5 = 75. Finally, each step is labeled according to level: the most serious level is 1, and the least serious is level 5.

		Frequency				
		1	2	3	4	5
Consequence	1	##	##	##	##	75
	2	##	##	75	50	25
	3	50	40	30	20	10
	4	25	20	15	10	5
	5	5	4	3	2	1

Table 3. The standard matrix consequence

According to this procedure, an object that is considered level three on the frequency scale and level two on the scale of consequence is identified by a risk degree of 75 (3 x 25). As the objects are defined by two scales, two different risk objects can be represented by the same degree of risk, which is the case for the values of 5, 10, 25, 50 and 75. These values exist in two places in the matrix; thus, two risk objects can be identical by their inherent degree of risk, but different in how that degree is defined. The two risk objects that hold the risk degree of 5 are defined either by frequency 5 and consequence 4, or by frequency 1 and consequence 5. As we will show below, the difference is important because the objects are subject to manipulation, but in order to define an operation as safe enough, the degree of each risk object important.

1– 2– 3– 4– 5– 10– 15– 20– 25– 30– 40– 50– 75– 100– 125– 150– 225– 300– 375

Before the operation can be measured and then transformed into risk objects, the operation is divided and separated into timepieces. The timepieces differ in length and can be more or less detailed. In this case, the operation as a whole is first separated into three operational categories, and then these three timepieces are separated into smaller pieces that are separated into even smaller ones. Finally, the operation is divided in 28 sequences: the first one is the briefing of the crew, and the last one is the setting of the anchor.

	RISK ID	Phase	Operation	Hazard description	Consequence description	Risk Cat.
1	Anchor operation	Mobilization of AHV	Briefing in port	Briefing not performed	Misunderstanding, unclear routines, Delays in operation	E, R
2	Anchor operation	Mobilization of equipment	loading	Uncertified and wrong equipment mobilized. Not correct equipment loaded on correct boat.	Delay in operation	E
3	Anchor operation	Mobilization onTO Arctic	Briefing onboard TO Arctic	Involved personnel not present during briefing prejob meeting on the rig	Misunderstanding, unclear routines	E, P
4	Anchor operation	Mobilization	Communication check	Bad communication	Misunderstanding of information, wrongly performed operations	E,P

Table 4. The operation divided in time-pieces

By definition, every timepiece has some inherent degree of risk, and the next step of the procedure is to define that degree of risk by the means of measurement. All 28 pieces are assessed according their degree of probability and degree of consequence. For example, timepiece nr. 3 is described as "briefing onboard TO Arctic." and the hazard involved in this sequence is considered "involved personnel not present during briefing pre-job meeting on the rig." and the consequence is "misunderstanding, unclear routines." These consequences are considered possibly leading to accidents in the risk categories of personal injury (P) and economic loss (E).

As timepieces are measured by the risk matrix, consequence is considered within the categories of P an E; the timepiece is defined as belonging to level 3. Risk Category P is considered "Serious personal injury." and measured by "E." the potential consequence is ">10 mill NOK." The probability is considered level 3 as well, which means it is considered a "low likelihood." which is the same as "Occurs several times a year" and ">6 months." As the timepiece is measured as level 3 on both the consequence and probability scales, it is graded by 30.

RISK MATRIX WITH RISK FACTORS

	Consequence					Increasing probability				
	P	O	C	E	R	5 > 5 years	4 > 1 year	3 > 6 months	2 > 14 days	1 < 14 days
						Never heard of in the industry	Has occured in Statoil	Occurs several times a year	Occurs several times a month	Occurs once a week
						Highly unlikely	Unlikely	Low likelihood	Possible	Probably
1	fatality	>1000 m3	>1000 m2	50 mill. NOK	national impact. national media coverage.	75	150	225	300	375
2	serious pers. injury / possible permanent injury	>100 m3	>100 m2	25 mill. NOK	considerable impact. regional media coverage.	25	50	75	100	125
3	serious pers. injury	>10 m3	>10 m2	10 mill. NOK	limited impact. local media coverage.	10	20	30	40	50
4	medical treatment	>1 m3	>1 m2	500.000 NOK	slight impact. local public awareness.	5	10	15	20	25
5	first aid	>0,1 m3	>1 m3	100.000 NOK	no impact	1	2	3	4	5

Table 5. The creation of risk objects

According to the measuring procedure, timepiece nr 3 is defined as a problematic object, which is symbolized by the color yellow; thus, the operation should not include this kind of risk object. Therefore, in order to initiate (safely) the operation, the object needs to be manipulated into a less risky object. This step is named "risk reducing measure", as shown in Figure 6. As the hazard description was "Involved personnel not present during briefing pre-job meeting on the rig." the risk reducing measure is "all personnel involved in the operation is present and informed on SOW (i.e., Statement of Work)."

Freq	Cons	RF	Risk reducing measures	Freq	Cons	RF	Actions / comments.
4	4	10	Perform a well planned briefing of all vessels at port. OIM/stabsjef to be present at briefing.	4	5	2	If this is not possible, a marine rep representing Transocean should be present. Procedures to be submitted to AHV as soon as possible after nomination of vessels
4	4	10	Transocean/Viking Mooring to check equipment according to load list. AHV captains to confirm equipment manifest.	4	5	2	Sign "utsjekkliste"
3	3	30	All personnel involved in the operation is present and informed on SOW.	4	4	10	Call for meeting prior to start of operation. If crew change, have new meeting with all personnel. Relevant personnel to be presented at meeting.

Table 6. Green and yellow risk objects

After including "Risk reducing measures." both the frequency and consequence are measured as one step below on their respective scales. This transforms the timepiece into a green object with the degree of risk of 10, so the object is no longer problematic. As Table (6) shows, even green objects are subject to risk-reducing measures, making them even safer than they would have to be in order for the operation to be initiated. This shows that just as all timepieces by definition have some inherent degree of risk, all risk objects are controllable because their attributes are subject to manipulation.

The legitimation for performing this procedure is to ensure safety and reduce risk. We do not discuss here whether this is an actual effect of the procedure, but instead we point out that there are at least two other important consequences:

First, the procedure produces many new risk objects: nature is conquered and transformed into objects that can be controlled and manipulated. Second, the procedure ensures formal safety in a way that allows the anchor operation to be initiated. When all objects are green and the operation is under technological control, it is by definition safe and the seafarers are allowed to start their work.

The procedure described above articulates the process as a risk object. As it is a technological articulation, the objects are related by causa efficiens, a specific form of causality. Heidegger writes, "(f)or centuries philosophy has taught that there are four causes" (1977a: 290). In what would be the Heidegger-Aristotle typology, the four causes for anything to come into existence are as follows: 1) causa materialis, the material something is produced from; 2) causa formalis, the shape that something is shaped into; 3) causa finalis, the function that the thing will have in a concrete context; and 4) causa efficiens, that which produces the effect. According to Heidegger,

> ....every bringing-forth is grounded in revealing (entbergen). Bringing-forth, indeed, gathers within itself the four modes of occasioning – causality – and rules them throughout. Within its domain belong end and means, belongs instrumentality. (1977a: 12)

As the risk objects are *technologically articulated*, they exist as either a cause or an effect, or as both cause and effect. The kind of cause or effect they are related by is also decided by the process that articulates the objects; in this case, the degree of risk is either a cause or an effect.

We have described how diverse and heterogeneous risks were created as entities based on standardizing templates. These templates let the inchoate phenomena congeal (to paraphrase Larsen, 2010) into standardized risk objects with discernible boundaries and specific properties. As such they are transcontextually mobile through the information infrastructure of risk management and can be controlled within this regime.

To ensure safety for every operation that is to be initiated, greater numbers of risk objects are produced in increasingly finer detail and in increasingly compli-

cated models. All follow technological procedures; thus, the operation exists by objects distinguished by a metaphysical distance that separates and relates them.

Entification of Work: Procedures and Standardization

In the previous section, we discussed how risk, mainly from external forces, is sought controlled by technological articulation. In this section we describe a similar and related phenomenon: How the activities of people in organizations are controlled by procedures and governing documentation. This section thus describes entifications of work, and how it, according to Larsen (2010: 155), "congeals into a thing, a unit with discernible boundaries." Less descriptive and more theoretical than the previous section, this section also seeks to outline the processes by which entifications head towards the gigantic. We will illustrate how work is described and prescribed in a discourse based on entification of work according to the rules of accountability-based infrastructures. Developments in both public and private sectors move towards and strengthen this discourse, which is related to a general "audit explosion" (Power, 1994) in modern society. In addition to discussing this way of controlling work, by way of a couple of examples, we outline some developments within this discourse: a) an increase in detailed control facilitated by new ICTs, b) market imitating or market based control of work, which implies that procedures in essence become definitive characteristics of the "work as entity" ordered.

What the Procedure Cannot Capture: Situated Work and Standardized Procedures

One of the authors of this article participated in a project aimed at improving the quality of procedures on the oil industry's supply bases and evaluating changes that had already been implemented (Antonsen et al. 2008). These supply bases store and handle all goods, parts and technical supplies that offshore petroleum platforms require. The goods are usually sent by supply boats that call regularly at the bases. Because of the constrained storage space offshore, the bases are crucial points in the supply chain, so errors and mistakes leading to delays may have serious consequences for operations on the platforms. The base personnel pack and send a wide variety of goods and handle return cargo, which often contains dangerous materials. The desire for control over work performance on the supply bases is understandable, both to ensure the smooth coordination of the supply chain and to avoid accidents and environmental damage. The main problem addressed by our applied research project was that the procedures had grown too complex and comprehensive while, paradoxically, they lacked sufficient detail in some areas. They were also frequently contradictory and difficult to understand. Deviations and incidents were typically followed up by new additions, to "close" cases (similar to the risk reducing measures described above). Generally, it seemed, the

desire to control the work in detail made the procedures increasingly irrelevant as resources for the situated execution of work.

Our study detailed how the base personnel employed procedures as resources for situated actions instead of mere prescriptions (Suchman 1987). In order to obtain a realistic view of operational realities, we included operational personnel in the reflection (not only as interviewees) throughout the course of the project. This led to a very interesting clash of perspectives in a discussion during one of the first meetings of the project. Among those present were the internal project manager, a high-level manager for governing systems (including procedures), the research team, and a representative of the operational workers. When discussing the level of detail of in procedures for the governance of the work, the operational representative, with some support from the research team, argued that the procedures could not cover everything. Because it was impossible to describe every eventuality that might appear during operations on a base, they had to leave some room for situational discretion and adjustments. The response from the managers was to ask him for *examples*. For every example he came up with, they responded that it was covered (either directly or by loose generic phrases) or that it could easily be included in the procedures. The representative became increasingly frustrated. He tried to argue, we later realized, that *everything* could not be included in the procedures, but his point got lost since *anything* indeed could be included. Every example he gave for situational adjustments was already, or could be, described and prescribed; hence, his main argument that a class of situational work existed to which no prescription could or should apply was obscured. This observation served to illustrate the *technological* articulation of work and gave us interesting clues for understanding the growth of procedures that had occurred in the company. We will now move on to consider how procedures are turned into specifications of work as entified products in new modes of governance in the public sector.

When the Description Becomes a Product: The Conception of Work in New Public Management

Illustrative cases of the entification of work can be found in the restructuring of public sectors under the banner of New Public Management (NPM). NPM refers to a broad trend of institutional changes in which the hierarchies in the public sectors are restructured according to ideas inspired by the private sector. We argue that the resulting organizational models are based on a discursive logic of standardization and entification. The NPM concept is largely defined by its critics and hence is a bit "mystical in essence" (Hood & Peters 2004: 268). Thus, no definitive list of ingredients of this broad trend of developments exists.[7] The most relevant developments for our discussion are disaggregation of public bureaucracies into more functionally focused organizations and the market imitating coordination between these organizations. Two main variants of this are a) outsourcing of

public services to private contractors, and b) internal markets within the public sector where public bodies "trade" services through the market. An overarching idea within NPM is accountability. In contrast to responsibility, which we understand as a more holistic phenomenon, accountability can be seen as responsibility held according to certain measurable specifications or deliverables. Thus, when public sector hierarchies are fragmented, control is sought by giving standardized specifications and targets and following up on these, as in contract-regulated business transactions, for example.

In a project on NPM, one of the present authors studied deregulated infrastructure sectors (power networks, water supply and ICT at a hospital) and sought to understand how these institutional changes affected operational work and therefore safety (Almklov & Antonsen 2010; Almklov et al. 2011). Not only is intra-organizational coordination based on transactions of standardized entities, but also this discourse is also found in the conception of work down to the task level within post-NPM organizations. Operations of the infrastructures, a type of work that consists of a continuous flow of tasks and interventions to keep a system up and running and in many ways could be compared to caretaking, is now conceived as sets of standardized delimited tasks with an associated price and specifications. The power network fitters we studied had previously been responsible for a local section of the grid; each group was led by a foreperson and supported by the engineers at the main office. These groups had (and assumed) quite holistic responsibilities regarding the integrity of their grid; they monitored its condition and made small interventions and repairs more or less as they saw fit. Now they belong to internal or external subcontractors and are held accountable for producing a certain set of inspections and interventions according to specifications as ordered by the network companies' specialists. Work was "commoditized": To the extent possible, it was divided into entified, atomistic, standardized tasks according to what gives transparency in the market (Almklov & Antonsen 2010).[8] With regard to the fitters, NPM has implied a shift into more detailed control of their work, reducing their autonomy and connecting them to an infrastructure of control by standardization. Work is more systematic and standardized, but also more controlled down to the task level. Just as risk was dissected into a set of discrete, comparable sub-elements as described in the section above, so was the work of the fitters. It was carved into discrete tasks that can be quite cumbersome, they complained, to integrate into a smooth workday. This required situational adaptive work that was not specified in their orders. This development was described by the fitters as alienating, and they lamented their loss of autonomy. No longer able to make interventions and repairs as they saw fit, they also felt less responsible for the well-being of their grid (which was no longer theirs).[9]

Summary

The observation that work is governed by procedures is scarcely new. It is a classic control-mechanism from the era of Taylorism, at least. We have suggested here that these systems tend to grow as they are confronted by and try to capture and control peculiarities of work as performed in real life contexts. We have also noted some interesting developments in the way descriptions and prescriptions relate to work:

First, although standardized procedures and situated actions could coexist earlier unproblematically, the tendency to treat prescriptions of work as specifications of the "product" in a transaction on a market means that the aspects of work *not* specified will be actively suppressed. When work is a product that is traded and controlled by means of accountability, it has to be delimited and entified; hence, the entification becomes the reified object to be traded.

Secondly, the proliferation of digital technologies into continuously new domains and every work place makes the transaction costs of controlling work in detail—once forbiddingly high—possible to overcome. With handheld devices and PCs everywhere, there are no *material* constraints to the reach of the information infrastructures. However, there are, as we will discuss further, some limitations to the *technological* discourse by which these infrastructures operate.

While information infrastructures provide almost infinite mobility to certain kinds of information, structured data, numbers, and standardized codes in general, more complex contextual information is harder to convey and aggregate, and it must travel in more cumbersome ways to have organizational impact beyond immediate contexts. Hence, development strengthens the "contrast" between what is easily objectified, measured and quantified and the more diffuse, contextual and relational organizational qualities of work.

Towards the Gigantic

In this paper, we discussed and illustrated entification processes in organizational practice. We went into some detail to elaborate how entification according to regulating standards is a part of the regime of control. In the first case, we demonstrated how entification is a means of domesticating and controlling risk, and in the other cases we showed how it controls work. Although we provided most details in rather limited empirical contexts, we find it reasonable to suggest that the types of entification we describe are manifestations of broader trends of *technology* throughout modernity.[10]

In the anchor-handling case, risk entities emerged from diverse and heterogeneous origins into a standardized class of controllable entities. To understand the concrete way these entification processes permeate modern work and are a power in modernity, we suggested that it is important to see the standardized entities in

relation with information infrastructures. Simply put, it is only because entities adhere to certain standards that they are mobile and able to gain effects across contexts by means of information infrastructures. The entifications created in anchor-handling risk analysis may seem arbitrary and weak, but their power lies in their transcontextual nature, which allows for comparison and control by means of accounting or audit-based methods. Such methods seemingly exclude personal judgment and risk thus can be seen as "objective" (see Porter 1995). Risk analyses may approach absurdity when they transform death, environmental pollution and reputational problems into the same entity. Nonetheless, they are components of a mechanism that in most cases is able to proceed with operations without damage. A perceived hazard on an anchor-handling vessel must be simplified to absurdity for risk analysis, but when it does, it might trigger remedial actions and resources.

As actions and resources are triggered, the risk analysis is done and the operation is completed, the objects are no longer of immediate interest. New risk objects will be produced for the next operation to be initiated; meanwhile these are stored as a gigantic standing reserve of already objectified nature. Heidegger's idea of the gigantic refers to this ever-growing pile of entities with causes and effects, which casts a shadow that "extends itself out into a space withdrawn from representation" (Heidegger 1977b: 136). Less poetically, we believe that the dominating ideologies with new ICTs as enablers lead us to search for ever more detailed entifications. In the same way as the managers chased examples of the situational in our story about a meeting at a procedure project, ever-seeking entifications of all that remained undescribed, all articulations in the gigantic´s shadow will contribute to casting the shadow. This is partly illustrated by our case of NPM but is probably generalizable far beyond any specific case.

In *technology*, all that exists is either a cause or an effect. Thus, to create an intended effect, there is a need to create the cause that will produce that effect. To have control, one needs to produce controllable objects, and to control risk—or to produce safety—one needs to produce controllable risk objects. Similarly, to control work in increasing detail, one needs to produce increasingly detailed work entities represented by more and more detailed checklists or operations separated in shorter and shorter timepieces.

Because the procedure that leads towards the gigantic is always rational, *technology* is the rationality by which rational goals can be achieved. However, the gigantic is not the rational goal of the procedure even though this is the ultimate shadow-consequence. Instrumentality and *causa efficiens* are the underlying reasons for the process that leads towards the gigantic, and because it is not the intended effect of the procedure, the gigantic is not subject to the *technological* causality.

The gigantic is the shadow of modernity, an elusive intangible *something* that is not in itself a thing and thus cannot be observed. However, in this article we have presented glimpses of it in procedures and entities that contribute to the cast-

ing of an even greater shadow of the gigantic. It is rational to include one more entified detail in the risk analysis, one more eventuality in the procedure on the supply base. Out of this rationality a gigantic system is born.

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Notes

1 Røyrvik (2012) bases his discussion on a Heideggerian understanding of technology, while Almklov (2008; Almklov & Hepsø 2011) employs insights from ANT and other relational perspectives within STS and anthropology. See also the recent debate on Latour and Heidegger in Social Studies of Science, e.g. Riis (2008), Kochan (2010) and Schøilin (2012).

2 This line of argument is inspired by Håkon Fyhn's PhD thesis (2010) in which he discusses and challenges science as object-based ontology.

3 This refers not only to geographical distance and time but also more generally to mobility between contexts.

4 We borrow some inspiration from the distinction between formalism and substantivism in economic anthropology here. We believe that Larsen's (1977) argument that these perspectives depend on each other is also true for different conceptions of information infrastructure. We highlight infrastructures as rules, but do it on a background of their typical material manifestations.

5 This is not always simple, however. See Bowker (2000), Ribes & Jackson (in press), Almklov (2008).

6 Implicitly, this means negative consequence or harm.

7 However, see Hood (1991), Hood & Peters (2004), Dunleavy et al. (2006), and Christensen and Lægreid (2001) for some discussion of its contents.

8 Although here we highlight how entification of work is an element of making it fit a market, Bowker and Star (2000) describe how the discipline of nursing is entified in a similar manner

to gain organizational visibility of their work. When "comforting" is a countable nursing intervention and not something a nurse just naturally does, it becomes visible within an accountability based system.

9 Though they had their grievances one should not be too nostalgic either: Many fitters and other workers also described advantages of the changes. Among these were the opportunity to specialize in specific tasks and the increased homogeneity of the grid.

10 Our discussions of accountability regimes and the audit explosion (Power 1994) in modern society point in this direction. Our suggestion is also at least indirectly supported by Larsen's (2010) observations, our reading of Heidegger, and by several other theories of modernity.

References

Almklov, Petter (2008): "Standardized Data and Singular Situations", *Social Studies of Science* 38, 873-897.

Almklov, Petter & Stian Antonsen (2010): "The Commoditization of Societal Safety", *Journal of Contingencies and Crisis Management*, 18: 132-144.

Almklov, Petter & Stian Antonsen & Jørn Fenstad (2011): "NPM, Kritiske infrastrukturer og samfunnssikkerhet", [NPM, Critical Infrastructures and Societal Safety], Trondheim: NTNU Samfunnsforskning AS.

Almklov, Petter & Vidar Hepsø (2011): "Between and Beyond Data: How Analogue Field Experience Informs the Interpretation of Remote Data Sources in Petroleum Reservoir Geology", *Social Studies of Science* 41:4, 539-61.

Antonsen Stian & Petter Almklov & Jørn Fenstad (2008): "Reducing the Gap Between Procedures and Practice–lessons from a Successful Safety Intervention", *Safety Science Monitor*, 12.

Bateson, Gregory (1979): *Mind and Nature: A Necessary Unity*, London: Wildwood House.

—— (2000): *Steps to an Ecology of Mind*, Chicago, IL: University of Chicago Press.

Bowker Geoffrey C. & Susan Leigh Star (1999): *Sorting Things Out: Classification and its Consequences*, Cambridge, MA.: MIT Press.

Bowker GC. (2000): "Biodiversity Datadiversity", *Social Studies of Science*, 30, 643-683.

Christensen, Tom & Per Lægreid (2001) *New Public Management: The Transformation of Ideas and Practice.* Aldershot, UK: Ashgate Pub Ltd.

Ciborra, Claudio & Ole Hanseth (2009): "From Tool to Gestell: Agendas for Managing the Information Infrastructure", Chrisanthi Avgerou (ed.): *Bricolage, Care and Information*, Basingstoke: Palgrave Macmillan, 160-190.

Det Norske Veritas (2003). *Kursdokumentasjon – Sikkerhetsanalyse*, Det Norske Veritas.

Dunleavy Patrick, Helen Margetts, Simon Bastow, Jane Tinkler (2006): "New Public Management is Dead – Long Live Digital-era Governance", *Journal of Public Administration Research and Theory*, 16: 467-494.

Fyhn, Håkon (2010): *Møte med tilstedeværelse*. [Encounters with Presence]. Phd Thesis, Trondheim: NTNU.

Hanseth Ole & Eric Monteiro (1997): "Inscribing Behaviour in Information Infrastructure Standards", *Accounting, Management and Information Technologies*, 7, 183-211.

Heidegger, Martin (1977a): "The Questioning Concerning Technology", Martin Heidegger: *The Question Concerning Technology and Other Essays*, New York: Harper & Row.

—— (1977b): "The Age of the World Picture", Martin Heidegger: *The Question Concerning Technology and Other Essays*, New York: Harper & Row.

Hohnen Pernille & Peter Hasle Peter (2011): "Making Work Environment Auditable: A 'Critical Case' Study of Certified Occupational Health and Safety Management Systems in Denmark." *Safety Science*, 49, 1022-1029.

Hood, Christopher (1991): "A Public Management for All Aeasons?" *Public Administration*, 69, 3-19.

—— (2007): "What happens when transparency meets blame-avoidance?" *Public Management Review*, 9: 191-210.

Hood Christopher & Peters Guy (2004): "The Middle Aging of New Public Management: Into the Age of Paradox?" *Journal of Public Administration Research and Theory*, 14, 267-282.

Johansen, Stein (2008): *Grunnriss til en differensiell epistemologi*, Bergen: Ariadne.

Kochan, Jeff (2010): "Latour's Heidegger", *Social Studies of Science*, 40:4, 579-598.

Larsen, Tord (1977): "Formalisme/substantivisme – et sentralt erkjennelsesteoretisk problem i antropologien" [Formalism/Substantivism – A Central Epistemological Issue in Anthropology], Manuscript published in reader edited by dept of social anthropology, NTNU: Trondheim.

—— (2010): "Acts of Entification", Nigel Rapport (ed.): *Human Nature as Capacity: Transcending Discourse and Classification*, New York: Berghahn books, 154-78.

Latour Bruno (1987): *Science in Action: How to Follow Scientists and Engineers through Society*, Milton Keynes: Open University Press.

Power, Michael (1994): *The Audit Explosion*, London: Demos.

Ribes, David & Steven J. Jackson (In Press): "Data Bite Man: The Work of Sustaining Long Term Data Collection", Lisa Gitelman (ed.): *Data are Never Raw*, Cambridge, MA: MIT Press.

Riis Søren. (2008) "The Symmetry Between Bruno Latour and Martin Heidegger: The Technique of Turning a Police Officer into a Speed Bump", *Social Studies of Science*, 38, 285-301.

Røyrvik, Jens (2012): "Værvinduet – en teknologisk artikulert entitet i oljeindustriens erobring av natur." Thesis submitted for PhD in social anthropology, Trondheim: NTNU.

Schiølin, Kasper (2012): "Follow the Verbs! A Contribution to the Study of the Heidegger–Latour Connection", *Social Studies of Science*, 42, 775-786.

Suchman, Lucy (1987): *Plans and Situated Actions: The Problem of Human-machine Communication*, Cambridge: Cambridge University Press.

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Real Virtuality: Power and Simulation in the Age of Neoliberal Crisis

By Emil André Røyrvik & Marianne Blom Brodersen

Abstract

Departing from a discussion of transformations in the premises of managerial rationality and "managementality" as a pacemaker of the (post)modern social order, as it is steeped in economic crisis, the paper critiques and extends Baudrillard's constructs of "simulation" and "hyperreality" to illuminate significant developments in the global culture complex of neoliberalization. With empirical illustrations of superfinancialization, transparency and surveillance, the paper explores converging patterns of how models of "neo-management" are created by and constructs new post-political and simulated social worlds. The paper concludes that a key feature of the contemporary "managementalities" that orchestrate and give rise to major models of the neoliberal culture complex, is their capacity for constructing new simulated, yet ontologically distinct, spaces that lie beyond the power of representation. We conceptualize this ontological space as "real virtuality". The templates of neo-management not only constantly "conquer new land" and subsume it under simulated hyperrealities, they actively "create new lands" with differential ontological statuses of varying gravity.

Keywords: Neoliberalism, managerial rationality, neo-management, hyperreality, financialization, economic crisis, simulation, surveillance, transparency.

Introduction

The year 2014 marks the tenth anniversary of the invention of the sociological concept of "the reality-based community". It was coined by a senior advisor to former president G.W. Bush (it is an open secret that the advisor in question was Karl Rove) and conveyed in 2004 by the investigative journalist Ron Suskind. In an interview with Suskind the advisor commented that Suskind was part of what "we call the reality-based community". The advisor defined the concept as people who "believe that solutions emerge from your judicious study of discernible reality." Suskind uttered something about enlightenment principles and empiricism, but was cut off: "That's not the way the world really works anymore… We're an empire now, and when we act, we create our own reality. And while you're studying that reality – judiciously, as you will – we'll act again, creating other new realities, which you can study too, and that's how things will sort out. We're history's actors .. . and you, all of you, will be left to just study what we do" (2004).

At the beginning of the millennium Zhu Rongji, then China's premier, hosted a secret meeting of top Communist officials. Senior academics and finance officials were invited to teach the top brasses a crash course on complex financial instruments. The best explanation of financial derivatives the experts could summon that day, was to describe it as "like putting a mirror in front of another mirror, allowing a physical object to be reflected into infinity." Jamil Anderlini, who reported the story for the Financial Times noted that "China's leaders, most of whom are engineers by training, decided to take a cautious approach towards these exotic products and still have yet to allow most kinds of derivatives" (Anderlini 2008). As the derivatives market indeed had been reflected into something approximating "infinity", by 2008 ten times the size of global GDP, the Chinese image of mirrors reflecting into infinity was not entirely misplaced.

These two, in more than one respect, intriguing anecdotes concisely illustrates the main focus of this article. While exploring some of the dominant forms of power, in our post-political age of "neo-bureaucratic modes of control" and "polyarchic governance structures" (Clegg et al. 2006) that combines centralized autocracy with "managed democracy", we interrogate contemporary modes of constructing what Jean Baudrillard has conceptualized as the society of *simulation* and *hyperreality* (e.g. 1981, 1976/1993, 1981/1994). We investigate the intersections of contemporary forms of power and simulation. The two anecdotes above illustrate in different yet interrelated ways how these theoretical constructs are realized in practical political economy at the post-millennial moment. Several recent commentators have described the globalized political economy's present predicament in terms of a "re-enchanted reality" (Comaroff & Comaroff 2001; Røyrvik 2011). For example, David Harvey noted in 1992 that under conditions of postmodernity, capitalism has become dominated by an economy of signs rather than things (1992: 102), and Clegg et al. (2004) characterized this development as

finance capital taking on a *hyperreal* quality. Not least after the finance crisis unfolded the realization that finance capital has achieved a high degree of autonomy from the "real economy" has gained currency (e.g. Kallis et al. 2009). The highly complex derivatives markets have been described as "illusionary" and an "economic wonderland" of "castles built on sand" which threaten liberal democracy (Cloke 2009).

In the postmodern society of simulation and hyperreality, Baudrillard contends that capitalism is organized around sign-values. The modern logic of production has ended, the referent as well as depth, essence and any "outside" have all disappeared, and societies are organized around the play of images, signs, codes and models. In the current epoch, simulation and hyperreality proliferate and rules, in a "carnival of mirrors reflecting images projected from other mirrors…" (Kellner 1994: 2-10). Baudrillard argues that we see a "conjunction of the system and of its extreme alternative like the two sides of a curved mirror… [it is] the infinity of capital folded back on its own surface: transfinite" (1981/1994: 18). In his writings on the third order simulacra Baudrillard thus anticipated some of the modes of thought and power underlying both the White House concept of the "reality-based community" and the Chinese mirrors metaphor of contemporary superfinancialization. While far from endorsing all possible aspects of Baudrillard's controversial social theory and speculative philosophy, for example the alleged binarity, formalism, and semiological overdeterminism of his model (Kellner 1994), we critique and expand on his concepts to advance our argument.

The ambition of the article's argument is to gain deeper insight into some of the more subtle power dynamics constitutive of our current neoliberal epoch, through analyzing transformations in the premises of managerial rationality and "managementality" (Sørhaug 2004) as a pacemaker of transnational corporate worlds and the (post)modern social order. With empirical case material we briefly illustrate and expand on Baudrillard's notion that our age is inaugurated by the conjunction of simulation and power, and omnipotent "superficial transparency" (Baudrillard 1981/1994). The precession of neo-managerial models can be understood as a fulcrum of global projections of power, in the operation and creation of current socio-political agendas, actors and actions.

The post-political moment of neoliberal consensus, is to a great extent defined by the rise of experts (Zizek 1999: 171-244), various forms of technocratic modes of control and "governance-beyond-the-state" (Swyngedouw 2005), and systems of "deterrence" (Baudrillard 1981/1994) that enacts a post-democratic tendency variously investigated with concepts such as multiple versions of "governance", different "control hybrids", or "devolved democracy" and "managed democracy" (Courpasson 2000; Clegg & Courpasson 2004; Wolin 2008; Clegg et al. 2011). The practical and powerful significance of the new modes of management is illustrated simply by the fact that among the 100 largest economic actors on the global stage in 2004, compared in terms of value of GDP and sales, 28 were countries

and 72 were corporations. The world is home to more than 60,000 transnational companies (TNCs)—most of them, however, with origins in quite few developed countries (Clegg et al. 2004: 457). The changing premises of "managerialism" and "managementality" are therefore crucial to grasping some of the fundamental transformations that have occurred on a large scale in organizational life, and beyond, under the aegis of neoliberalism, or rather, variegated neoliberalization.[1] Although, as several commentators have noted, "neoliberalism" has become something of a "*rascal concept* – promiscuously pervasive, yet inconsistently defined, empirically imprecise and frequently contested" (Brenner et al. 2009: 184), the emergence of the last decades of a "neoliberal culture complex" (Hannerz 2007) of global reach, is well documented (Harvey 2005).

Some of the recurring buzzwords characterizing the neoliberal culture complex are for example "accountability", "transparency", "privatization", "quality control", "branding", "auditing", "excellence", and "ranking" (ibid.). One *prominent* feature of the global neoliberal culture complex has been the restoration of power of a particular form of a capitalist class, often mistakenly euphemized as "market powers"; a class which better can be described as "finance", and by "finance" it is not only meant the financial sector of the economy, but the complex of upper capitalist classes, whose property materializes in the holding of securities, like stock shares, bonds, Treasury Bills, rent instruments, derivatives, as well as financial institutions like central banks, banks, and funds (Duménil & Lévy 2004: 16). The political power of finance is demonstrated by the fact that "after" the 2008 finance crisis and the current economic crisis in Europe, core members of the financial elites have through managed democracy, or extra-democratic processes, been directly installed as heads of states, as in Greece and Italy, and in other top political positions throughout Europe (cf. Foley 2011).

Along with other mechanisms of what Harvey has labeled "accumulation by dispossession" (2005), this financialization has resulted in redistributing wealth at an unprecedented scale in recent times *upwards* in the system. As voiced by the "Occupy Wall Street" movement, a simple explication of this "radical reverse redistribution" (Røyrvik 2011) is the development of the fortunes of the richest 1 % in the USA. From 1979 to 2006 the share of national income from this small group increased from 8.9% to 22.8%. As Palma notes, by 2006 the share of the top 1% had returned to pre-1929 levels (2009: 836-837). And the radical increase in the income share of the richest is directly linked to the similar radical increase in the value of financial assets as a percentage of GDP (ibid.). The elephantine expansion of the finance economy in the last decades has been concurrent with a steady decline in the growth rates of world production as measured by GDP (Maddison 2001), not least in the developed economies (Davys 2011). Neoliberal financialization has thus notably failed also on its own terms, because of its incapacity to provide a framework to foster productive investments and increase the generation of real wealth (Hardt & Negri 2009).

The empirical case material used in the article is drawn from a longitudinal ethnographic extended case study spanning more than 10 years of research on globalized managers in the transnational corporation Hydro (Røyrvik 2011). The company is a leading actor in the aluminium industry, and based in Norway Hydro in 2012 employed 23,000 people in more than 40 countries worldwide. In 2010 revenues was $ 13,140 million.

Managementality and the Society of Simulation

Studies of management in the world of transnational corporations are in many respects to aim for the jugular in disclosing key aspects of (post)modern life and forms of rationality. Shenhav exposes the "process by which managerial rationality crystallized to become the unquestioned pacemaker of the modern social order" while playing a critical role in "diffusing repertoires of instrumental rationality worldwide" (1999: 2). The roots of corporate management can be traced to engineering at the turn of the 19th century (Shenhav 1999), "those great despised figures of culture and history," as Latour writes (1996: 24). Significantly it later differentiated itself from engineering, and merged with constructs from economy, accounting and finance; key managing concepts were translated from the "technical" field to the operations of the whole organization and disseminated throughout society.

The establishment of management as a "discipline" was pivotally enabled by the publication of Peter F. Drucker's 1954 book *The Practice of Management*. Here the rise of management as a distinct and vital group in industrial society is described. Management was portrayed as a *practice*, and although containing elements of both, neither seen as a science nor a profession. The tone is set in the first sentence of the book: "The manager is the dynamic, life-giving element in every business. Without his leadership the 'resources of production' remain resources and never become production." Together with arguably the first book talking about a "managerial revolution", *The Modern Corporation and Private Property* (Berle and Means 1932), other classic monographs from managing in work life relationships during the following years and decades, like *Men who Manage* (Dalton 1959) and *Organization Man* (Whyte 1956) our understanding of managing in the modern organization or corporation, and of "managing man", was (re)formed.

According to Peter Drucker (1993) "capital" and "labor" was increasingly exchanged with the conceptions of "management" and "labor". The manager's three distinctive jobs were to manage a business, manage managers, and to manage workers and work. However, as he stated almost half a century later: "Management is a generic function of all organizations, whatever their specific mission. It is the generic organ of the knowledge society" (Drucker 1993: 43). Drucker defines a manager as one who is "responsible for the application and performance of

knowledge" (ibid.: 44). It is explicit on linking managing actions and the "performance of knowledge".

Obviously, knowledge has always been a central feature of most economic activities, the management revolution, however, as explicitly linked to economic modernity, is according to Drucker the third level in a successive movement involving knowledge. The first was the industrial revolution, the mechanization of production by applying knowledge to tools, processes and products; the second was the productivity revolution, associated with the rise of the modern corporation and fundamental infrastructural inventions at the end of the 19th century. This was knowledge applied to human work, as exemplified by Taylorism. The management revolution then, as the third phase, was knowledge applied to knowledge. Zuboff concludes that the manager's role came to be identified with the "… guardianship of the organization's explicit knowledge base" (1988: 222). This signifies the rise to dominance of the "expert society" accompanied by hybrid regimes of control and seductive forms of surveillance.

In the writings of Baudrillard the three orders of simulacra run parallel to the successive phases of the status of knowledge in economic activity and to the dominant forms of value; pre-modern symbolic exchanges, modern production with its related dialectic of market exchange value and use value, and postmodern simulation in which social reproduction (information processing, knowledge industries, communication, images, spectacles, etc.) and sign-values replaces production as society's key organizing principle and constituent (Kellner 1994: 6-7). More than total replacements, the rhetoric of all kinds of "ends", and the binary opposition between "the real" and the "hyperreal" in Baudrillard's speculations, we suggest that the signs of simulation affect all orders as it "infiltrates", "enhances" and enchants both "production and reality", as it were. The result, we argue, is more a differentiation of different types of "realities" with varying ontological status, including the continuous emergence of new realities (see figure 1).

In his analysis of post-bureaucratic organization and control, Michael Reed highlights the potential in this managerial mode for subtly "blending" a "complex range of control mechanisms in order to realize a viable synthesis of streamlined and strategic control (required by governing elites) with devolved operational compliance through a much more sophisticated "coalface" surveillance and disciplinary technology, developed by a new cadre of technocratic managers..." (2011: 243). For Baudrillard "the meticulous operation of technology serves as a model for the meticulous operation of the social" (1981/1994: 34). In this respect, one of the more important shifts in managerial rationality was the significant transition from control to self-control underscored in Boltanski and Chiapello's analysis of the "new spirit of capitalism" (2007). In their view, this "neo-management" ensures that self-control is achieved by subsuming the inner life—the emotions, values, and personal relations of workers—under productivity and profit motives (2007: 78–86). Earlier Baudrillard quoted Verres saying: "Why not consider the

attitudes of the workforce as one of the resources to be managed by the boss?" (1976/1993: 14), and Baudrillard extended this to include: knowledge and the sciences but also sexuality, the body, and even imagination (ibid.).

Neo-management is inherently part of post-bureaucratic organization and the key analytical components of neo-bureaucratic control regimes are identified by Reed (2011). First, *continuous self-surveillance* is enabled through combined practices of "demonstrated participation" and focus on "team performance". The reduction of social life down to only organization-specific issues and problems are directed through various *knowledge codification systems and techniques*, while stressing "discursive identity" and "committed subjects" is reflected through a range of *peer group regulatory mechanisms and practices* "in order to ensure that appropriate levels of worker commitment are generated and sustained…" (2011: 245). Fourth, the mechanism of *dual labor markets* [knowledge workers vs. routine operatives] is enabled by bringing together "disciplinary incentives" and "market competition". Finally, *managed democracy* is developed and maintained through "delegated autonomy" and "collective empowerment" (Reed 2011: 243-245).

The psychological embedding of neo-management is captured in the concept of "managementality" (Sørhaug 2004), and highlights that these new forms of control also enables relations based on "mimetic desire" (cf. Girard 1977), the principle of desiring what you think others desire, and "which makes people *want to want*" (Sørhaug 2004: 104, *our trans.*). Seduction is the premise for power in mimetic desire, and managementality comprises both the disciplination and self-control of governmentality, and the seduction of mimetic desire. In Baudrillard's vernacular this could be understood as a collapse and conjunction of desire and value, desire and capital, and desire and power through the same kinds of commodification and consumption identities, demands and spectacles.

As a more general characteristic of the neoliberal post-political condition, Wolin (2008) argues that while representing the antithesis of constitutional power, managed democracy is a system that represents the political coming of age of corporate power over public life and state affairs. It projects power "inward" in society by strategies of cooptation, the appearance of freedom, and political disengagement rather than mass mobilization. Arguably the models of neo-management are both created by and co-construct the contemporary post-political "society of simulation," and with Baudrillard we might add to these notions of "managed democracy" the hyperreal dimension. Wolin's emphasis on "the appearance of freedom" can then be seen as a "simulation of freedom," Reed's term "demonstrated participation" could reflect the presubscribed "scenario of participation," and the term "dual labor markets," distinguishing between knowledge workers and routine operatives, could be understood as a hyperreal distinction in which the routine "operativeness" of knowledge work is secluded by the hyperreal creation of the very configuration of a dual labor market, and thereby also creating

specific hyperreal forms of power and simulation. Some of these forms are explored below in empirical illustrations and discussions.

Case Illustrations and Discussions

This section is divided in two main parts, respectively focusing on two key areas of the neoliberal culture-complex' post-political forms of power and seduction: a) the stress on transparency, accountability, branding and (implicitly) surveillance is discussed through illuminating corporate architecture and office space as material metaphors of neo-management, b) the move to "money management" and financialization as the *modus operandi* of neo-management.

The Hydro House of Glass: Material Managerial Metaphors of Transparency and Control

Hydro's headquarters and corporate top management are located in Oslo, Norway. Although the architecture in all the headquarters buildings in Oslo is characterized by extensive use of glass, it is their newest and core building of their headquarters that really stands out in this respect. The headquarters is surely thought of as a "signal building". That is, it is intentionally designed to signify. The most obvious experience you notice when working out of the Hydro headquarters is the open space layout. There are mainly glass walls into meeting rooms, making it easy to see in and out. In this large open landscape, there is a "clean desk policy" for many workstations, to enable people on the move to have a work place, while reducing office costs. The top managers have their personal desk, with larger lamps and larger chairs with higher backs.

The building provides a fascinating experience of being able to perceive a lot of the action going on in the offices and in the meeting rooms. The only real demarcations that exist are glass walls and doors. In addition to silvery, slim and sleek aluminium structures. It is obvious to think of the extensive use of glass as an effort to be perceived in idioms expressing ideas like "new", "fresh", "modern" and "up to date", similarly with their open space work landscapes. Contemplating them you also get an overwhelming feeling of openness, you can see far off into the interiors of the building, while simultaneously experiencing the seclusion with which the spaces are regulated. Access cards must be presented at every major door and glass enclosed rooms are sound proof. It is a visual spectacle strongly signifying and branding values of transparency. As noted by Hannerz (2007), transparency is one of the primary buzzwords of the neoliberal culture-complex, and here it is vividly visualized through the architecture and spatial organization.

However, this material metaphor of transparency instantly produces its own signifying negation, and in this production, the glasshouse is an intrinsically paradoxical space. Because of the spectacular visual openness of the space, the closed-off-ness of entering and listening in is brought to the forefront. Likewise, illustrat-

ing surveillance and seduction, once one of the authors visited, the Hydro staff had just moved in, and a female manager accompanied him. Climbing the stairs she exclaimed, somewhat humorously and while nodding upwards towards another woman working on the other side of a glass wall: "The women here have to stop wearing skirts", she lamented in a half-serious tone. In our direct line of sight the legs of a woman working were neatly on display underneath her work desk, visible through the glass wall "window".

From the viewer's perspective, one might imagine that the visual openness could create a double feeling of inclusion and exclusion, desire and seduction, but at the same time, this superficial transparency brings about a loss of appearance. Baudrillard contends that it is "*the superficial transparency of everything*, of their absolute *advertising*" (1981/1994: 87, italics in original) that today fascinates us as forms of disappearance (rather than the seduction attached to appearance). This relates to the concept of managementality and mimetic desire. Recalling Freud's notion that imagination was all that remained bound to the pleasure principle, whereas the physical apparatus was subordinated to the reality principle, Baudrillard ironizes on behalf of the capitalist system: "We must put a stop to this waste. The imagination should be realized as a force of production, it should be invested. The slogan of technocracy is: 'Power to the Imagination!'" (1976/1993: 14).

From the viewed person's perspective, the awareness of this spatial see-through-ness might produce certain kinds of behavioral patterns based on precautionary measures and conformity driven self-control mechanisms. While you can observe a host of activities visually, for example observe from quite a distance whom is talking to whom, it is nonetheless strictly regulated in which areas you can freely move, and who you can listen in to. Because of this particular spatial materialization then, the paradoxical effect of signifying both openness and accessibility, but also exclusivity and secretiveness, is revealed. This distinct doubleness is of relevance when considering the non-language idioms of significance in such a corporate working context. It is a metaphor for the specific constellation of power and seduction that Sørhaug (2004) has identified as constituents of "managementality", and that we could further connect to the structuring of managerial space (place and pace) as a space of "deterrence" and "superficial transparency" (Baudrillard 1981/1994).

The idioms of power expressed by the Hydro headquarter house of glass bears a resemblance to a workplace version of the Goffman's "total institutions" (1961).[2] These institutions are characterized by the features such as: daily life carried out in the immediate presence of a large number of others; the members are very visible; there is no place to hide from the surveillance of others; members tend to be strictly regimented; life is governed by strict, formal rational planning of time; people are not free to choose how they spend their time, it is prescribed

for them; and members loose a degree of autonomy because of an all-encompassing demand for conformity to an authoritative interpretation of rules.

Quite obviously not all of these features apply to the "house of glass" headquarters, most importantly that the two examples Goffman mostly refer to, mental hospitals and prisons, feature involuntary membership. In the Hydro case it is the opposite situation, where becoming both a member and a manager is considered attractive by so many people that it by far outnumbers the positions available. But in addition to some of the similarities in the characteristics of space, most managers also noted their own strong subservience related to regulations and prescriptions on time. And as noted, the meeting is the corporate managers' main organizer of time, and many of them said they had no or little control of 70-80 percent of their time. In his early scientific contribution from observing senior managers, Mintzberg (1973) came to the, at least at the time, surprising conclusion that managers control little of what they do. Related to this phenomenon Sørhaug has noted that leaders are infantilized by the fact that others arrange for them a lot of their activities and basically steers much of their lives (Sørhaug 2007). This insight rings furthermore true with what Henrik Ibsen, the renowned Norwegian playwright, in an interesting paradox, mentioned in a letter to a friend; that occupying power is a rather subordinate position (Geelmuyden 2005).

The emergence of the *corridor* in western housing "design" of the late seventeenth and eighteenth centuries is said to concur with the individualization and "privatization" processes at the core of modernization (cf. Stone 1977: 169). If so, it might be significant to note the "collapse of the corridor" in contemporary open space office design. It is tempting to make it represent one indication of the post-modern condition. With contemporary office building design's additional emphasis upon "flexibility" (Dufour 2008), transparency and interactive sharing we might, however, at least partly conclude that the house of glass headquarters signify a neoliberal, post-modern and knowledge age version of a workplace "total institution".

The surveillance aspect in these spaces, are akin to Foucault's discussion of the "Panopticon" as a metaphor of modern disciplinary "surveillance societies" (1979). The Panopticon is the prison building design of English philosopher Jeremy Bentham, were everybody at all times can be under surveillance from a vantage tower at the center, while the observer cannot be seen from any of the cells. All the inhabitants would be constantly illuminated; creating the effect Bentham called "universal transparency". The inhabitants can never be sure exactly when they were monitored. The effect is control through self-control. Foucault argued that the new techniques of industrial management, of regulating, directing, constraining, anchoring and the channeling of bodily energies into productive activities, laid the groundwork for a new kind of "disciplinary society" where bodily discipline, regulation and surveillance were taken for granted. This new type of disciplinary power was the antithesis to that which was prescribed by the theory

of sovereignty. The latter was a form of power exercised over the earth and its products, much more than over human bodies and their operations, and it did not allow for continuous and permanent systems of surveillance. In Foucault's view the Panopticon was both a sign and a metaphor for the disciplinary society. By constant illumination and visibility it provided the possibility of total control, not the least through self-control (cf. Foucault 1980; Zuboff 1988).

In the "house of glass" it is not so much that everybody may be monitored from a "Big brother" type of centralized command. It is more that everybody can be watched more or less all of the time by one person or a few others. It is thus more a surveillance of a "little brother" or "*many* brothers" type. According to Baudrillard, the contemporary omnipresent gaze plays "on the opposition of seeing and being seen" (1981/1994: 29). In this space of deterrence of superficial transparency, you are already on the other side. There is "no more subject, no more focal point, no more center or periphery: pure flexion or circular inflexion" (ibid.), and presumably, there is no more violence or surveillance in this order, only "information". Moreover, this new order is distinctly different from the panopticon in its capacity to enable, to some extent at least, a monitoring "upwards" in the hierarchy. It makes possible a certain degree of supervising the "bosses". This type of decentralized, relational networks type of reciprocal surveillance might be labeled a "polyopticon", in complementary analogy to the Panopticon. As such it might *also* be perceived, in addition to the control and surveillance aspects, as a materialization of the moral vocabulary of Hydro values such as democracy and participation.

The construction of this type of neo-managerial space means taking the panoptic self-control one step further, creating not only a conformity driven self-management as the former, but also a tensional space of part-taking, the feeling of involvement and importance, teamwork and team performance, demonstrated participation, the craving for greater positions and desire for full access to the bigger chairs and the exclusivity of the other side of the glass walls. The effect, nevertheless, would be expected to resemble the panopticon in terms of self-monitoring and self-discipline. The example of women, although jokingly at least contemplating having to stop wearing skirts illustrates the point. If our discussion of managementality, as comprising both discipline and seduction, has merit however, we would also argue that the "polyopticon" design in the house of glass, in contrast to the Panopticon, in addition signify and enables processes of "mimetic desire" and seduction. For those passing by, and being interested, the visible legs behind the window beneath the table, the private conversations of top managers behind closed glass doors or the larger, calmer and more exclusive offices of the top guys again being illustrative. In sum the "polyopticon" headquarters, the glasshouse simulacra of the power and seduction of managementality, is thus a material metaphorical expression of complex and to some extent heterogeneous cultural val-

ues, yet illustrating quite succinctly the characteristic of "superficial transparency" in the era of simulation.

The Move to "Money-managementality" and Financialization

In Hydro the shift to finance did not take full effect until 1999, with their broad turn to shareholder value and finance (Lie 2005). The severe constraints finance capital imbued on Hydro investment projects and the industrial corporation's activities and culture more generally did not, however, stop them from being fantastically successful in surfing the global wave of financialization (Røyrvik 2008, 2011). From 1999 to 2007, in eight years, the market value and stock price of Hydro, a robustly solid 100 year old industrial company, increased by 638 percent,[3] a figure highly in need of an explanation. Hydro as an industrial corporation was increasingly in an ambivalent position, both resisting the financialization of the economy (by routinely reinvesting profits in new production and not turning towards pure financial business and/or speculation), yet adapting imaginatively to the overall global economic context in which they operate, a context that might be described as the financial allure and captivation of capitalism (ibid.). Two quotes from international managers, engineers by training, in Hydro illustrate the turn to finance:

> The path we are now taking is the economist's death march towards becoming a trading company. As Jonas said, they don't know value creation, views technology as something you are burdened with, they think that everything can be bought, that a factory can be set up in a day. These guys don't build anything. Right? You can buy a factory at the grocery store. Yes?

> They [economists, top management, finance people] live with the belief that you get the same societal value from power when used for your bathroom heating cables as when used in aluminium production! Reiten [CEO] I am sure, he wants to create something, but there is no will to create value in Norway – only distribution. There is no political will.

The engineering managers are worried that Hydro will turn into "a trading company", into a financial corporation. The engineers are alluding, wittingly or not, to the perennially significant relationship, sometimes symbiotic, sometimes parasitic, between production and financial capital (Perez 2002: Reinert 2007). As noted by economist Michael Hudson (2000), the industrial worldview, in contrast to the financial, emphasizes economic potential and how to best finance a higher economic horizon. This has been exemplified by 19th century German, French, Japanese, Scottish and Russian industrial banking as it evolved along a different line than Anglo-Dutch mercantile banking, producing very different financial philosophies. Hydro itself was in its inception and development phases financed by Swedish, French and German industrial banking. It was very much born out of that particular "production capitalist" financial tradition (Andersen 2005).

As Hudson remarks, the classical way of extending the economic horizon was by providing returns to entrepreneurs for investing savings in building new facto-

ries, hiring more labor and undertaking more research and development. Hydro's history could not be a more fitting example for all of the three elements. However, the issues of a "turn to finance" is part of a larger reorientation within Hydro since 1999, in the name of "value based management", or "shareholder value", and it was in several ways a turn away from their own financial tradition, largely because of the global rise to domination of the Anglo-Saxon "mercantile" finance tradition. In Hydro it transformed the HR-function, performance measurements, compensation schemes, introduced new finance control mechanisms, placed stronger financial priority constraints on decisions about investing in new production projects, and brought about an ideological conflict about the proper role and mandate of the corporation in society (a broad societal mandate or just a shareholder value vehicle) (Røyrvik 2011).

Hyman Minsky describes the rise of this new stage of financial capitalism in the US as "money manager capitalism," in which

> the proximate owners of a vast proportion of financial instruments are mutual and pension funds. The total return on the portfolio is the only criteria used for judging the performance of the managers of these funds, which translates into an emphasis upon the bottom line in the management of business organizations (1996).[4]

The creation of "money manager capitalism" was initiated because of the development in the 1960s and 1970s of a diverse set of financial mechanisms and institutions, accompanied successively by deregulation, that circumvented New Deal constraints on finance, including such issues as securitization of mortgages, derivatives to hedge interest rate (and exchange rate) risk, and many types of "off balance sheet" operations (helping to evade reserve and capital restraints)" (Wray 2009: 814). The monetary sign, that is, the flotation of both money and sign, should we follow Baudrillard's diagnosis, has escaped into "infinite speculation, beyond all reference to a real of production…" (1976/1993: 7).

Hydro is immersed in various types of financial markets in numerous ways, mainly to handle financial risks. Risk management related to investment projects and daily operations is conducted in a variety of practices and at various levels. These financial markets trade in various "paper assets" (better described as "digital" or "sign" assets), like stocks, derivatives like futures, swaps, options, foreign exchange, notes, mortgages, treasuries, bonds, and other paper property titles. As disclosed in their annual reports Hydro is engaged in the majority of the financial instruments listed above.

The innovation speed in financial instruments, it seems, has not only taken the general public aback, but also leaders and control systems in major industrial corporations and governance institutions. Drawing upon studies from the inside of the economic establishment of Wall Street banks, IMF and the WTO itself (e.g. Alexander, Dhumale & Eatwell 2005; Schinasi 2005), this argument is eloquently outlined by historian Gabriel Kolko in his essay "Weapons of mass financial destruction" (2006a). The title alludes to a description made by the Forbes-listed

second richest person in the world, Warren Buffet, concerning credit derivatives, one of the relatively new financial instruments of great significance today. Warren Buffet, wrote in 2002 that derivatives are financial weapons of mass destruction", and described them as a "megacatastrophe risk" and as "time bombs, both for the parties that deal in them and the economic system".[5] The Norwegian translation of Kolko's essay, as it appeared in Le Monde Diplomatique, was telling: "Finansielle trolldomskunster" ["The wizardry of finance"] (Kolko 2006b). About the "magic turn" of capital, commenting on this already in 1976, Baudrillard writes that capital has "freed signs from its 'naïvety' in order to deliver them into pure circulation" (1976/1993: 7).

While generally acknowledged as being complex and virtual, and as circulating primarily in the closed circuits of investment banks, hedge funds, financial trading firms and transnational corporations, and their imperative role in global speculation, the understanding of the functions and impacts of derivatives is still largely lacking. As LiPuma and Lee reports (2004), derivatives seem at the surface level to be extensions of historically well-known financial vehicles, but they turn out on a deeper level to be considerably more complex than generally perceived in conventional economic accounts, also because the innovations in these instruments have been considerable.

The derivatives "market", barely known in 1980, is illustrative of the economic wizardry. The total value of financial derivatives globally was probably only a few million dollars in 1970 (LiPuma & Lee 2004: 74). It had grown to about $100 million in 1980, and to $100 billion by 1990, and to $100 trillion by 2000 (ibid.). To grasp the gargantuan size of this number it is worth mentioning that $100 trillion is "approximately the same as total global manufacturing product for the last millennium" (ibid.). It did not end there, far from it. In 2007 the Bank for International Settlements (BIS) estimated that derivatives outstanding amounted to more than $600 trillion, and by 2011 it was more than $700 trillion. The gross domestic product of all the countries in the world combined is only about 60 trillion dollars (BIS 2008/2007). Although not engaging in pure financial business and speculation, Hydro's "financial risk management" practices contributed to fuelling the expansion of the derivatives and others financial markets (Røyrvik 2011).

As LiPuma and Lee notes, the economistic view not only hides the creative effects of speculative derivatives, but possibly more significant is that it also substitutes surface appearance with underlying reality: "Derivatives create their surface appearance by creatively presupposing social contexts of use, which economistic analysis then (mis)takes as an objective, external, and imposed reality. This move guarantees that the field of financial practice will never include the principles of its own genesis, construction, or encompassment of other peoples and places" (2004: 64-65). This cultural space of derivative relations, argue LiPuma and Lee, "posits itself as a space lying beyond the power of representation" (ibid.). As the derivatives market by 2008 indeed had been reflected into something approximat-

ing "infinity", the Chinese metaphor of mirrors reflecting into infinity proved to quite apt.

According to Baudrillard (1981/1994), what is distinctive and innovative about the "hyperreal nebula" (as we might term these financial innovations), is that there is not only an implosion of the message in the medium (McLuhan), but also the implosion of economics, politics, culture, sexuality, and the social into each other, so that "economics is fundamentally constituted by culture, politics, and other spheres…" (Kellner 1994: 8). In such an analysis we see a reabsorption of everything into the surface of the sign, it is the apparent destruction of the symbolic by the semiotic and the subsequent ironic evolution of the semiotic order, the loss of referentials as Baudrillard terms it, the victory of the structural law of value.

Beyond the Power of Representation

One of the main ambitions of this article is to grasp the *raison d'être* and "hyperreal" quality of finance capital and managementality understood as underlying cultural logics of the neoliberal post-political epoch. Using Baudrillard's language, in the simulacra of postmodern consumer society people are lost in self-referential images and signs that have less and less relationship to an external reality "outside" the play of signs. Using the "You have 2 cows" story formula, a version of the story that humorously illustrates contemporary financial capitalism has been circulating on the web. It takes Icelandic venture capitalism as an example and it runs like this:

> You have two cows. You sell three of them to your publicly listed company, using letters of credit opened by your brother-in-law at the bank, then execute a debt/equity swap with an associated general offer so that you get all four cows back, with a tax exemption for five cows. The milk rights of the six cows are transferred via an intermediary to a Cayman Island Company secretly owned by the majority shareholder who sells the rights to all seven cows back to your listed company. The annual report says the company owns eight cows, with an option on one more. You sell one cow to buy a new president of the United States, leaving you with nine cows. No balance sheet provided with the release. The public then buys your bull. (Clemons 2009)

This Enron-style version of financial capitalism illustrates the disconnection between signs and underlying "realities" and how layers of simulation increasingly engulfs and constitutes economic relations. Significant for financialization, the definition of hyperreal, according to Baudrillard, is *an absolute correspondence with itself* (1981/1994: 47). Concurring with the main argument of this article that a key feature of the contemporary "managementalities" is their capacity for virtualization through constructing new simulated, yet ontologically distinct, spaces that LiPuma and Lie identified as lying *beyond the power of representation* (2004). The simulacra of simulation is founded on information, on operational "entities" and on cybernetic games; it is characterized by total operationality,

transparency and hyperreality, and it aims on total (automatic) control of the real, says Baudrillard (1981/1994: 21). We can imagine hyperreal finance capital as "modeled from the inside" (ibid.: 101), "no longer passing through the perspectival space of representation, of the mirror, and of discourse" (ibid.).

Following Baudrillard, the distance and sovereign difference between the map and the territory is gone in the era of simulation. Simulation is "opposed to representation", and as such it is opposed to the "principle of the equivalence of the sign and the real", and rather stems from "the radical negation of the sign as value, from the sign as the reversion and death sentence of every reference" (1981/1994: 6). Baudrillard outlines four phases or stages of sign-orders (ibid.). The first is the image or sign as a faithful copy, "a *good* appearance", "a reflection of a profound reality". In the second phase the sign is an unfaithful copy, "an evil appearance" that "masks and denatures a profound reality". This second phase marks the birth of the era of simulation and simulacra. Thus, the third phase "masks the *absence* of a profound reality". The sign as simulacrum pretends to be a faithful copy, but there is no original, and it masks this absence. The fourth stage is then full simulation, where the sign has "no relation to any reality whatsoever: it is its own pure simulacrum". In this final stage cultural products need no longer even pretend to be real, because reality is already conceptualized in hyperreal terms, and any notions of representation is considered naïve, oversentimental and lacking critical self-awareness.

According to Baudrillard simulation engulfs the whole "edifice of representation itself as a simulacra" (ibid.). But the simulacra is not unreal, neither exchanged for the real, it is "rather exchanged for itself, in an uninterrupted circuit without reference or circumference" (1981/1994: 6). Simulation in our period is a *strategy* of the real, of the "neo-real" and the hyperreal, and this strategy, this molding and management of the real, is a strategy of *deterrence* (1981/1994: 7). The closer one gets to the perfection of simulacra, "the more evident it becomes… how everything escapes representation, escapes its own double and its resemblance" (Baudrillard 1981/1994: 107). This relates intimately to financial capital and its increasing degree of autonomy from the "real economy", as well as to the concept of "real virtuality" that will be elaborated on below.

Another central feature of Baudrillard's description of various hyperreal phenomena revolves around his concept of hyperreality as an "operational simulation of social life" (1981/1994: 76). We are fascinated, says Baudrillard, "with the perfection of the programming and the technical manipulation, by the immanent wonder of the programmed unfolding of events" (1981/1994: 34). The operational simulation involves specific forms of *objectification*, namely the fragmentation and miniaturization of the world, the cutting up, regrouping and unconditional aesthetization of the real, into manageable, accountable and controllable units in a well-oiled machinery, originally constituting the factory, now also constituting the sociality of perfection and flux. Circulating in the space of transparency, this flux

of the masses, says Baudrillard, is characterized by a "programmatic discipline" "whose taboos are effaced beneath a veneer of tolerance, facility and hyperreality" (1981/1994: 76). These are the control mechanisms of the sociality of hyperreality, he says, coinciding with the concept of "managed democracy" discussed above.

As mentioned earlier in the text, when discussing the empirical case of the "house of glass" – Hydro's signal building – and the omnipresent (simulated) transparency of such a "polyoptic" space, Baudrillard calls the present era the "end of the Panopticon system" (1981/1994: 27), referring to Foucault's discussion of the "Panopticon" as a metaphor of modern disciplinary surveillance societies (1979). Something has changed, "the eye… is no longer the source of absolute gaze, and the ideal of control is no longer that of transparency" (1981/1994: 29). Panopticon and "the gaze" still rests upon an objective space, that of the Renaissance and the omnipresent of a despotic gaze, it is still a system of mapping. The present era, for Baudrillard, is beyond this stage, the opposition between seeing and being seen, has in many ways dissolved. In the end, as in the case illustrated by the Hydro "house of glass" and within the realms of "managed democracy" (Wolin 2008), "it is the same model of programmatic infallibility of maximum security and deterrence that today controls the spread of the social… *nothing will be left to chance*…, doomed to the descriptive transparency of mechanisms of information…" (Baudrillard 1981/1994: 34).

Finally, hyperreality is intrinsically "amoral", according to Baudrillard (1981/1994), a notion paving the way for understanding also financial capital and late capitalism as such. We could read him as if: Capital doesn't care! (Baudrillard 1976/1993) Hyperreality abolishes both fiction and reality, accordingly, and it abolishes all critical regression (by containing its own negation), it is just *fascination*, and within this fascination lies no implicit value judgment, nowhere in hyperreality does the moral gaze surface. Today, says Baudrillard, it is the "precession of the neutral", of forms of the neutral and of indifference" (1981/1994: 160) that is characteristic for what he calls the "*superficial transparency of everything*" (1981/1994: 87, italics in original). And all that remains "is the fascination for desert-like and indifferent forms, for the very operation of the system that annihilates us" (1981/1994: 160). According to Baudrillard all forms of disappearance fascinates us, including our own disappearance, and this type of melancholy and fascination is characteristic of the involuntary transparency of our general situation.

By emphasizing the "enchanted reality" of the globalized political economy (Comaroff & Comaroff 2001; Røyrvik 2011) and by supporting Clegg et al.'s (2004) description of finance capital as *hyperreal*, and by further illuminating this "hyperrealness" with Baudrillard's insights, we can describe finance capital as intrinsically *self-referential*, as lying "*beyond the power of representation*", as *operational* (vaguely seductive, vaguely consensual) and governed by fragmen-

tized and miniaturized economic "*entities*" suitable for the well-functioning and perfect flux of the system. It is further ahistorical, amoral, and its criticism is hypercriticism. Finally, finance capital has been enabled and facilitated by what Baudrillard calls the "structural revolution of value" (1976/1993: 6). This revolution has put an end to the "classical' economics of value" (ibid.) by dislocating the two aspects of value (the functional and the structural).

"Real Virtuality": Differential Orders of Reality

In concluding terms we can conceptualize *finance capital* as the simulacrum of both a materialist and idealist realization of the world in hyperreality, a realization that is brought on and facilitated, within the global neoliberal culture complex, through neo-managerial templates and "acts of entification" (Larsen 2010) creating the very "models" and "miniatures" of both economic, political and social hyperrealities. Because, and so our argument goes, it is not only finance capital that has taken on a hyperreal quality; such is also "the watershed of a hyperreal sociality, in which the real is confused with the model, as in the statistical operation" (Baudrillard 1981/1994: 29). To preempt some of the critiques leveled against Baudrillard's concepts of simulation and hyperreality, we prefer to label this distinct self-referential ontological space that lies beyond the power of representation as *real virtuality*.

In complementarity to the well-established notion of "virtual reality", in online games and elsewhere, where "reality-like" environments are created and simulated in virtual sign-worlds, the concept of "real virtuality" highlights both the inherent and self-sufficient self-referentiality, the "beyond representation", and at the same time the very real nature of the phenomena we are investigating. Consider in this respect the title of Martha Poon's (2012) short piece on the anthropology of finance: "Why does finance need an anthropology? …Because financial value is a reality". Expanding upon the notion of economic virtualism (Carrier & Miller 1998) – describing the way our lives are made to conform to the virtual reality of economic thought, and where increasingly the world is measured against economic models (rather than economic models being measured against the world) – our thesis is that in the political and cultural economy of the contemporary we see a move to a political and cultural economy of "real virtuality". Exploring the reification processes and the "product-making" practices and regulatory regimes of financialization, for example through transforming human sociality into credits and debts (Graeber 2011), the concept of real virtuality suggests that the current mode has mobilized and materialized economic relations and spaces with differential ontological (reality) statuses.

More generally to move beyond the critique of Baudrillard's somewhat binary model (sic!), we suggest tentatively an alternative model (sic! again) which seeks to counter some of the critiques of determinism, dualism and logical fallacy argu-

ably inherent in the strong version of Baudrillard's digital distinction between "real" and "hyperreal" (Kellner 1994). In the model of simulacra Baudrillard claims a correspondence between the *order of sign*; the time-specific *mode of production;* and the successive alterations of the *law of value*. The period from Renaissance to the Industrial era could be characterized by a position of the sign as "counterfeit", the mode of production as "extraction from nature" and the law of value as a "natural law of value" (1976/1993: 2). "The reality principle corresponded to a certain stage of the law of value," proclaims Baudrillard, referring to the Industrial era, with its "production" (maybe the only time there really is production?), "representation" and a "market law of value" (ibid.). Finally, the current era, what Baudrillard terms "the code-governed phase," is characterized by "simulation" rather than representation; "reproduction" rather than production; "structural law of value" rather than market law of value; and lastly, "hyperreality" rather than reality (ibid.).

Although Baudrillard sees interdependence between various modes of production, the order of the sign, the law of value, and the reality principle – and thus making an historical contextualisation and relativization of the reality principle – and even more so in *Symbolic Exchange and Death* (1976/1993) than in the later *Simulacra and Simulation* (1981/1994) (where the reality/sign dualism is more pronounced), he nevertheless keeps Reality as a fulcrum, a point of reference, in his conceptualization of Hyperreality in his distinction between 'a profound reality' and either the representations that "mask" this reality, or the simulations that escape and go beyond it.

Hyperreality, in contrast to reality, no longer needs to be rational, says Baudrillard, because it no longer refers to other than itself, no more does it "measures itself against either an ideal or negative instance" (1981/1994: 2). Hyperreality thus, is not rational, but *operational*. Within the theoretical framework of differentiated ontologies, suggested in this article, we argue that the hyperreal is still real, and that its irrationality (as Baudrillard terms it) is still rational; that our contemporary fascination for perfection and operationality is exactly a certain kind of rationality, not only an instrumental rationality but what we can call an "operational rationality" characteristic of the era of "managementality".

By illustrating what we identify as an extensive *concurrence* and *entanglement* of and between the signifier and the signified within a framework of ontologically stratified realities, our model grasps the simultaneousness in the genesis and existence of signs and "images" on the one hand and "realities" on the other. With such a perspective there is also a significant change from *a* profound reality to *several* profound realit*ies*. This differential model can thus be seen as a critique of Baudrillard's more digital or dualistically embossed model but it must also be seen as a continuation of the former.

Baudrillard's dual model of reality	Model based on a differential ontology
It is the reflection of a profound reality	It disjuncts and dissipates profound realities
It masks and denatures a profound reality	It unmakes and obliterates profound realities
It masks the absence of a profound reality	It makes and projects new profound realities
It has no relation to any reality whatsoever	It instantiates and disseminates ontologically stratified realities
It is its own pure simulacrum	It creates emergent realities

Figure 1. Digital and differential models of reality

In line with the main argument of the article we see the "hyperrealness" of corporate worlds and finance as examples of broader tendencies in the contemporary era of neoliberal crisis in capitalism. Reality's ontological spaces, or differential realities, are rearranged and recreated in certain patterns, instantiated and facilitated by templates of neo-management, and enacted and emerging not least on the vast and powerful canvas that comprises the world of the large globalized corporations and the generic move from industrial to financial capitalism. The argument has suggested that neo-management signifies the coming of age of "real virtuality" that constitutes the cultural logics of deep crises (in implicitly potential for transformation) in the contemporary. It instantiates the dovetailing of "money manager capitalism" and "managed democracy" into the subtle forms of post-political power and simulation embedded in the new managementalities, that are likely to define globalized corporate and cultural life under neoliberal auspices still for some time to come.

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Notes

1 See the journal *Social Anthropology*, Volume 20, numbers 1-3, 2012, for a stimulating scholarly debate on neoliberalism.
2 For an analysis of firms as total institutions, see Shenkar (1996).
3 The figure compares the market value of Hydro as a conglomerate comprising three main divisions (Oil and Energy, Aluminium and Agri) in 1999, with the combined market value of these three divisions as divested into three separate companies in 2007.
4. Quoted in Wray (2009: 814).
5 In a letter to the shareholders of Berkshire Hathaway Inc. Available online.

References

Alexander, Kern, Rahul Dhumale & John Eatwell (2005): *Global Governance of Financial Systems: The International Regulation of Systemic Risk*, New York, Oxford University Press.
Anderlini, Jamil (2008): "Prudence Guides China's outlook", *Financial Times*, 24 September.
Andersen, Ketil Gjølme (2005): *Flaggskip i fremmed eie: Hydro 1905–1945* [Flagship in foreign hands: Hydro 1905–1945], Pax Forlag.
Baudrillard, Jean (1981): *For a Critique of the Political Economy of the Sign*, St. Louis: Telos Press.
Baudrillard, Jean (1976/1993): *Symbolic Exchange and Death*, London, Sage Publications.
Baudrillard, Jean (1981/1994): *Simulacra and Simulation*, Ann Arbor: The University of Michigan Press.
Berle, Adolph A. & Gardiner C. Means ([1932] 1991): *The Modern Corporation and Private Property*, New Brunswick, NJ: Transaction Publishers.
BIS (Bank for International Settlements) (2009): "BIS Quarterly Review" (June).
Boltanski, Luc & Eve Chiapello (2007): *The New Spirit of Capitalism*, London: New York, Verso.
Brenner, Neil, Jamie Peck & Nik Theodore (2010): "Variegated Neoliberalization: Geographies, Modalities, Pathways", *Global Networks*, 10:2, 182-222.
Hudson, Michael (2000) "Capital, Capital Everywhere – How to Invest it Wisely?" Report to the Norwegian Shipowners' Association, 2000: http://michael-hudson.com/2000/08/capital-capital-everywhere-how-to-invest-it-wisely/ (accessed 2012-11-26).
Carrier, James G., & Daniel Miller (eds.) (1998): *Virtualism: A New Political Economy*, Berg Publishers.
Clegg, Stewart & David Courpasson (2004): "Political Hybrids: Tocquevillean Views on Project Organizations", *Journal of Management Studies*, 41:4, 525-47.
Clegg, Stewart, Martin Harris & Harro Höpfl (2011): *Managing Modernity. Beyond Bureaucracy?* Oxford: Oxford University Press.
Clegg, Stewart, Martin Kornberger & Tyrone Pitsis (2004): *Managing and Organizations: An Introduction to Theory and Practice*, London: Sage.
Clemons, Steve (2009): "2 Cows Economics", *The Washington Note*, 06 February 2009: http://www.thewashingtonnote.com/archives/2009/02/2_cows_economic/ (Accessed 2012-11-26).
Cloke, Jon (2009): "An Economic Wonderland: Derivative Castles Built on Sand", *Critical Perspectives on International* Business, 5: 1/2, 107-119.
Comaroff, Jean & John L. Comaroff (eds) (2001): *Millennial Capitalism and the Culture of Neoliberalism*, Duke University Press.
Courpasson, David (2000): "Managerial Strategies of Domination: Power in Soft Bureaucracies", *Organization Studies*, 21:1, 141-61.

Dalton, Melville (1959): *Men Who Manage: Fusions of Feeling and Theory in Administration*, New York: Wiley.
Davies, Gavyn (2011) "The World's Economic Centre of Gravity", *Financial Times*, 23 March 2011: http://ftalphaville.ft.com/2011/03/23/523231/the-worlds-economic-centre-of-gravity/ (accessed 2012-11-26).
Drucker, Peter F. (1954): *The Practice of Management*, London: Heinemann.
Drucker, Peter F. (1993): *Post-Capitalist Society*, New York: HarperCollins.
Dufour, Dany-Robert (2008): The Art of Shrinking Heads: On the New Servitude of the Liberated in the Age of Total Capitalism, Cambridge: Polity Press.
Foley, Stephen (2011) "What Price the New Democracy? Goldman Sachs Conquers Europe", The Independent, 18 November, 2011: http://www.independent.co.uk/news/business/analysis-and-features/what-price-the-new-democracy-goldman-sachs-conquers-europe-6264091.html (accessed 2012-11-26).
Foucault, Michel (1979): *Discipline and Punish: The Birth of the Prison*, New York, Vintage.
Foucault, Michel (1980): *Power/Knowledge: Selected Interviews and Other Writings 1972–1977*, Ed. C. Gordon, Brighton: Harvester Press.
Geelmuyden, Niels Christian (2005): "Pungen på vektskålen", *Bergens Tidende*, 16 October 2005.
Goffman, Erving (1961): *Asylums*, Penguin.
Hannerz, Ulf (2007): "The Neo-liberal Culture Complex and Universities: A Case for Urgent Anthropology?" *Anthropology Today*, 23:5, 1-2.
Harvey, David (1992): *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*, Malden, MA.: Wiley-Blackwell.
Hardt, Michael & Antonio Negri (2009): *Common Wealth*, Cambridge, MA: Harvard University Press.
Henwood, Doug (2005): *After the New Economy*, New York and London: The New Press.
Kallis, Giorgos, Joan Martinez-Alier & Richard B. Norgaard (2009): "Paper Assets, Real Debts: An Ecological-economic Exploration of the Global Economic Crisis", C*ritical Perspectives on International Business*, 5:1/2, 14-25.
Kellner, Douglas (Ed.) (1994): *Baudrillard: A Critical Reader*, Cambridge, MA.: Blackwell.
Kolko, Gabriel (2006a): "An Economy of Buccaneers and Fanatists: Weapons of Mass Financial Destruction." *Le Monde diplomatique* (October).
Kolko, Gabriel (2006b): "Finansielle trolldomskunster", *Le Monde Diplomatique*, 8 November 2006: http://www.lmd.no/index.php?article=1075 (2012-11-26).
Krugman, Paul (2009): "How Did Economists Get It So Wrong?" *The New York Times*, 2 September.
Larsen, Tord (2010): "Acts of Entification: On the Emergence of Thinghood in Social Life." In *Human Nature as Capacity. An Ethnographic Approach*, (ed.), N. Rapport, New York: Berghahn Books, 154-176.
Latour, Bruno (1996): *Aramis, or the Love of Technology*, Cambridge, MA.: Harvard University Press.
LiPuma, Edward & Benjamin Lee (2004): *Financial Derivatives and the Globalization of Risk*, Duke University Press.
Maddison, Angus (2001): *The World Economy: A Millennial Perspective*, Paris, OECD Development Center.
Minsky, Hyman (1996): "Uncertainty and the Institutional Structure of Capitalist Economies." Working paper no. 155, Jerome Levy Economics Institute, April.
Perez, Carlota (2002): *Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages*, Cheltenham: Edward Elgar.
Poon, Martha (2012): "Why does Finance Need an Anthropology? …Because Financial Value is a Reality", *Cultural Anthropology*, Theorizing the Contemporary, 'Finance,' May.
Reed, Michael (2011): "The Post-Bureaucratic Organization and the Control Revolution", in Clegg, S. et al. (eds), *Managing Modernity. Beyond Bureaucracy?* Oxford: Oxford University Press, 230-56.
Reinert, Erik S. (2007): *How Rich Countries Got Rich… and Why Poor Countries Stay Poor*, London: Constable.

Røyrvik, Emil A. (2011): *The Allure of Capitalism. An Ethnography of Management and the Global Economy in Crisis*, New York and Oxford: Berghahn Books.
Schinasi, Garry J. (2005): *Safeguarding Financial Stability: Theory and Practice*, International Monetary Fund.
Shenhav, Yehouda A. (1999): *Manufacturing Rationality: The Engineering Foundations of the Managerial Revolution*, New York: Oxford University Press.
Shenkar, Oded (1996): "The Firm as a Total Institution: Reflections on the Chinese State Enterprise", *Organization Studies*, 17:6, 885-907.
Sørhaug, Tian (2004): *Managementalitet og autoritetens forvandling: Ledelse i en kunnskapsøkonomi*, Bergen: Fagbokforlaget.
Sørhaug, Tian (2007): "Først og Sist", NRK, 2 March 2007.
Stone, Lawrence (1977): *The Family Sex and Marriage in England 1500-1800*, London: Penguin Books.
Suskind, Ron (2004): "Without a doubt", *The New York Times*, 17 October.
Swyngedouw, Erik (2005): "Governance Innovation and the Citizen: The Janus Face of Governance-beyond-the-State", *Urban Studies*, 42:11, 1991-2006.
Whyte, William H. (1956/2002): *Organization Man*, University of Pennsylvania Press.
Wolin, Sheldon S. (2008): *Democracy Inc.: Managed Democracy and the Specter of Inverted Totalitarianism*, Princeton and Oxford: Princeton University Press.
Wray, L. Randall (2009): "The Rise and Fall of Money Manager Capitalism: A Minskian Approach", *Cambridge Journal of Economics*, 33, 807–828.
Zizek, Slavoj (1999): The Ticklish Subject: The Absent Centre of Political Ontology. London: Verso.
Zuboff, Shoshana (1988): *In the Age of the Smart Machine*, New York: Basic Books.

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Towards Moral and Authentic Generalization: Humanity, Individual Human Beings and Distortion

By Nigel Rapport

Abstract

The article treats the issue of generality. How may one conceive of the relationship between the uniqueness of individuality and the commonality of the human (species and society) without reduction? Can generalization be made moral – eschewing stereotypes in society – and can it be made authentic – enacting a human science which treats the individual as a thing-in-itself? Simmel's seminal intervention was to see generality as a necessary kind of distortion. In contrast, this article offers rational models of the one and the whole which expect to retain the uniqueness of the one; and it suggests characteristics of human embodiment (capacities, potentialities) that speak to individuality and generality at the same time. The article ends with a reconsideration of distortion as a humane artistic representation, by way of the work of Stanley Spencer.

Keywords: Generalization; Cosmopolitanism; Individuality; Humanity; Representation; Distortion.

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Introduction

In this article I want to approach the old problem of generalisation but in the new context of cosmopolitanism, which I would define here as an attempt to apprehend the relationship between the human species and the individual human being as a scientific and a moral reality.[1] The nature of the human condition – its ontology – is that the universality of humanity represents itself always and only in the specificity of individual embodiment. This relationship is real and fundamental, different in nature to all other relations of a symbolic or discursive or rhetorical kind which human beings have constructed and to which they might be party: society, culture, community, nation. These symbolic relations, as constructs of language and classification, should not obfuscate the 'cosmopolitan' insight that all of humanity is one (a *cosmos*) and that human life manifests itself always and only in individual instantiations (in *polis*). Hence the starting point of my enquiry: there is a uniqueness to each of us, to every human being; our individuality is irreducible. How then do we assemble human beings together? How do we generalise upon the human, both for the purposes of social science and for the purposes of social policy? Generalisation is both an issue of scientific method and of liberal democracy (Amit & Rapport 2012).

Here is the ethnographer Vincent Crapanzano (2004: 6) expressing something of my quandary:

> I find that the singular has often been sacrificed to the general in the human sciences and that, more often than not, this has resulted in a distorting simplification of the human condition; in a failure fully to appreciate its ambiguous nature and the ambivalence it generates; in an implicit, if not explicit, emphasis on determinism; in an indifference to human creativity, transgressive possibility and imaginative play; and in a failure to address the question of human freedom.

But such a realization is not recent and takes us back at least to the seminal essays of Georg Simmel from 1908, 'How is Society Possible?' and 'The Problem of Sociology'. Here Simmel wrestled with the issue of generality and how it might be seen to relate to individuality. Generalization was, he felt, a *necessary* idiom, in whose terms human society might function *justly* and human science might function *rightly*. Hence, my concerns in this article are two-fold: I want to re-examine the issue of applying generalization both in the field of a rational human science and in the field of just, liberal statecraft. And the two concerns are really treatments of the same question: is it possible to conceive of the relationship between the uniqueness of individuality and the generality of the human (species and society) without reduction or corruption? Generalization might be necessary but can it also be made moral – eschewing stereotypes in society – and can it be made authentic – enacting a human science which treats the individual as a thing-in-itself? My course in the article is from the more theoretic to the more empiric,

for generalization is, finally, a very personal issue: how might I know another human being and be known?

Simmel's Distortions

Let me begin by rehearsing some of the points of Simmel's exposition and his conclusions. 'Society exists where a number of individuals enter into interaction', he begins (1971: 23), and its unity rests in the interaction of these individual elements. This means, moreover, that societies are structures inexorably composed of unequal elements, since the individual members are differentiated according to their natures, their life-contents and their destinies. A society may amount to a cosmos but it is nevertheless 'a web of qualitatively differentiated phenomena' (Simmel 1971: 19).

A liberal society will endeavour to engender a democratic equality, Simmel continues, by dealing with a reasoned *equivalence*, between people or functions or positions. However, any society must yet function on the basis of certain *distortions* which it decides upon and which operate as 'a priori, operative categories' (Simmel 1971: 12). It is only by means of these distorting categories that it is possible to move from individuals to members. For individuality is, by definition, incomprehensible: one can neither understand that of another nor incorporate it by extraneous measures. '*Perfect* cognition presupposes perfect identity' (Simmel 1971: 9), and we can neither know nor represent an individuality that is not our own. For the construct that is society, therefore, certain distortions must be brought to bear upon individual reality: 'we see the other person generalized, in some measure' (Simmel 1971: 9).

Three main kinds of distortion can be identified, Simmel elaborates. They might be termed the 'human', the 'personal', and the 'social'. In the first, we conceive of each human being as being a representative of a certain *human* type such as is suggested (to us) by his or her individuality: the individual becomes for us 'a general human being'. In the second, we conceive of each human being as being an ideal or full or perfect representative of himself or herself: we idealize or exaggerate his or her personality (such as we perceive it) so as to make him or her into 'a general version of himself or herself'. In the third, we conceive of each human being as representing his or her social placement or membership or role: the individual becomes 'a general group functionary'. Society is possible, Simmel concludes, by virtue of generalizations which operate as so many *a priori* veils which at once detract from individuality and substitute for it.

The problem of sociology, indeed of all science of the human, is that whereas the explanation of human facts most frequently entails 'an exercise of psychological knowledge', it is the case that 'the scientific treatment of psychic data is not thereby automatically psychological' (Simmel 1971: 32). The science of society is

a study of certain structures, symbols and categories that derive from psychic creativity and are imbued with psychological meaning and yet which attain an objective reality which will possess its own formal properties: patterning, compatibilities, development. One can say that the forms of social life operate as kinds of veil behind which the psychic contents live. It is impossible to accede to generality in any other way, whether as members of society or scientists of society. There may be 'always one reality' and only one reality, but we cannot grasp it in its immediacy and wholeness; we can consider it only from particular viewpoints and attempt to make it into 'a plurality of mutually independent scientific subject matters' (Simmel 1971: 33).

It was the human tragedy, Simmel concluded, that individual things-in-the-world could not be known in themselves but only in terms of extraneous forms. Hope lay in a kind of dialectical method by which one zigzagged between forms and contents – between one kind of representation and another – and thereby came to an understanding of how one influenced the other into gaining a mutual state of co-presence. But even here one dealt with *representation*: a zigzag between one kind of distortion and another.

It becomes clear the extent to which Simmel's sociology subscribed to Kantian notions of *phenomena* as against *numina*: the extent to which the world becomes an object of contemplation and intention only by way of categories of human perception. Simmel did not agree with Kant that these categories were 'transcendent', or independent of historico-social process. For Simmel, categories achieved objectivity as a result of the ongoing process of social interaction: they emerged from the flux of life and derived from experience, in such a way that they stood formally over and against the noumenal as kinds of practical bulwark. Nevertheless, they were categories: the transition from individual to human society and from individual to human species was effected by a process of generalization which transformed the unknowable thing-in-itself into idealized and ideal-typical forms. The forms acted as kinds of necessary approximation and equivalency, with their own histories and relations, by which one hoped the 'tragedy' of the veils surrounding truth might be ameliorated by distortions which were 'reasonable'.

Beyond Simmel

Simmel was not entirely happy with his conclusions, and I am not either. This becomes clear in other observations of his, in *Schopenhauer and Nietzsche* (1991). Let me elaborate briefly.

It was Kant's formulation that everything observed and known – observable and knowable – is a phenomenon: something delineated by human powers of cognition, by its being incorporated into a human symbolic scheme. Human cognition

transforms things-in-themselves into symbols with homes in conceptual frameworks; beyond this, reality is left as it is. Human existence thus gives rise to a certain plurality: things do not remain only things. As well as being parts of a natural order beyond knowledge and definition, things come to be rendered as part of any number of symbolic orders. The things of the world become symbolic forms for us human beings, as well as maintaining their status as real objects beyond any forms and any relations to us, untouched in and for themselves.

But this also smacks of relativism – idealism, certainly – and Simmel wished for a means to re-ground form in the real and to make human *a prioris* more authentic to being. The solutions he preferred came from Nietzsche and from Schopenhauer. For Nietzsche, according to Simmel (1991: 142-8), there are fundamental aspects of the human condition which are independent of social formation even though they might of necessity be expressed in social forms. The individual, for instance, is a final element of being – there is nothing greater, socially, than his or her organicism – and it is this individuality which human action inevitably expresses. Personality, for Nietzsche, becomes the ultimate value of existence: a full and mature individual personality possesses a value that is absolute and transcendent. This is because *humanity*, which also exists as a fundamental aspect of reality independent of social formation, exhibits itself in individuals. "Humanity follows a *single* line to oneself", as Nietzsche advises (1979: 86). Even if individuals only appear in society, and even if there is an impossible dichotomy such that social forms are never able to subsume the individual, still there is a sense in which there is a continuous, real, evolutionary line between the human species and the particular form of life which the individual human being embodies. Individuality and humanity have a conjoined reality against which that of social forms, norms, concepts and categories are recognisable as contingencies. There are real human values and interests and real individual natures. It is real individual nature to be unequal, for instance, Nietzsche asserts. Differences and distances between individuals are natural facts, and these differences are the hope of evolution: humanity proceeds forward not as an assemblage but through its particular, successful individual expressions. Humanity cannot be defined apart from individuals, while the latter possess ultimate value because of their embodiment of states or moments of the former. Even though there can be no social comprehension of individual being and its worth, still individuals, as things-in-themselves, possess a recognisable objectivity and meaning. Each individual embodies the evolutionary culmination of the human species. Their meaning is their uniqueness, their difference and distance from everything else: here is enshrined the future of the species as a whole.

Morally, Simmel was fearful of identifying with Nietzsche too completely. How might one ward off extreme self-centeredness and selfishness, and solipsism? He was happy to turn to Schopenhauer, therefore, to complement the Nie-

tzschean picture with an emphasis on social obligation and identification. The objectivity of social forms was a means to inculcate a sentiment of belonging and an ethic of duty. One could be at once individual *and* recognize a duty to a humanity which manifested itself in a current social whole, an ambient society. Through social forms, the individual could find meaning beyond himself or herself; there could be social unity and mobilization towards common ends in a disenchanted world.

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Rather than Simmel's conclusions as such – my sympathies would remain with the Nietzschean argument (Rapport 1997, 2003) – I am interested in the way in which his search for a rational basis to the issue of generality, both in human society and in human science, led him from a relativist or idealist position which concluded that the general was inevitably a distortion (with its roots in necessity and in effecting certain practical consequences) to a more realist position which would seek to ground the relation between individual human beings in *empirical reality* and not merely in their *sociocultural phenomenalism*. This is a key distinction: seeking to posit generality as real and not merely as a construct – not simply a means to label and stereotype, define and process, an otherwise unknowable individuality. The generality of being part of a social class or cultural category – 'woman', 'Muslim', 'Welsh', 'baby-boomer', 'hysteric', 'cleric' – bears no necessary relation to the true between-ness that might exist among individual human beings as members of a universal species. I would wish the contingencies of the sociocultural to be overcome and for generality to be both a route to genuine knowledge of the way in which the individual instantiates the human, and a route to genuine democracy in which the individual and the liberal state share a relation of mutual identification: the individual sees himself or herself in the state, the state sees itself as an aggregation of individuals. The individual is unique and yet scientifically accommodated as an exemplar of the species: the individual is unique and yet the subject of statal policies of universal recognition and attention.

In what follows I endeavour to proceed along both the above routes: to the generality of a rational human science; and to the generality of a liberal human society.

1. Generality and the Route to Human Science

The issue of generality in human science is, to repeat, how to know the unique human being – Anyone – in a general way without thereby traducing or reducing that individuality. How is the human to be seen manifesting itself in the individual in a fashion that does not detract from seeing the latter as at the same time *sui generis*?

Two ways to resolve the issue may be, first, in terms of specific *models* of the one and the whole which retains the uniqueness of the one, and second, in terms of *characteristics* of human embodiment that may speak to individuality and generality at the same time.

1(a) Modelling the One and the Whole

I am wary of certain arithmetic procedures for averaging-out difference, such as the 'mean', the 'median' and the 'mode', since they would have one figure stand for all: a common denominator. The average figure would seem to possess a metonymic relation to the original, different instantiations: one averages or generalizes in such a way that one figure replaces and gives on to the many. But I do not believe that individual human beings can be averaged in this way: their relationship towards one another is more metaphoric than metonymic. The move from individual to human should not be conceived of in terms of replacement or integration, I would say, but in terms of aggregation or juxtaposition. Each individual is a complete and irreducible instantiation of the human, and their rational identification as human must be achieved with their differences being treated as intrinsic to their identity.

Three viable models suggest themselves to me, based on what I call the flower, the family, and the spectrum.

The flower is a way of naming Nietzsche's idea that the individual human being is the culmination, the florescence, of the evolution of humanity. The line of the species ends, at present, with the individual who is as responsible as any other for how it continues into the future. As the florescence of the human species the individual carries within himself or herself the entire human phylogeny and yet amounts to a unique expression, embodying the random mutation of one procreation. The individual heritage and parentage is clear, his or her placement in an evolutionary history is generally assured, and yet his or her nature is unique and non-predictable, and that of his or her progeny equally so. As a flower or flowering, the individual human being is both generalizable and unique. Nietzsche's writings themselves serve as an analogy: they possess a German linguistic form and are imbued with stylistic expressions of literary heritage, and yet they represent a flowering of his unique individual creativity. No one else wrote Nietzsche's oeuvre; until he had done so its progeny was impossible; even after he had done

so, its progeny remained unforeseeable. *The flower* combines a common heritage with unique current expression.

The family is a borrowing of Wittgenstein's conception of the polythetic category. At its simplest this can be given the shape: (ABC, CDE, EFG, GHI...). In slightly more complex form: (ABC, BZG, YHF, JKL, AGL...). In more complex form again: (Abc, A11, 1c@, b@3, 3£@...). Key to the polythetic category is the notion that members of the category need share no feature in common. Rather there is a set of features, a bundle of traits, shared randomly among them. There is no necessary limit or closure to these traits (no alphabet) and their particular possession and also their ordering is unique to each member, making each individual. It is, in Wittgenstein's (1978) parlance, as if each individual shared a 'family resemblance' to others in the category, the family nose here and here, the family eyes here and here, but no one family trait was shared by all, and in combination, too, the assemblage amounted to a unique embodiment. The individual is both generalizable as a family member and uniquely himself or herself. *The family* combines a common set of characteristics with unique combination of these.

The spectrum or sliding scale images a range of possibilities within which individual members find themselves while each occupies a unique position on the scale. Human beings may, then, need a certain daily calorific intake to survive: too little or too much proves fatal. Certain substances, moreover, may be absolutely excluded from supplying this total – those that are too stony, say, or too prickly or otherwise toxic to the human constitution. Within this range, however, individuals may be unique regarding their optimum calorific intake and their favourite dietary items and meals. Anyone is recognisably human in terms of the spectrum between whose poles life is sustainable and yet irreducibly themselves in the expression which human life achieves in them. The spectrum combines a common range of possibilities with unique actual location.

Each of these – flower, family, spectrum – allows me to model a universal relationship between individual and totality. I can rationally apply them to real situations while still being assured that the generalities they deliver do not negate my also affording testimony to the uniqueness of the individual case.

The models work together, as should become clear when I consider one expression of the human in more detail: the body.

1(b) Bodily Characteristics as Individual and General

There is a universality to human embodiment. One can say that the capacities of the individual body, its capabilities and liabilities –in a word, its nature – exhibit a generality.

One can assert, for instance, that all individual human bodies possess *a distinct materiality* as living organisms. All have boundaries and componential clusters of cells. The constituents of one body cannot be at the same time those of another

(though they might be over time). Yet, this characteristic of organic differentiation is at the same time shared. There is a human generality to our individual materiality: the relationship is a family one, and also a flowering, the culmination of one material history. Then again, all individual human bodies, as material things, possess *a distinct spatiality*. The space that is occupied by one cannot at the same time be occupied by another. And this property is common, reciprocal: we are alike as human beings in needing to occupy a space, at any one time, that is uniquely our own. Yet, while the dimensions of own personal bodily space will be unique to each of us, there is a human generality to be found in the fact that the living individual organism requires an irreducible space of its own. Here is also a family relationship, and a spectral one, the spatiality of each of us having elements – cells, noses, sexual organs – whose arrangement is unique within a human range.

Related to this is the fact that all individual human bodies, as independent organisms, possess *a distinct temporality*. The time and the timing of no two lives is identical – the developmental processes, the longevity – and each must occupy its own temporal dimension and no other. But again this is something that we share: the uniqueness of an individual time of life is general among all human beings. There is no stopping, no reversing, no repeating, no doubling for anyone. The relationship is a flowering, and individual's temporality being derived from a species history, and also spectral, within a human range. The materiality, spatiality and temporality of the individual human life are accompanied by *an environmental range*, a spectral relationship as such, which characterizes their possible bodily workings. There are environmental conditions suited evolutionarily to the possible life-chances of the species. Within this range, however, it is not possible to generalize upon optimal positionings. The unique materiality of each body, its unique experience of attending to environmental conditions, means that the individual finds his or her own habituality and equilibrium. The range of possibilities concerning bodily functioning in environments bespeaks both a general delimitation and a wide individual variability.

Lastly, there are *capacities* of the human body that identify it as a general phenomenon. These operate as universal potentialities, albeit that in their usage or deployment or expression, in the *substantiation* of general human capacities, the universal is transformed into the individual. There is, for instance, a general capacity to imagine a human life: it is an individual substantiation of this capacity to write the plays of Shakespeare, the philosophy of Nietzsche. There is the general human capacity to feel pain and find something laughable; also, the general human capacity to sense, perceive, conceive, ideate, imagine, interpret, define, intend, wish, hope, know, recall. The human being can express himself or herself, and interpret the expressions of others. The human being can be self conscious, reflexive, introspective, ironic; he or she can effect changes on his or her own

body and the world that lies beyond the borders of that body. The human being creates world-views, provides personal contexts to his or her life, and he or she can construe a life-project: the trajectory that his or her life should or might or will take within that world and among the others that it contains. None of this talk of capacity, however, reduces the individuality of substance that a life does actually contain. A range of factors, furthermore, may supervene upon these capacities and affect their realization: from individual intentionality to circumstantial (social, cultural, historical) circumscription, to accidental or random intervention –the genetic mutation, the car crash, the famine that subverts the capacity to reproduce. Notwithstanding, the human might be known by the general capacities which it encompasses; while the individual is known by the unique fashion in which those capacities come to imbue a life. The relationship between capacity and substance is a flowering, from phylogeny to ontogeny, and also familial, the substance of no two lives being the same however much history, society and culture may colour the set of elements – purdah, space travel, rugby football – of which they are composed.

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Symbolic modelling (1(a)) and bodily characterization (1(b)) would appear to be two routes along which one can significantly advance towards establishing general truths about the human condition – authentic knowledge and moral insights – while at the same time not detracting from or threatening the integrity of the individuality in whose terms the human everywhere expresses itself in and as life. Let me turn to the social practice upon which these general truths might prove consequential.

2. Generality and the Route to Liberal Society

In formulating a 'cosmopolitan' version of justice, a civil treatment of all human beings in all times and places, Kant (1785/1993: 36) isolated what he termed 'The Formula of Humanity as an End in Itself': '*Act in such a way that you always treat humanity, whether in your own person or in the person of any other, never simply as a means to an end, but always as an end in itself*'. This is an ideal, but I would approach it by conceptualizing a liberal society as that set of legal, institutional and procedural norms which recognize individual members as things-in-themselves – the ends of whose existence is for themselves to define – and not as means by which other, typical ends are made manifest. The 'problem' of society, as Simmel elaborated, is recognition. Is it possible to treat the individual members of a society – for a state to know its members and for its members to know one another – except by way of the kind of distortion that he outlined? Can the generality neces-

sary for social structuration accommodate individuality except by way of stereotypification and labelling: turning individuals into types of human being, types of person, types of role-player?

The problem is also one of regulation. Society may be conceived of, indeed, as a state of regulation or intervention. The liberal society is a state that endeavours to ensure the lives of individual members are treated as ends not means: it intervenes in a rationalized fashion so as to maintain a Kantian 'kingdom of ends'. But how may individuality be legislated for?

A solution derives, perhaps, from an identification of capacities, or potentialities, as distinct from any substance. The liberal society – liberal laws and institutions – recognizes individuals on the basis of universal capacities of human consciousness. The offices of the liberal state intervene in efforts to guarantee that individuals' *capacities* for creating the substance of their lives, for determining their own ends, is afforded as much space for expression as possible. Iris Murdoch (2001) has suggested a definition for 'goodness' as abstaining from visiting one's desires upon others: the 'good society' is defined less in terms of 'doing good to others' than in 'refraining from doing others harm'. Goodness resides in a kind of space in which individuals can 'come into their own'; one cannot foresee and does not attempt to prescribe what this latter might entail in terms of the substance of a life, but one hopes to afford each an optimum of space for its expression, and to maintain that expression as a right. The problem of society – to institute arrangements which balance a kind of spatial individuality with a regulative generality – is settled by way of a guaranteeing of individuals' capacities to come into their own.

Let me reprise, however, the particular issue with which this article is most concerned. How are the offices of the liberal state to know its members and to intervene in individual lives in such a way as to recognize and to assist (and not obstruct) the fulfilment of their individuality? How does one treat that aspect of a unique temporality that is the individual only gradually approaching the mature human capacity to create self and world? How does one envisage 'the space to come into one's own' when the unique materiality that is an individual life is born of others (that of parents) and remains surrounded by others (family, friends, community) which would wish from it a special allegiance and sympathy? How does one know others' rationally, in terms of universal aspects of their individual human embodiment, when they might insist on knowing themselves (and others) in terms of non-rational ideologies and particularistic essentialisms that would subvert any universalistic conception of Anyone?

The key term is, I believe, potentiality. A liberal society is one where it is recognized that the individual embodies the human capacity to interpret truth, to determine identity, and always to become anew. The state is here, most importantly, the guarantor of the individual right to exercise the capacity to reflect and to be-

come: to become other than it is at present; to become other than *any* existing expression of the human condition; to become other than even it itself knew it might. Again, one does not deal in substances but in capacities: the offices of the state are not interested in what is created and chosen only that it is chosen and might be unchosen, recreated. If the child is that immature human being for whom choices are inevitably made by others, then state institutions are the guarantor of the immature individual's right to unchoose, to exit from parental choices and ideologies, at the point of maturity. The role of state institutionalism is further to ensure that no parental influence makes an unchoosing later impossible: the ideal is to conceptualize every moment as a possibly radical becoming, and every choice as free from extraneous conditioning. Given the unique temporality of an individual life, the ontogenetic consequence of each of us inhabiting only one, continuous biography, such free choice opening up at every moment of our lives will remain an ideal. But the criterion of state intervention can be nevertheless based on this: is this a circumstance in this individual's life whereby an unchoosing, a future exit strategy and a wholly new rechoosing, becomes less than likely given the necessary range of conditions within which human consciousness might flourish?

A liberal society, however rational its arrangements, will never represent an exact science. Can liberal laws, institutions and procedures encompass individual lives such that they remain ends in themselves: regulate and administer to lives such that any interventions treat their individuality rather than a kind of typicality? I say 'yes', where the state knows the individual as a potentiality and legislates on behalf of its members on the basis of such potentiality. The deliverances of science concerning human-individual capabilities and liabilities – the materiality, temporality, spatiality and range of individual human lives – are translated into rational policy. The individual is approached not as he or she is in terms of particular present or past substance – or the substance of any relational affiliation (family, community, ethnicity, church) – but as that being possessing the capacity always to be beyond current identifications (Rapport 2010). The procedures of the liberal state attempt to do justice to that capacity to go beyond by affording the space in which individual creativity of self and world may find expression.

Conclusion: Distortion Revisited

When your life is most real, to me you are mad (Olive Schreiner 1998: 69)

I have been concerned in this article with ways that might give a rational foundation to the generality of human individuality which is non-reductive, both for the purposes of a human science and of a liberal society. I am keen, too, to explore the different ways in which one can do justice to the paradoxical relation between the individual and the human. How to generalise across the dialectic between individual and human such that the accommodation of difference by sameness involves an authentic assessment? In our individuality we are at the same time most distant from one another (most 'mad', as Olive Schreiner put it) and most the same.

I end by reconsidering distortion, the theme with which I began. But rather than the distortions which Simmel felt were pragmatically and morally necessary in order for society and sociology to function, I approach distortion as evidence of the attempt to represent the individuality of another. Distortion arises from being true to the gratuitousness, the radical otherness (the 'madness' (Schreiner)) of another human psyche as it seems from the perspective of one's own (Rapport 2008). One cannot know that other as it is in itself and for itself. However, I would argue that it remains the duty of a human science and a human morality – as of a human art – to make the attempt, for then one seeks to do justice to this perfect (and unique) instantiation of the human, and one attests that only through the individual can one hope the better to know the species, its capabilities and liabilities, and better to provide for its fulfilment. More proximately, one recognises that any collectivity, any society, social grouping or community, is comprised of conscious individuals: 'constituted by self consciousness', as Anthony Cohen (1994: 146) phrases it, 'substantiated by the meanings which conscious selves impute to received [social-symbolic] forms'. 'If we do not do descriptive justice to individuals', Cohen concludes (1992: 229), 'it is hard to see how we could do it for societies'. Approaching the generality of the human through the particularity of the individual, and accepting the distortion as inevitable evidence of the paradox of that relationship, becomes both best scientific and moral practice.

My approach to distortion is motivated by the work of the great twentieth-century British artist, Stanley Spencer, in particular a set of paintings which he named 'The Beatitudes of Love' (1937-8). Spencer professed that these eight paintings were the ones he was the most loath to part with: 'I can do without all my paintings except these' (cited in Collis 1962: 142). The series was 'more genuine' than anything else he had completed. Here is 'Contemplation' (1938).

Oil on canvas, 91 x 61 cms, Stanley Spencer Gallery, Cookham [© The Estate of Stanley Spencer 2012. All rights reserved DACS.]

What Spencer felt he had achieved in 'The Beatitudes of Love' was to gain a true appreciation of the individual at the same time as the composition displayed a human unity and singularity. 'I have never seen any paintings that more truly reveal the individual', he wrote shortly after their completion, while yet 'each of the pictures shows the twined and unified soul of two persons' (cited in Collis 1962: 141-2). Spencer often wrote long commentaries in accompaniment of his paintings, words and paint complementing his work of self-expression. Of 'Contemplation', he writes that: 'it is of people making themselves endlessly acquainted with each other through passion and desire' (cited in Pople 1991: 387); 'the figures are engaged in contemplation of each other, as is expressed by their rapt gaze, as though they would never stop looking' (cited in Collis 1962: 141).

I cannot draw more deeply here on the philosophy behind Spencer's statements (cf. Rapport 2003: 179-211), but I would address the issue of his painterly style. The series was not well received by Spencer's British audience. Why the arresting and grotesque figuration, the apparent ugliness and deformity, and all but denuded of background? Even friends and erstwhile admirers found them 'terrible' to contemplate and refused to find that people were really like that (Bell 2001: 147). Spencer himself admitted to some 'consternation' when he first realized, on their completion, how he had departed from people's 'normal appearances' and dimensions; for it was not a deliberate affectation or the outcome of a preconceived plan. He stuck with the distortion, however, and defended it. Distortion could be seen to be intrinsic to the composition, the conveyance of the picture's meaning, he elaborated (Spencer 2001: 186-8). The distortion manifested the strength of emotion and desire, the imaginative integrity and 'spiritual intensity', the purity and clarity of vision, as he attempted artistically to express two things: his intuitive knowledge of another human being, and his knowledge of the relation that these others had to one another. Put in his own verbal idiom, his 'metaphysic of love', Spencer (2001: 165) explained that: 'distortion arises from the effort to see something in a way that will enable [me] to love it': it is the 'loving' artist who is able to begin lifting 'the barrier' to mutual comprehension whereby individuals might 'reveal themselves meaningfully' to one another. Imagine how individual passers-by in the street would appear, Spencer later recommended to a radio-interviewer, if they were stripped of their fashionable accoutrements, the stays of their status and position. His art revealed them in their reality, his representation animated by an inner awareness of identity and relationality.

In the terms of this article, here is the distortion that derives from wishing to see others for what they are. What the artist sees is a distortion of what he or she takes to be normal, ordinary, conventional, because what is being espied is the irreducible specificity of others' individual identity. But the artist, as self conscious human being, is capable, indeed duty bound, to make the attempt. Distortion thereby expresses the 'drama' of a human composition: sameness and differ-

ence in paradoxical relation. In effecting this drama, the artist gives the world an insight into the 'reality' of human unity: certainly Spencer found the composition of individuality and totality which his paintings revealed to him 'remarkable' (cited in Collis 1962: 141).

Spencer was unable to reconcile the public to these paintings: he even hid some of them from view for fear of prosecution on grounds of pornography. He felt lonely but he did not recant: the compositions were new and unique and were revealing of a 'hoard of significant meanings to life' (Spencer, cited in Collis 1962: 142). Existing laws and conventions may seriously threaten but the 'ghastly vulgarity' of such could not touch 'the fullest extent of inspirational powers at the time of the conception of the idea', nor the insights such 'inwardness' afforded concerning human mutuality (Spencer, cited in Bell 2001: 153). Spencer's only regret, he attested (2001: 230), was that the limitations of human anatomy meant he could not 'swallow' the world whole: some 'misshaping' had to occur when an individual brought the world within his or her personal representational schema, but the attempt was necessary and worthwhile in itself. The 'failure' of distortion was itself testament to the impossibility of occupying a position other than an individual's own and the effort represented that truth.[4]

This work of Stanley Spencer may also appear an odd place for the article to conclude. My stance is rationalist: it is reason, as opposed to divine revelation or reliance on traditional authority, that can and should play a dominant role in enabling us, first, to gain knowledge of ourselves and our world and, second, to implement social arrangements for human betterment and freedom. But I also want to suppose that the general truths to which reason introduces us, universal and objective, can and should accommodate the objectivity of subjectivity: one would do justice to the absolute irreducibility of individual self-consciousness and identity. One recognizes the mix of modalities that comprise consciousness: emotion and passion, practicality and aesthetics, the narrations of hope and remembrance, alongside reason. Yet the existential truth of our individuality, our complexity, our imperfect situationality (our partiality), need not detract from our commitment to that Enlightenment project of overcoming both nescience and injustice.

While the mysterious artistry of distorted representations may seem a distance from the will to account rationally for the individual among the totality of his or her human fellows, then, I recall Popper's encouragement that no source of knowledge should be ruled out of the scientific canon at face value, and I recall the problematic with which Simmel launched his scientific study of society: how is it possible to know the individual other except as a type? In my estimation this corresponds to Stanley Spencer's project, wishing to portray the human individual, uniquely and in juxtaposition, as an authentic irreduction. His kind of distortion is preferable to Simmel's, however, because it is a general composition de-

rived not from stereotypification but from a commitment to recognizing and to treating radical individual otherness as a thing-in-itself.

One reaches the moral conclusion that seeking to represent the *substance* of another individual human other results in a worthy distortion; and one reaches the rational conclusion that seeking to accommodate rationally the *capacities* of the individual human other is a route to human science and free society.

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Notes

[1] A fuller treatment of my theme appears in: *Anyone, the Cosmopolitan Subject of Anthropology*, by Nigel Rapport, Berghahn Books, Oxford, 2012.

References

Amit, Vered & Rapport, Nigel (2012): Community, Cosmopolitanism and the Problem of Human Commonality, London: Pluto.
Bell, Keith (2001): *Stanley Spencer*, London: Phaidon.
Cohen, Anthony (1992): "Self-conscious anthropology", Judith Okely & Helen Callaway (eds): *Anthropology and Autobiography*, London: Routledge, 221-41.
—— (1994): *Self Consciousness*, London: Routledge.
Crapanzano, Vincent (2003): *Imaginative Horizons*, Chicago: University of Chicago Press.
Collis, Maurice (1962): *Stanley Spencer*, London: Harvill.

Kant, Immanuel (1785/1993): *Grounding for the Metaphysics of Morals*, Indianapolis: Hackett.
Murdoch, Iris (1970): *The Sovereignty of Good*, London: Routledge.
Nietzsche, Friedrich (1979): *Twilight of the Idols and The Anti-Christ*, Harmondsworth: Penguin.
Pople, Kenneth. (1991): *Stanley Spencer*, London: Collins.
Rapport, Nigel. (1997): *Transcendent Individual: Towards a Liberal and Literary Anthropology*, London: Routledge.
—— (2003): *I am Dynamite: An Alternative Anthropology of Power*, London: Routledge.
—— (2008): "Gratuitousness: Notes towards an Anthropology of Interiority", *The Australian Journal of Anthropology*, 19:3, 331-49.
—— (2010): "Human capacity as an exceeding, a going beyond", Nigel Rapport (ed.): *Human Nature as Capacity: An Ethnographic Approach*, Oxford: Berghahn, 1-26.
Schreiner, Olive (1998): *The Story of an African Farm*, Oxford: Oxford University Press.
Simmel, Georg (1971): *On Individuality and Social Forms*, Chicago: University of Chicago Press.
—— (1991): *Schopenhauer and Nietzsche*, Urbana: University of Illinois Press.
Spencer, Stanley. (2001): *Stanley Spencer: Letters and Writing* (ed. Adrian Glew), London: Tate.
Wittgenstein, Ludwig (1978): *Philosophical Investigations*, Oxford: Blackwell.

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Standardized Flexibility: The Choreography of ICT in Standardization of Service Work

By Maria Røhnebæk

Abstract

This article is based on a research project that explores the proliferation of information and communication technology (ICT) in public services. Furthermore, the research explores how the enhanced presence of ICT relates to efforts to increasingly individualise the service delivery. It can be argued that enhanced individualisation requires increased levels of discretion and flexibility. At the same time, this flexibility needs to be implemented within a standardized framework to ensure due process and to meet demands for efficiency. As local-level work practices in the public services are increasingly being enabled through ICT, the information systems can thus be seen to offer 'standardized flexibility'. Hence, the information systems work as both enablers of flexibility and as controllers of the same.

This research explores how this duality manifests empirically at the local-level of the Norwegian employment and welfare services (NAV). It focuses on the interface of the information systems and local-level employees. In this article, I portray the role of the information system, Arena, with regard to how the front-line employees structure and organize their work. This portrayal reveals that the information system reflects an ideal world which is out of tune with local working conditions. The employees are thus facing gaps between the ideals of the system and their actual work context. The main purpose of the paper is to illustrate how the employees deal with this gap; I identify three types of responses and strategies. Moreover, I suggest that the relationship between the information systems and different kinds of local responses may be fruitfully analysed by drawing an analogy with choreography and dancing. The second purpose of this article is thus to outline how the metaphor of choreography may provide a suitable theoretical lens for analysing ICT-enabled standardization of work.

Keywords: ICT, Welfare Services, Standardization, Flexibility, Tinkering, Choreography

Introduction

Several scholars have argued that attempts to improve horizontal integration coupled with increased individualisation and tailoring of services are central characteristics in the contemporary development of public services (Ling 2002, Pollitt 2003, Kernaghan 2005). In this respect, ICT may be seen to be an enabler, as argued by Dunleavy et al. (2006) who proclaim the death of NPM and the rise of 'a digital era governance'. When considering the proliferation of ICT, the label of digital governance would seem appropriate. This article questions, however, a simplified reasoning whereby the increasingly prominent role of ICT is assumed to facilitate enhanced individualisation of public services. It is argued that there is a need to critically examine the actual role of technology on a micro-level to grasp what these transformations entail. Hence, this research is based on a case study of an innovative and comprehensive effort at horizontal integration; the reformation of the Norwegian Welfare and Employment Services (the NAV reform). The focus is on the role of internal digital information systems in these processes of change.

The analysis and discussions of the case material is centred on the tension between flexibility and rigidity. The following dilemma may be sketched out: enhanced individualisation and tailored services require flexibility and room for discretion at the operational level. At the same time, standardization is required to ensure due process and efficiency. By focusing on how routines and the standardization of work practices increasingly are ICT-enabled, the issue of rigidity is brought to the fore. This leads us to the question: how can ICT, which on a certain level entails rigidity, support organisational processes that aim for enhanced flexibility? By exploring this issue empirically in the context of NAV, I draw attention to discrepancies between expectations of the system and local working conditions. The primary purpose of this article is to describe the employees' various responses to this gap. I identify three types of responses; pragmatic ignorance, compliance and adaptation. While the objective obviously is to draw attention to the differences between these three types of responses, I also want to underline the underlying commonalities. Despite of the differences, all three responses can be seen to involve compliance at a certain level.

This brings us to the secondary purpose of this article; to introduce how and why the metaphor of choreography and dance provides a fruitful theoretical lens for analysing ICT-enabled work practices. In regard to my case, this metaphor highlights how information systems are meant to prescribe an ordered, sequential structuring of tasks and how, in this way, the systems enable central management to act and exercise control at a distance (Law 1986, Latour 1987: 219). At the same time, the concept underscores how the decisions and actions of front-line staff should be seen as directed- but not determined- or dictated, by the systems. Hence, I will illustrate how the advisors need to relate to and manoeuvre these

prescriptions even though they might be actually 'dancing' to their own rhythm and pace. I will return to how, in my case material, the dancing deviates from the choreography. But I will first account for how the choreography-dance analogy may be used to capture a balanced and dynamic view of the role of ICT in the standardization of service work.

Choreography and Information System Research

In Science and Technology Studies (STS) Cussins (1996) developed the concept of 'ontological choreography' to analyse assisted reproductive technology. The parallels to my study lie in how the notion of choreography is used to describe coordination at micro-levels where technology is a central component. The metaphor appeals to me because it connotes that pace, rhythm and the sequential order of steps is vital, and that it is essential that the movements of individual dancers also match the moves of the other dancers. In aiming to understand the role of information systems in structuring and organising heavy workloads at the local level in NAV, these are exactly the issues at play. And, as mentioned in the introduction, while the choreography certainly affects the moves of the dancers, we will see that there is no guarantee that the dance and the choreography will correspond.

At the same time, I draw on the notion of 'choreography' to emphasis the role of the 'choreographer'. A more commonly used metaphor in practice-based information system research is that of technology–text (Latour 1991; Woolgar 1991; Akrich 1992). Different from the technology-as-text analogy, the notion of choreography indicates to a greater extent that someone is 'pulling the strings'. When comparing technology to texts one assumes that the user has considerable room for interpretative flexibility. It is implied that a text may be interpreted and understood very differently from what the author might have had in mind. Similarly, it is assumed that the users of technology have considerable room to appropriate and use technology in ways that may differ greatly from the designers' and developers' intentions. A choreographer, on the other hand, has the ability to direct and influence practices in action; choreography may involve coordination along the way. By framing the empirical 'stories' of this article with the choreography metaphor, I would like this to be kept in mind. With the text metaphor, the relationship between the user and the designer or developer of an artefact is stressed. With the choreography metaphor, on the other hand, the role of management as intermediary (Woolgar 1991: 92) is brought into focus. From this perspective, then, it is explored how the information system is used by management to act or exercise control at a distance (Law 1986; Latour 1987: 219).

A textual reading of technology, which stresses the interpretive flexibility involved, relates to other influential perspectives in information system research which focuses on how technology is 'enacted'(Orlikowski & Scott 2008) and em-

bedded in 'situated actions' (Suchman 2007). Rolland and Monteiro (2012) elaborate on these insights by bringing attention to how patterns of similarity in technological use also develop across different situated contexts. They propose that the concept of 'trans-situated use' may be useful to capture such patterns. This concept extends the notion of situated use and highlights the need for moving beyond the 'unique' situated singular contexts which has gained more research attention in the past. In the terminology I propose here, Rolland and Monteiro can be seen to develop a vocabulary which captures how similar dances appear in different unique contexts. In this way, they bring attention to how the notion of situated use has gained a strong foothold both empirically and theoretically in information system research. This can be seen to have led to a strong focus on deviating practices, perhaps at the expense of focusing on how and why conformity occurs. I use the notion of choreography and dance in a similar manner to draw attention to how the use of technology departs from but, at the same time, conforms to the expectations of information systems. The best way of explaining what this entails is to look at how it appears empirically. Hence, I commence by outlining the methodological approach of the case study and move on to depict the empirical narrative of this article. The notion of choreography may be kept with us as the 'plotting' of these stories (Czarniawska 1999). I will return to the applicability of the concept as an analytical lens in the discussions at the end of the text.

Context and Methods

The empirical point of departure of this article is the reformation of the Norwegian Employment and Welfare Services. This comprehensive reform started with a merger in 2006, of the formerly separate Employment Services and the National Insurance Services. Parts of the municipal Social Services are also integrated in this reformed organization at the local level. NAV is the Norwegian acronym for this new entity. The NAV reform can be seen as a response to a long-held concern that the welfare services suffer from fragmentation and disintegration. Increased horizontal integration has thus been proposed as a necessary remedy (Hvinden 1994; Ministry of Labour and Social Services 2005; Ministry of Social Services 2004). At the local level, so called one-stop shops (NAV offices) have been set up in each municipality. The empirical stories, sketched out in this article, are mainly based on six months of fieldwork in one of these local NAV offices. The fieldwork involved interviews, observation and engagement with employees working as so-called NAV advisors.[1] The data collection was from one department which employed 13 advisors and one department manager. All advisors were interviewed at least once; eight were interviewed twice. Moreover, all department managers and the office manager, five in total, were interviewed. All interviews were semi-structured and recorded.

Furthermore, I participated in and observed various meetings and training sessions held within the department, and I observed daily working routines in detail with the use of 'shadowing' (Czarniawska 2007). Part of the fieldwork also involved testing of the information system, Arena. User manuals used with the system also contributed to important data material in the study, along with various training materials. Prior to this six-month period of fieldwork, I had regular contact with NAV, starting with a preliminary study at the beginning of 2009. Naturally, the analysis is also based on government documents outlining the background and framework for the establishment of NAV.

NAV provides a graphic illustration of the predicaments involved in standardizing work practices by means of ICT. The reform is radical and highly ambitious in its attempts to realize goals of horizontal integration and individualisation of services, combined with goals of efficiency. One of the central objectives of the reform has been to 'enhance client orientation', which largely allude to increased individualisation and tailoring of services. This means that there is need for flexibility and more room for discretion in local-level work practices. At the same time, this flexibility needs to be constrained to ensure that demands for efficiency and legal principles such as equality of treatment are met. I followed a period of transition at the local-level in NAV during which nearly all work processes became ICT enabled. Having followed this transition, I am able to describe concretely processes which I have termed 'standardized flexibility'. At the same time, this articulates the dual role of the information systems as being both an enabler of enhanced flexibility and a controller of the same.

Presenting the Case

The information system under scrutiny in the following is called Arena. I will depict how Arena plays a central part in how work is structured at the local level in NAV. This portrayal brings attention to how the ideal work models, as prescribed through the system, largely parts with local practices. We will see how the advisors relate to this gap through various strategies. What these responses have in common is that they do not blame or target the principles or logic of the system. Rather, the advisors are primarily concerned with how they find the work situation to be problematic. Furthermore, working conditions are seen as possible to be altered in order to eventually match the logic of the system. At the same time, some advisors are pressing for changes in the current way of structuring tasks through Arena, though this is met with resistance due to how local management requires uniformity in local work practices.

Arena as Organizer

Arena is an information system that is meant to serve two main purposes. First, it is presented as a tool developed to support follow-up work. The introduction manual explains: 'Through processes and work steps you are assisted to systematic follow-up of users in NAV. By users we mean persons with and without benefits from the national insurance scheme, and employers.'[2] Second, the system is used to administer the financial aspects of various benefit schemes. This double purpose of the system can be seen to reflect the duality of the advisors' position; they are gatekeepers to benefit schemes and have a helper-role in advising and assisting clients. Crudely put, the advisors are set to handle both 'cash and care' (Hvinden 1994).

My research is centered on how Arena functions as a follow-up tool. I focus, in the following, on how the system is meant to provide support for handling a large quantity of cases and tasks. Hence, it is focused on how Arena is meant to provide support in organizing and structuring follow-up tasks. This means that I am less concerned with how the system plays a part in the actual follow-up and interaction with the clients, and more concerned with how the follow-up tasks are planned, structured and organized.

The Work Bench

The entrance point to Arena is called the 'workbench.' The workbench is central in how local-level employees talk about and administer their tasks and daily work. The advisors refer to the workbench as being either tidy, messy or overflowed. Hence, the status of the Arena bench is largely used as a reference point to indicate to what degree they are coping with their work. One advisor explains, for instance; 'The deadlines and stuff is the most important, keeping track of that – keeping your Arena bench tidy.' Another says: 'I'm in a way not at rest until my bench is clean.'

The workbench lists the daily tasks that need to be taken care of, resembling an electronic calendar. The advisor may choose to display the tasks to be completed within a day, a week or a month. Mostly they choose to display the scheduled week. The tasks on display may be automatically generated by Arena or another system, or they could be manually set and rearranged by the users of the system. Hence, the bench is meant to be used to organize the sequential order of tasks to be completed. Each advisor has his or her own work bench to log onto, and the office as a whole has a workbench which provides an overview of all the Arena-tasks at the office, both those which are planned and those which are overdue.

Arena is organized in various 'work processes'. A work process guides the employee through detailed steps to ensure that every necessary aspect of the process is taken care of in correct order, and can be seen to work as a 'script' (Akrich 1992). Some steps may be voluntary and work as a reminder, others are obligatory

and marked with blue. The blue steps cannot be missed if one is to complete a work process. In certain cases, the steps marked with blue need to be conducted in sequential order. A message pops up in the feedback field if one fails to follow the set order. When a step is completed, it is marked with a green tick. When all obligatory steps are completed, and the final step, 'close task,' is conducted, the task is removed from the list of tasks on the workbench.

The user manual urges the users of the system to keep the lists of tasks on the workbench tidy so that the advisors are able to have a good overview of the tasks for which they are responsible. Keeping the list tidy is said to be necessary in order to make sure that the employees know which tasks to work on at what time, to know which ones that may be finalized and removed from the bench, and which ones ought to be shifted to a co-worker's workbench. In order to make sure the bench is tidy, it is said that it is important to remember to close and hence remove tasks, especially regarding follow-up. This is stressed in the following manner in one of the user manuals:

> NOTICE! It is important that the deadline date for the task correlates to when you actually plan to do the follow-up. If you are not able to meet the deadline you should change the planned date and give a comment in the commentary field.[3]

This is stressed since tasks may be completed in practice but not actually removed from the workbench. Hence, their presence will then disturb the to-do list because they are not 'ticked off'.

The Ideal and the Actual Work Bench

Structuring the workload in this way seemed simple and reasonable when I participated in training and read through the guidelines in the user manual. When the workbench was filled with actual clients' cases and tasks on the other hand, this neat structure suddenly became more complicated. As most advisors felt that the portfolios of clients that they were set to follow-up far exceeded the time they had available, it seemed difficult to stick to such a strict structuring of the tasks. Hence, at the time of my fieldwork, most workbenches seemed to reveal a rather large gap between the neat and tidy structure that the advisors were encouraged to stick to in the user manual, and the far more messy reality they were set to handle in their daily work. In practice, numerous tasks on the bench were overdue and hence at times creating more chaos than support in attempts to structure the work load. Several explained how they were drastically lagging behind the desired system for follow-up, which was meant to be monitored through the lists of tasks on the Arena workbench. One advisor explains, for instance, in an interview in March, week 12:

> We have those lists you know; Arena-tasks. You might have 15-16 that you are to follow-up within one week. And I have been able to take two since Christmas. And that was in week 2. [*I.e. the advisor had been able to handle two follow-up tasks during 12 weeks while the goal was 15 tasks pr week. The advisor can thus be seen*

> *to be 178 tasks behind the schedule*.] I have been able to make two phone calls. The 'must-tasks' has otherwise taken up all of my time. As well as people that get in touch.
>
> *Me: But are you not then also doing follow-up tasks?*
>
> Yes, but it's not systematic. And it might be totally different persons from those we were supposed to follow-up.

When another advisor is asked whether he finds Arena to be supportive in the structuring of follow-up tasks, he explains:

> Yes, but what I'm struggling with is this; that you are supposed to have these tasks on Monday, and these on Tuesday – because you are supposed to be able to monitor it like this day by day. But I cannot do that yet, I don't think anybody else does either. For instance, we might have this chat now, and then we are supposed to have another chat in half a year from now. Then I would set a follow-up date in a half a year. Then when I arrive that morning I will be able to see – now I am going to have follow-up with her again. But I cannot do that yet – I don't think anybody else is either.
>
> *Me: So, what's the problem then? Do other things get in the way?*
>
> No, it's about being able to make it, to be that effective, if that is possible at all. I don't think anyone is able to either, to be to such a degree [*clapping his hands together*] – to not be lagging behind. But I guess we'll just have to be sporty. We'll just have to grit our teeth, or try, it is kind of fun as well.

A third advisor explains how he finds this structuring of follow-up tasks to be stressful:

> For me it was like this, I came back from a week of holiday and things were completely chaotic when I got back. The portfolio was kind of upside down – that was the case. So when I managed to gain some control, and then started to pick up old cases then, well, I have been doing this for years, finally it said stop.
>
> *Me: So what's the solution then?*
>
> Inner peace, [laughing] – big words – to think that this is just a job, adjust one's expectations. I feel better now. It has a lot to do with stress. And I think Arena in this respect can be quite a stressful follow-up tool because a lot of tasks pop up, which is completely unnecessary. And a messy desk gives a messy mind, and I think in this regard that Arena might be creating a lot of stress compared to the *[manual, my comment]* lists we used in Infotrygd *[another internal information system which is gradually being phased out, my comment]*.

Similar concerns are expressed by one of the advisors who sees her own way of coping in contrast to some of her colleagues:

> They drown in PC work, and lots of tasks which just by its mere presence is found stressful. Just by being on the bench they make people stressed. Then they also slip up in meeting with clients. Then they fail to do a good job there as well. And I am thinking that is a violation of the working environment act. The employer is ruining its employees.
>
> I am not so bothered. I'm like Teflon, like non-stick, it glances off. I am able to think like this, ok, I have these tasks laid on me, and then I don't get to do the things I should. But that is not my responsibility. A little unscrupulous. A little Teflon. Sometimes it slips, and then I cry my brave tears and roar. But all in all I am able to

> [*she shudders*] – this is not my problem. It becomes my problem because it lands on my bench. But that is a way of visualizing it. But those who are not able to make a distance, they go under.

These quotes illustrate firstly how the advisors find it hard to adhere to the way in which Arena's workbench prescribes a certain ordering of tasks. All advisors working with work assessment allowance reported such large gaps between how tasks ideally were to be organized through the workbench in Arena, and how their work benches actually looked. As indicated, the advisors related to this in various ways. Some only stated that there was a gap but did not seem to perceive this as an actual tension that created stress. Others considered the system as a reason for why it was hard to cope. The team-leader, however, saw this mismatch and the messy workbenches as a central problem for the team as a whole. She elaborated on this in detail when I asked her whether she found that they were using the information systems to structure their workload or whether they felt that the system was structuring the work:

> Oh no, now you don't know which buttons you are pushing! How much time did you say you have? I have a lot of opinions on this issue both in an ideal world and a practical world and in every possible way. Arena is fundamentally a management tool, which I am fond of. I believe in Arena as a system, and what it is meant for, but it requires tremendous loyalty from the user of the system when it comes to updating deadlines and monitoring the WAA follow-up according to the week numbers. If you are able to lay the fundamental premises right, Arena will be a good management tool. And I aspire to accomplish that, but I meet a lot of resistance in my team because I know the perceptions out there are very different, or at least a lot more nuanced compared to what I believe in. If we fail to meet that loyalty which the system lays out, then it will totally fail as a support-device. Then it's chaos. Tasks are generated and we are drowning in heavy workloads. So that's the two extremes. We have both in this team, and we have those who are in between.
>
> *Me: So is this a matter of competence?*
>
> Both, it's about competence when it comes to how the system thinks and how things relate, what generates what etc. It is that overall picture, and it is that feeling that the total number of tasks is so huge, so when that disappears, then you are not able to grasp that overview. It's an issue with multiple sides, but these are the major challenges that we are struggling with, and which makes it hard for people to relate to it because you get to that point of disempowerment where you are unable to separate the single, concrete task from the huge mass.
>
> *Me: So to gain that overall insight that you are talking about – is that a matter of a maturation process or is this something which may be gained through training?*
>
> If I could, in an ideal world, hermetically close this team from any other activity for two weeks I would have been able to do a lot. Then I could have taken them through the basics, how it works, what is generated from the various tasks if they are not closed, because these tasks are not coming to haunt us as nightmares. They are actually meant to work as reminders: like, hey hold on, this client has done this and this. He has failed to send his employment status form. What are you going to do? You check if the form has come in one day too late, and then you close that reminder. That's what I call daily must-tasks. Because if not or if the client is back to work for instance – then check it out: what did the client report in the previous form? It might have been 3 months and during those three months there might have been one of

> these tasks coming every fortnight, and there are a lot of those. You might end them, then they disappear to you, but they keep popping up again and again until someone deals with it and end the client's case and inactivate it. But if we don't have that understanding of the system, then tasks are just generated.

In line with the reports from the advisors in the team, the team leader recognizes a substantial gap between the unruly workbenches that the advisors try to handle in practice, and the ideal structuring and organization of tasks as prescribed by Arena. She brings forward that the reason why this mismatch occurs is related to an excess of tasks to be undertaken, but more importantly that the advisors lack the necessary overall understanding of how the system works; how various tasks and work processes relate within the system. In her reasoning, partial understanding of how the system works makes it hard to realize the ideal system for the structuring of tasks that Arena is meant to support. Attempting to follow this system half-heartedly is, according to her, not actually an option because it is then likely to create more chaos and distress rather than support. As she says, if this system is to work it requires 'extreme loyalty' from the users. But she argues that this loyalty also relates to competence. She presents a dream scenario in which she would 'hermetically close' the team from any other activity for two weeks in order for the team as a whole to reach that necessary level of insight on how the system works. As this, obviously, was not feasible, she eventually found an alternative way of dealing with the gap between the ideal and the messy arena benches. I will move on to briefly outline this effort followed by descriptions on how the advisors responded to the attempt to minimize the gap. The responses to this renewed attempt to create compliance with the ideal system for structuring tasks articulate further differences in perceptions and ways of dealing with the system.

Dealing with the Gap

During a few calm weeks in the summer, the team-leader managed to 'clean out' the mess on all workbenches as a way of creating a fresh start. This was a renewed attempt to follow the logic of the arena bench in the structuring of follow-up tasks. According to this system, there should be one follow-up task for each client in the portfolio (approximately an average of 200 pr. Advisor). The deadlines for these tasks were set in batches of 15 pr. week, thus the advisors were supposed to handle 15 follow-up tasks pr. week, an average of three pr. day. The actual task could be to schedule a meeting in person or to deal with things over the phone. In cases where the advisor failed to meet the deadline for the 15 scheduled tasks within a particular week, they were to reschedule and hence move the deadline for the task to a suitable forthcoming week. The team leader explains:

> I have cleared out all the noise that has been lying there. I have inactivated more than 100 clients from the lists. Now each advisor has 195-250 follow-up tasks, which are supposed to correspond with the number of clients in the portfolios. Each task is supposed to be called follow-up WAA week number so and so.

After the 'clean-up' and the attempt for a fresh start, I talked to the advisors about how they saw the current situation and the prospects for this system to work in the future. One of the advisors explained;

> It might work since we have tidied up. On my bench 50 to 60 tasks have been removed. But we are not machines. I have 250 clients. If I had 80-100 clients it might have worked, but then I probably wouldn't have needed this kind of system. With the current work situation, we end up with pleasing the system rather than the clients. We are so occupied with that administrative part. We are actually to follow-up clients with these particular needs in regard to practical measures, but that is not what we do. There is a lot of computer work. And now there will be more. This system *[the use of the arena bench to administer follow-up tasks, my comment]* – it feels like a filing cabinet where you tidy up neatly, and the next day someone has been there and made a complete mess. And I am thinking; that is not going to take up my time.

She explains further that the risk of attempting to adhere to this system is that keeping the bench neat and tidy may take up too much time, at the expense of actually dealing with the tasks and interacting with clients. She generally expresses skepticism for following such a rigid system and seems less stressed than her co-workers when the bench is out of order. She explains further:

> Yes, you often sit there and look at it *[the arena bench, my comment]*. But mostly it is up to the person, because this is an endless vicious [*laughing*] no, not vicious, but it is a circle. It never ends. So if you don't accept that, then you are never done. And I don't think that way so I don't get stressed by looking at my work bench. I rather get stressed if I don't have anything to do – that's what's boring. That would be the worst. I don't get stressed by seeing many tasks.

Another advisor is more convinced that this is a reasonable way to organize follow-up work. She is content that she has been given a fresh start after the clean-up, and optimistic in regard to whether the system will work in the time to come:

> This feels really good, to not have things lagging behind, back in time, and a bad conscience. Now we get to handle it. Even though we might have to move stuff which might not be that urgent, this will work well. I feel a bit stressed, and there will be some tough months now, until I can handle this, because I have to finish it in a way. Like this week, I had one day off, and then I had a lot of meetings, and then I get stressed. I have to be done by Friday you know. But I have pulled myself together and I have two tasks left on my bench that I will deal with during the day.
>
> *Me: So then you have been able to do 15 tasks this week?*
>
> Yes
>
> *Me: So do you think this system will work in the time to come?*
>
> I hope so, but I am a little skeptic, or worried because I am to undergo training in sickness benefits at the same time, and I don't know how many dates I will be handling you know. I'm going to run a real tough system here, and I hope it won't crack. But I am going to work after these principles, I am, I do not want to go back. It might not be that much better, but I feel that I am in control. If I feel that I have to deal with the old stuff, and in addition the things ahead, then you don't know where to start. I will have to make some deals and move some tasks, but not seriously far ahead. I try to juggle with a few weeks or so. So it's wonderful. I want to have a go at it at and see whether it is feasible.

Me: What will be the main challenge in realizing this?

It's the meetings, because there are many who want to have meetings. A lot of collaborators and stuff, Psychologists who want to have triangular meetings and stuff you know. But I believe in it, I do. I just have to change my thought processes.

(…)

Because it has almost been like those who have been pushy, they get follow-up. No, thank goodness I say, for this system. I am a control freak. I need control. No, I think this will be good.

Calls for Local Adjustment

Some of the quotes above express both gratitude and optimism towards how the Arena bench may provide support in the structuring and administration of follow-up tasks. This positivity is conveyed in spite of several negative experiences, where this system has tended to create more chaos and distress rather than order. At the same time, other advisors are less enthusiastic and seem more moderately committed to follow this work model. They are concerned that sticking to this rigid structure may lead to a situation where one attempts to keep things tidy just for the sake of it, which in turn may draw attention away from actually carrying out the follow-up tasks. Nevertheless, the advisors did not merely see this as either being a matter of sticking to an unreasonable rigid structure or, alternatively, being submerged by chaos. Some expressed dedication to this way of structuring the workload in principle, but they highlighted shortcomings in the current working of the system. On this basis, they made repeated suggestions for how it could be altered and improved in ways that would make it clearer and more suitable for structuring the follow-up from their point of view.

The advisor, advocating most strongly the need for change in the current system, explains firstly her strong enthusiasm for Arena in general. She finds, however, the current system for the administration of follow-up task on the arena bench to be unsuitable, and has clear suggestions on how the system should be altered:

I have, I think… I'm that kind of person who likes Arena. I have found out that if I meet the person who made Arena, then I have met my twin soul. Because Arena and my head – we work in the same way. I feel that I'm quite alone in that sense. I'm a nerd. And I like these computer programs. I think Arena works really well and I think it keeps getting better (…) But it is just that the number of tasks keep increasing which makes it ever more difficult to do a good enough job in regard to my clients. But when it comes to the technical parts, it keeps getting better. But that's because I like it (…) I think the way in which Arena is arranged is very logical and reasonable. But as I said, that's how it's inside my head. And it makes visible where we slip up in a very reasonable way. If we had been completely up to date and managed all tasks every day, the world had been completely perfect. But as long as we are not, then, well we slip up, but we can't blame Arena for that (…) Arena makes visible the contact we should have had with the clients.

So for some, this visibility may be felt as stressful?

> Yes, well what's stressful for me is that we are not allowed to call the tasks what we want. In the old employment services, we named the tasks according to the measures they were enrolled in. And then, if someone were in vocational training the task would say 'vocational training' (…) there is a huge job for us when they are all called follow-up AAP week number XX.
>
> *Me: Because then you don't know which ones that are in vocational training?*
>
> No, then you have to know all 250 and know what they are enrolled in. How to be able to find that out – when we are not up to date? We used to have all those in education, so then we could pick up 'education' and find out which ones would finish that year and call them in for a talk and then close the case. But now they drown.
>
> *Me: But why is there reluctance to make these changes?*
>
> The reason, as I have understood it, is that some mean that it is easier for new people coming in. This is an argument that I in the first place think is idiotic, because if you are new and you don't know anything, then you adhere to whatever it is that you meet, and I don't understand why we are to take into consideration that we might hire someone new in a half a year and we are therefore not going to have a system which works now. I have been quite explicit on that.
>
> *Me: Yes, I remember you mentioning it in the department meeting…*
>
> Yes, I have been very clear on this from the beginning. And now there are increasingly more of those from old rehab were the tasks were just called 'rehab week xx' who see my argument. So now I am just waiting to turn the managers around, and then we will get this sorted out.
>
> *Me: So you don't see any other reasons than this…*
>
> Yes, well you get a uniform bench, it looks neater. And if we were completely up to date, and had none overdue tasks, and we were able to go into one week at the time and then work our way down according to this, then it would probably be reasonable. But we are not doing that. And then it all falls apart, because then we are not able to catch what's actually critical to catch.
>
> *Me: But can't it be that the tasks are not to be called different things to ensure that…*
>
> It gets messy!
>
> *Me: Is that it? It's not to avoid that some things will be given low priority or something?*
>
> Well no, now no one is given priority! And like, we have to give priority to people in different kind of measures differently. Because if some contracts run out then it's over! We never get that person back in there, for instance in regard to subsidized salaries. Those who are in that system, if the contract expires without us noticing and renewing it, then there's the lock on the door, and the administrative unit is happy to get rid of one more. And then the person ends up with disability pension, with lower income, and it falls apart. And we want even be able to catch up on that that until the employer send us a claim and they fail to receive it *[the reimbursement, my comment]*.

This concern was a topic that was recurrently on the agenda in department meetings and the like in a period stretching over several months. One of the reasons for the reluctance to follow this more specified labeling of follow-up tasks was that all clients were to be followed-up periodically (ideally twice each year) regardless

of what type of activities in which they were enrolled. By labeling the tasks according to the activities they were enrolled in, it was assumed to be a risk that some clients enrolled in certain programs would be ignored. At the same time, as the advisor pressing for change in the labeling of tasks points out, as the current system largely failed to work, they seemed to face a situation where no one was prioritized. The uniform way of naming the follow-up tasks (which only involved a minor alteration of the standard text that the system generated) seemed conceivable with the ideal pace of follow-up, which, however, was found unrealistic throughout the team at the time of my research. Hence, sticking to this uniform model involved, in a way, a continued trust that the ideal could possibly be realized, eventually. A more specified labeling of the tasks based on the measures that the clients were enrolled in could be seen as a compromise to the promise that all clients were to have some type of follow-up twice each year.

Analysis and Discussion

Coping with Discrepancy: Responses and Strategies

Thus far, I have outlined how the advisors as well as the team manager experienced large gaps between the ideal models for structuring work, as prescribed through use of the Arena bench, and the demanding tasks with which they had to deal. As the quotes from the interviews reveal, the advisors perceived, responded to and coped with these gaps differently. I recognised three main categories of responses and coping strategies: pragmatic ignorance, compliance, and adaptation. The categories represent three ways of relating to the mismatch between the system and the local working conditions.

Pragmatic Ignorance

The first type of response and strategy recognizes that the prescribed way of structuring tasks was incompatible with the current work situation, characterized by large portfolios and hence heavy workloads. Implied in this response was the reasoning that aiming to follow the system under these conditions would mean that the system would become a goal in itself. The strategy to cope involved in this case an ability to somewhat ignore that the system was out of hand, and relating pragmatically to the tasks that needed to be taken care of, regardless of how this corresponded to the prescribed structure. This strategy involves a lighter commitment or concern for how the system prescribes a structured ordering of the tasks.

Compliance

The second type of response entailed a way coping which implied more stress. The employees sorting under this category were stressed by the mismatch and were more determined to catch up with the prescribed structure. Hence, they regarded the system as being a resourceful support in principle even though it

seemed to be inadequate with regard to the current work situation. According to this reasoning, the logic of the structuring system was rational and the problems faced were seen to lie in a difficult work situation rather than in the system. Hence, the work situation was seen as intermediate and assumed to be possible to alter to match the logic of the system. This then involved a strategy of aiming to catch up with the prescriptions of the system.

Adaptation

The third perception and strategy entailed recognition that, in principle, the existent way of structuring tasks through the information system was resourceful. It was assumed, however, that minor alterations needed to be made for the system to handle the heavy workloads. The local management met these efforts of adaptation with resistance because they conflicted with the goals of creating uniformity in local routines and work models. Alteration suggested, in a way, a more complex system; the management's perception was subsequently that it would be problematic to implement this as a new uniform model. Hence, multiple individual systems were then expected to develop in the various workbenches, making it harder for managers to get a systematic overview.

Choreography and Dance

We have seen how a relatively strict choreography of local work practices in NAV has been laid down through the information system, Arena. At a certain level, the advisors alluded to this choreography. They found, at the same time, that the speed prescribed was unrealistically high and that it was nearly impossible to keep pace, given the resources they had available. Hence, the choreography was felt to cause distress rather than give guidance. But a more nuanced picture has also been portrayed. The advisors related differently to the strict choreography and how it parted from the actual rhythm and pace at the local level. Three dominant strategies were detected: pragmatic ignorance, compliance and adaptation. The primary purpose was to illustrate and highlight the differences between these three kinds of responses. At the same time, I have underlined a common feature of all three; they do not oppose the principles or logic of the system. Thus, it can be argued that there is an element of compliance rather than resistance in all three kinds of responses. The various responses can be seen as various forms of 'tinkering' (Ciborra 1992; Timmermans & Berg 1997; Mol, Moser, & Pols 2010) rather than resistance. The dance departs from the choreography, but at the same time it recognises and relates to it. In the cases where the choreography is tightened the system can be seen to become more rigid in an attempt to prescribe stricter and more detailed practices. This does not necessarily mean that the local-level employees act according to the prescriptions of the system. On the contrary, from my research it can be assumed that the employees would feel the need to come up with more complex ways of bypassing the system.

Suchman (2007) argues that the programming of interactive computers is based on a fundamental misconception of the relation between plans and situated actions. Suchman observed in detail how her co-workers interacted with a photocopier. This machine was designed with a panel containing an expert help system which was meant to guide the user in how to operate the machine. On the basis of her observations, Suchman analysed shortcomings in the development of so-called artificial intelligence. Basically, her argument is that plans, inscribed in computer programmes do not determine the actions that they project. She argues that, in her case, this was an underlying misconception. This argument does not reject the plan as such, as some critics have asserted (Suchman 2007: 16). Neither does it assume that plans and situated actions are two different kinds of actions, one which is predictable and the other which is spontaneous and random. Still, Suchman brings attention to how there *is* a difference between plans and situated actions, and problems arise in technological development and implementation in cases were this difference is not recognised.

Suchmans' analysis has clear parallels to my study. My case also shows how plans, inscribed in computer programs, differ from the actual situated practices that the plans were meant to guide. In my study, however, I am concerned with how the management uses the information systems as central tools in broader attempts to shape front-line employees work practices. To capture this, I find that the choreography-metaphor is helpful. In my case, the management and the system can be seen to choreograph the front line performances, though the actual dancing might differ. This metaphor brings attention to how the plan is controlled by someone, i.e. management, rather than just inscribed in artifacts as in Suchmans case.

With this conceptualization I also bring attention to the control and disciplining aspects of information systems which have been less focused on information system research. Suchman's 'situated action' can be seen to have gained more attention than the actual role of the 'plans'. This is for instance highlighted by Monteiro and Rolland (2012). They argue that this has created a bias which has led to theoretical inadequacy when it comes to accounting for how common patterns of technological use develop across dispersed geographical settings.They propose the term 'trans-situated use' as a remedy. In a similar vein, I suggest that the notion of choreography is suitable for capturing how information systems play a relatively strong disciplining role in shaping work practices at the local level of public welfare services. This metaphor highlights how dancing, or situated action, may be ad hoc; it is characterized by improvisation but it is not detached from the choreography, or plans. It is stressed that the dancing takes place around plans, with plans being the point of departure, or a meddling co-actor. This approach has parallels with research on standardization processes. It stresses that for standards to work, improvisation is a fundamental and necessary aspect and, in turn, im-

provisation rests on those standards (Timmermans & Berg 1997; Bowker & Star 2000; Ellingsen, Monteiro, & Munkvold 2007).

In this article, I have started to sketch out how and why the metaphor of choreography may provide a fruitful analytical lens for analysing ICT enabled standardization of work. The metaphor is appealing because it accentuates the dynamics involved in the technology-user interface and how time and speed tend to be of crucial importance. This is perhaps especially relevant for public service work, on which this article is empirically based. The metaphor furthermore highlights how information systems play a central part in directing work practices even though the employees might find they own style of dancing and they might stick to their own rhythm and pace. It has been argued that the dancing still departs from the choreography and there is merely a relative distance between these two. By suggesting choreography as a suitable lens for analysing the role of information systems in efforts to standardize work practices, I furthermore provide a way of conceptualizing conformity and the relatively disciplining role of information systems. This has received less attention in practice-based research on information systems. Additional nuances and aspects of the choreography-dance analogy need to be more fully explored elsewhere.

Even though I bring focus to the disciplining role of the information system, and how conformity occurs at a certain level, my case clearly illustrates that there is no one-to-one relationship between the standards prescribed in the information system and actual work practices. The case can be seen to depict a situation in which the user of the system 'standardizes its practices but does not practice the standard' (Brunsson, Rasche, & Seidl 2012: 622). The next interesting and important step in this research would be to discuss the practical implications of the enhanced presence of ICT-enabled standardization of work in public services, and how this interacts with parallel trends aimed at increased individualisation of services. This is unfortunately beyond the scope of this article, but the gaps, depicted here, between the ideals inscribed in the information systems and the actual working conditions highlight how employees continuously need to negotiate with the systems. These insights lay a foundation for discussing implications. I would argue that it is pertinent to further explore the complexity involved in such negotiations which draws attention to various kinds of costs involved in 'standardizing flexibility' through digital information systems.

Concluding Remarks

There has been increased pressure to individualise public services. This rests on the ability of the service provider to offer service schemes which can be adjusted to the clients' individual needs. The main concern is about how the services are to meet the clients' needs rather than the other way around. The latter tends to characterize more standardised schemes and services. More room for discretion and

flexibility at the level of service delivery can be seen to be a prerequisite for increasingly individualised services. Individual adjustment assumes assessment and decisions based on discretion rather than rigid procedures and rules. Public services are, at the same time, bound to follow legal principles and ensure equality of treatment. The development of public services can thus be seen to take the form of 'standardised flexibility'.

This article has drawn attention to the role of digital information systems as a facilitator of standardised flexibility. It highlights how information systems become an enabler *and* a controller of flexibility. With this as a backdrop, I have explored empirically how digital information systems standardise work practices in an organizational context where enhancing room for discretion and hence flexibility has been a central objective. From the empirical case, it was evident that the prescriptions set in the information systems reflect an ideal world which is distant from local realities. The local-level employees thus face gaps between the prescribed ideals of the systems and their actual working conditions. The employees find various ways of coping with these discrepancies; the main purpose of this article has been to identify and describe three kinds of responses to these gaps.

A second purpose has been to suggest a conceptual framework for these processes which accentuates that actual work practices may deviate from the prescriptions of the system, but only to some extent. I have proposed that the metaphor of choreography and dance is fruitful in this respect because it underscores how work practices may depart from the prescriptions of the system while largely relating to it at the same time. Thus, the work practices can be seen to take place within the choreographed frames of the system. This metaphor provides a way of thinking and talking about compliance and the relative disciplining role of information systems. Extending perspectives and conceptualisations on this subject matter is pertinent since practice-based research on information systems has tended to be more occupied with examples of deviation at the expense of compliance. This article makes a contribution in this respect, and it opens up for further exploration of the nature and the mechanisms of the disciplining role of information systems.

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Notes

[1] The title 'advisor' was introduced with the NAV reform and replaced the formerly used 'case worker'. The new title was introduced to stress that the main focus of this position was advising and follow-up work.

[2] User Manual 'Get started with Arena' (Brukerhåndbok 'Kom I gang med Arena') Version 3 2008 page 2 (*my translation)*

[3] User manual Arena for the NAV office version (Brukerhåndbok Arena for NAV-kontoret) Version 2, 2010, p 43 *(my translation*)

References

Akrich, Madeline (1992): 'The De-scription of Technical Objects', Wiebe, E. Bijker & John Law (eds.), *Shaping Technology/Building Society: Studies in Sociotechnical Change*, Cambridge, MA.: MIT Press.

Bowker, Geoffrey. C., & Susan L. Star (2000): *Sorting Things Out: Classification and its Consequences*. Cambridge, MA.: MIT Press.

Brunsson, Nils, Andreas Rasche & David Seidl (2012): 'The Dynamics of Standardization: Three Perspectives on Standards in Organization Studies', *Organization Studies*, 33:5-6, 613-632.

Ciborra, Claudio, U. (1992): 'From Thinking to Tinkering: The Grassroots of Strategic Information Systems', *The Information Society*, 8(4), 297-309.

Cussins, Charis (1996): 'Ontological Choreography: Agency through Objectification in Infertility Clinics', *Social Studies of Science*, 26(3), 575-610.

Czarniawska, Barbara (1999): *Writing Management: Organization Theory as a Literary Genre*, Oxford: Oxford University Press.

—— (2007): *Shadowing and Other Techniques for doing Fieldwork in Modern Societies*, Malmö: Liber.

Dunleavy, Patrick, Helen Margetts, Simon Bastow & Jane Tinkler (2006): 'New Public Management is Dead-long Live Digital-era Governance', *Journal of Public Administration Research & Theory*, 16:3. 467-494.

Ellingsen, Gunnar, Eric Monteiro & Glenn Munkvold (2007): 'Standardization of Work: Co-constructed Practice', *Information Society*, 23:5, 309-326.

Hvinden, Bjørn (1994): *Divided Against Itself: A Study of Integration in Welfare Bureaucracy*, Oslo: Scandinavian University Press.

Kernaghan, Kenneth (2005): 'Moving Towards the Virtual State: Integrating Services and Service Channels for Citizen-centred Delivery", *International Review of Administrative Sciences*, 71:1, 119-131.

Latour, Bruno (1987): *Science in Action: How to Follow Scientists and Engineers through Society*, Milton Keynes: Open University Press.

—— (1991): 'Technology is Society Made Durable', John Law (ed.): *A Sociology of Monsters: Essays on Power, Technology and Domination*, London: Routledge.

Law, John (1986): 'On the Methods of Long-distance Control: Vessels Navigation and the Portuguese route to India", John Law (ed.): *Power, Action and Belief: A New Sociology of Knowledge?*, London: Routledge & Kegan Paul, 234-263.

Ling, Tom (2002): 'Delivering Joinedup Government in the UK: Dimensions, Issues and Problems', *Public Administration*, 80:4, 615-642.

Ministry of Labour and Social Services (2005): *Stortingsproposisjon 46, Ny arbeids og velferdsforvaltning*.

Ministry of Social Services (2004): NOU 2004: 13 *En ny arbeids- og velferdsforvaltning - Om samordning av Aetats, trygdeetatens og sosialtjenestens oppgaver*.

Mol, Annemarie, Ingunn Moser & Jeannette Pols (2010): *Care in Practice: On Tinkering in Clinics, Homes and Farms*, Bielefeld: Transcript Verlag.

Monteiro, Eric & Knut H. Rolland (2012): 'Trans-situated Use of Integrated Information Systems', *European Journal of Information Systems* 20:3.

Orlikowski, Wanda J. & Susan V. Scott (2008): 'Sociomateriality: Challenging the Separation of Technology, Work and Organization', *The Academy of Management Annals*, 2:1, 433-474.

Pollitt, Christopher (2003): 'Joined-up Government: a Survey', *Political Studies Review*, 1:1, 34-49.

Suchman, Lucy. A. (2007): *Human-machine Reconfigurations: Plans and Situated Actions*, Cambridge, MA.: Cambridge University Press.

Timmermans, Stefan & Marc Berg (1997): 'Standardization in Action: Achieving Local Universality through Medical Protocols', *Social Studies of Science*, 27:2, 273-305.

Woolgar, Steve (1991): 'Configuring the User: The Case of Usability Trials', John Law (ed.), *A Sociology of Monsters: Essays on Power, Technology and Domination*, London: Routledge.

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The Right Kind of Feedback: Working through Standardized Tools

By Marte Fanneløb Giskeødegård

Abstract

This article discusses the implications of working through globally integrated computer systems in transnational firms and addresses in particular employees' possibility to give feedback on how these systems are working. The aim is to contribute to the literature on the standardization of IT with a focus on co-production by questioning the apparent neutrality of feedback processes.

The literature focusing on co-production has shed light on the fact that standardized IT systems are not fixed, but rather flexible in the sense that they are continuously developed based on user feedback. However, based on my empirical case, I argue that employees identified the existence of a frame for acceptable criticism. Two different cases of business critical IT systems are presented; these cases share a common consensus among managers and employees that the systems required improvements. However, employees had experiences of providing business critical feedback on functionality that had not been acted upon. Consequently, when evaluating their possibility to provide feedback, this was not just interpreted in the sense of functionality of the system, but also the perceived prestige of the stakeholders of the systems, which in turn had implications for both the relationship between the central organization and employees and the functionality of the systems.

Keywords: Standardization, globalization, transnational companies, globally integrated IT systems, international division of labor, feedback

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Introduction

When designing standardized IT systems intended to be implemented in transnational companies, it is important that this standardized frame functions across different cultural, temporal, and geographical contexts. In order to do so, a number of context-specific details not universally applicable have to be sacrificed. This means that standardization goes far in removing the particularities of a specific context, since standards have to "manage the tension among transforming work practices while simultaneously being grounded in those practices" (Timmermans and Berg 1997: 297-98). Consequently, the designers have to seek a balance in the system between being abstract enough to be transferrable, yet still include sufficiently detailed content to be workable.

From an anthropological standpoint, this tension between abstraction and specification points to an inherent paradox within standardization. Standardization represents a type of knowledge that in its abstract nature "strips away" context while the interaction that standardized products are meant to facilitate simultaneously demands context. The paradox is illustrated by Almklov (2006), who shows how creating objects like standardized prospects was important to make the work of the engineers he studies "talkable" by enabling communication by making different aspects of their task comparable. Yet he argues that it was through experience and practical work that one would gain the knowledge necessary to create and interpret such objects. A major challenge is to communicate this type of knowledge based on practical day-to-day experience back into the models. Different strategies are developed to facilitate the understanding of the relationship between the codified and the codifications, especially what information was emphasized as well as sacrificed to be able to codify and make models (Almklov & Hepsø 2011). Ambivalence arises from the realization that such standardized knowledge is required, yet it will always have a conflicted relationship with the type of situated, contextual knowledge that is just as important.

To achieve the best possible balance between generalizablity that allows transferability across contexts and a level of detail that enables local employees to use the system within their specific context, the company is dependent on feedback from the users. However, change is complicated by the fast-paced economic climate that also makes it difficult to keep the systems up to date. Moreover, as Busch (2011) comments, interoperability further complicates the picture as alterations in one setting can have unintended ramifications for others, resulting in path dependence in terms of the standards used.

This article addresses the dilemmas emerging here through an empirical case from Supply Inc., a Norwegian transnational maritime company providing the merchant fleet with products and services.[1] The article specifically focuses on two cases describing employees' experience of working with globally integrating IT systems and their perceptions of the employees' abi lity to provide feedback. It is

argued that the employees thought there was a frame of acceptable criticism, which had implications for both the relationship between the central organization and employees and the functionality of the systems. Most importantly, it led them to stop reporting bugs, which caused a vicious circle of continuing problems.

As we will see, the literature recognizing the standardization of IT as a process has a tendency to emphasize the co-construction at the expense of focusing on the embedded power relations. Although the point about co-construction is essential, my empirical case shows that the systems' potential for improvement was heavily affected by how the employees perceived their room for feedback. I argue that one has to look at this issue of co-construction in light of a wider debate of standardization and power relations. Scott (1998) illustrates how standardization of practice is also about power, considering that it is a matter of who has the authority to define such standards. A key point in terms of standardized IT systems is that both designers and users of IT software are dependent on each others' actions. Users are dependent on designers to recognize and agree with their assessment of the situation as changes to the formal procedure are ultimately made only if the standardizers see them as necessary. The shoe can also be on the other foot in the sense that the functionality of the system depends on the actions of the user (Latour 1991). If the systems are not used as intended and the users do not enter the information, the systems might end up as empty shells.

In light of the interdependent relationship among the designers, users, and systems, it is important to take a closer empirical look at what type of struggles and negotiations take place when workers try to adapt to the standards central management presents them with. To substantiate the proposed argument, the article starts by situating the topic of discussion within the wider topic of standardization of technology and the importance of a focus on IT in the study of organizations. First, a brief introduction to the company that serves as the empirical case for this article will be beneficial in understanding why this is of interest.

Supply Inc.

Supply Inc. is a significant player in the maritime business and operates in more than 120 countries around the world, either through an established office or through a hired agent operating on their behalf. Supply Inc. is involved in several business areas in the maritime business. Common to their involvement in all of them is that their marketing toward the customer emphasizes the advantages of their globally distributed network. Supply Inc. argues that it offers globally integrated solutions that competing companies operating only locally cannot match.

Supply Inc. delivers services and products to vessels traveling around the world and has a market-driven organizational structure (Dicken 2007). Their customers are moving targets, as it is hard to predict where and when they will need the services of the company. As such, it is crucial to be represented in many ports

to cover their customers' needs. In the end, the company's organizational structure is a result of what locations are important to their customers. The coordination of delivery also requires a great deal of day-to-day cooperation among Supply Inc. employees worldwide. Workers' interactions to coordinate the deliveries are chiefly done through the computer.

This article focuses in particular on the employees' perception of the possibility to provide feedback on how these systems are working. The empirical data are based on 10 months of fieldwork in 2008 and 2009, divided between three of the company's branch offices: Norway, the US (Texas), and Argentina.[2]

Why Focus on Technology in the Analysis of Transnational Interactions?

Opinions about the role technology plays in an organization are highly variable, ranging from those who see it as an unproblematic transfer of ready-made packages to those who have empirically demonstrated the contextual situatednesss of technology use (Ellingsen et al. 2007; Hepsø 2009; Orlikowski 2010). Moreover, its role is often not explicitly addressed and consequently black boxed, as Orlikowski and Scott (2008) found when they reviewed four leading journals on management research, in which 95% of the articles published in the last decade had no such reflection. Considering the emphasis put on technology as a facilitator for the international division of labor and the investments companies make in such tools, this finding is puzzling (Orlikowski & Scott 2008). Harvey (1989) emphasizes how improvement in communication technology has enabled companies to spread activities across borders of time and space while simultaneously retaining some integration. The internet has provided a new global space for action and production (Boas & Kämpf 2007).

A focus on IT systems is moreover important because they play a role in forming employees' perceptions of the wider organization. In transnational companies, interactions among employees take place largely through information technology; many of the involved actors do most of their work situated in front of a computer. They are thus doing "screen work." The screen provides a platform for activities, which according to Knorr Cetina and Brugger (2001, 2002) makes it not only representative but also constitutive of reality. The authors comment that in many cases the screen is acknowledged to increase the reach, scope, and speed of communication, but adds that in their case the screen was not just an entrance port, but also served as an additional platform in the organization for the interface among participants that integrated and reconstructed the organization.

For transnational companies, globally integrated IT systems are essential because they provide a communication platform that enables employees in one location to enter data that their coworkers elsewhere can act upon. As a result, companies invest a significant amount of time and money in developing and implement-

ing such systems. However, the information has to be recognizable to all involved parties for communication to take place. This is ensured by defining a narrow frame of what is allowed to be entered into the system, where actions are controlled through the code embedded in the systems (Aneesh 2009). IT systems consequently control work processes by providing a certain set up for processing information that involves standardization – a phenomenon academic debates identify as an important enabler or forerunner of globalization processes (cf. Eriksen 2008). Bowker and Star (1999/2000), emphasize how creating standards concerns the facilitation of production of objects by defining rules, or a recipe, which further enables standards to transgress a certain context (ibid.: 13-14). As Larsen (2010) has emphasized, standardization concerns the production of equivalents. It is important to stress that, in the current article, the discussion of standards relates to transnational companies and IT. To talk of standards in general is problematic because Busch (2011), among others, has demonstrated that the term is used to describe so many different phenomena. Furthermore, it seems that the definition of standard depends on the subject up for discussion. Establishing standards is vital for companies as it allows them to measure performance, transfer activity from one context to the other, and ensure that work tasks will be done in a similar way regardless of who is performing them. Moreover, I agree with Monteiro and Rolland (2012) that the aim for companies is not to transfer exactly the same uniform solution to their distributed organization, but rather solutions that facilitate integration by being similar enough to allow interaction.

Global Solutions and Local Adjustments

The focus in this article is on employees' ability to change the standardized IT systems by providing feedback on how they work. Consequently, it is also a discussion about to what extent standards in IT can be seen as fixed end products. I have emphasized the difficult balance between generalizablity and details in the process of developing standards. Timmermans and Berg (1997) use the term "local universalities" to capture this tension, saying that universality "…always rests on real-time work, and emerges from localized processes of negotiation and preexisting institutional, infrastructural and material relations […] no longer implying a rupture with the 'local', but transforming and emerging in and through it" (ibid.: 275).

Thus, universality is never universal in terms of the same solution everywhere. For Timmermans and Berg, standardization is a process in which they do not see local adjustments necessarily as a failure of the systems, because some local adjustments are a prerequisite in order for the systems to work. The most important insight here is that one cannot perceive standardized technology as a finished product. It will be altered after it has been launched as it is subjected to the practice of users (ibid.; Rolland & Monteiro 2002; Pollock 2005; Ellingsen et al. 2007;

Pollock et al. 2007; Monteiro & Rolland 2012). Though, there is large difference between the various users influence in the feedback process, which also affects whether or not their feedback will be acted upon. A study of the design of two computer systems meant to work for multiple organizations clearly indicated that the designers were much more open to the feedback from early users of the systems than that of latecomers, when the usage had become more complex (Pollock et al. 2007). Rolland and Monteiro (2002) argue that one has to look at the cost and benefits for the involved parties to achieve a workable balance between universality and the necessary local sensitivity. In their own empirical case, they demonstrate that for employees such costs take the form of having to find creative ways to work around the system to be able to do their job. However, overly extensive workarounds are perceived as threats to management because they undermine central coordination and control. As these authors see it, steps will be taken to adjust the technology to the situation when the cost is seen as too great (in respect to loss of control). This is how the authors see a co-production taking place. Yet Monteiro and Rolland (2012) also show that changes are always tricky because changes in one place may trigger unintended effects in other locations. They describe how modifications in the system are triggered by a need to adjust to local demands from one context, but that this adjustment often produces side effects for another that demands further alternations. In their case study, it led the company to adopt a conservative attitude to upgrades, which had to be coordinated and synchronized from central IT and consequently hurt the local sites' ability to adjust to the demands from their setting.

These articles are primarily concerned with contributing to an understanding of how software packages actually do work across borders, and more specifically the co-production of standardized technology. Workarounds are then understood as an indispensable part of making standards work. Yet, the studies also shed light on the difficult balance by saying that systems will change as these workarounds become too extensive, thereby threatening the employees' ability to do their job or managements' control over work processes. The insight on co-production is essential, but in my opinion one would learn much about how this co-production unfolds by addressing the embedded power relations more seriously, and to pose the question of how neutral such feedback processes are. The co-construction depends on users' ability to provide feedback and convince system developers of its value. Although workarounds are an important part of the functioning of standardized systems, one can easily imagine that not all obstacles that occur are as easy to work around. In such cases, the users need the designers to recognize and agree with their assessment of the situation. As argued in the introduction, changes depend on whether the standardizers see the point in doing alterations. It requires that both parties have the same perception of reality in these matters; such negotiations about the prevailing definition of the situation put issues of hierarchy, status, and other organizational contextual factors on the agenda (Goffman 1959).

Therefore, it is important to take a closer empirical look at what types of struggles and negotiations take place when workers try to adapt to the standards that central management present to them.

Working with Globally Integrated Systems

As previously mentioned, this article focuses mainly on two central computer systems where employees and managers alike agreed that the systems were not working optimally. The two cases will be presented separately, as the key to understanding their significance lies in the wider contextual setting of use.

Feedback Trade-offs

The global character of computer systems used in transnational companies means that not all relevant feedback will necessarily be acted upon. Developing and changing computer systems is expensive, and there will always be a trade-off concerning where one should invest resources to make alterations; the changes have to be relevant for a large part of the organization as well as crucial to their operation. If not, it is probably more economically sound from the company's perspective to let local employees work around the hiccups.

To avoid reducing the discussion to such trade-offs, I have chosen to focus on two specific IT systems where consensus emerged within the company among employees and managers alike that these systems were not working optimally. Furthermore, the systems' functionality at the global level was the focus of concern. Both systems were the main supporting platform for their area of business, which meant that the systems had high priority within the company as errors could have serious implications for the company's business. This central role was fairly new for both systems, although in different ways.[3] In short, considering that central management in both cases openly acknowledged problems with the functionality of the systems, one would assume that user feedback was very welcome. It was also formally requested for most computer programs had feedback channels in them. Before engaging in the discussion of the malfunctioning IT, I have to stress that Supply Inc. employees in general positively emphasized other globally integrated IT systems as one of the company's true strengths. I stress this because it means that employees were not negative toward such systems in general; in addition, it further underscores that the aim here is not to paint a picture of a company with poor communication IT structure. Supply Inc. was rather an example of the opposite.

The consensus on the need to improve the systems makes them especially interesting as a case for understanding the dynamics of the perceived room for feedback. As Appadurai (1996) reminds us, a message will always be contextualized as the receiver will interpret the message presented from his or her position and in

light of his or her own contextual space. A shared understanding of problems is therefore an important premise from which to discuss the perceived space for feedback.

Asys

Asys was the supporting platform for the agency side of the business, which was a service offered whereby customers could hire a representative from Supply Inc. to take care of their business in local ports. As vessels travel to many foreign ports, they hire an agent with local expertise about the demands of that port to arrange all the necessary activities, both big and small, for the vessel. The agent works as a sort of a personal coordinator for the vessel. In one way, this type of business is locally oriented: the customers buy local expertise and their evaluation of the service Supply Inc provides depends very much on the actions of the company representative.

Although Asys in itself was not new, its role had expanded with changed ambitions for the business area it was meant to support. The change is an important backdrop for the coming discussion. In the past, there had not been much cooperation between the geographically dispersed parts of Supply Inc. when it came to agency services. At the time, Supply Inc. was in the process of redefining the business area, emphasizing the potential implied in thinking of themselves as a global network for both themselves and the customer. In a survey conducted by Supply Inc., the customers had according to central management asked for more uniformity in, among other things, reporting. The customers had expressed frustration because they found themselves wasting time looking for information since reporting depended on location. Thus, they wanted more consistency. They also wanted Supply Inc. to make better use of their systems to provide, for example, evaluations about the customers' own operations in which they were involved, including efficiency measurements.

In central management's effort to refocus this business area to be globally oriented, Asys' role shifted to become the "glue" which was meant to help organize this business globally by coordinating the activities worldwide. Thus, naturally the ambitions were high in terms of the role the program should play. Asys was no longer just a reporting mechanism from local ports to headquarters, but was also to be used as a platform for the geographically dispersed parts of the company to exchange information. Some of the information found there was also available for the customers. Thus, Asys was intended to be an important tool both internally and externally, which meant that it was vital for the information it contained to be up-to-date and correct. The program was up and running, but had several shortcomings, which both employees and managers realized. In fact, during my time at the headquarters as well as in Texas, this program and how it was working were recurrent topics of discussion among both employees and managers.

At the headquarters the concern was primarily Asys functionality as a management tool and as a tool for the customers. Management for example wanted to compare targeted activity vs. actual port calls. Such evaluation became tricky because not all employees entered the necessary information, and then the numbers management was meant to compare were not updated. In a department meeting at the headquarters the central agency team discussed the relationship between operations, sales, and systems. They were concerned that despite guidelines for how to use the implemented systems operations did not make full use of them. They mentioned the various ways agents provided disbursement accounts to customers as an example. The Agents were meant to use Asys, but according to the central team the customer, depending on location, sometimes got the information through Asys, sometimes on an Excel sheet and sometimes just copied into an e-mail. Two consequences were that the customers complained they were not receiving the global solutions they had been promised, which again made the sales force reluctant to advertise the agency offer as globally coordinated.

The central management team at the headquarters in Norway was very concerned with how to get the employees to use the program as they intended, and Asys was often on the agenda in their department meetings. In addition, steps were taken to improve the use of the program, such as arranging training sessions. The discussions concerning Asys at the headquarters indicated that the central team was of the opinion that the users throughout the network did not have enough training on using the system and were therefore not making use of the possibilities the system provided.

As part of the centrally initiated campaign, representatives of the team made a series of visits to the organizational network to promote their work. Their mission was also to discuss the challenges the business area was facing with the organizational network. One of these visits to the network took place in Texas, where the central team invited the agents to join in on the discussion of the state of the business area. Gathering many of the agents at once said something about the importance of the meeting as these agents were normally out servicing vessels – a more or less 24/7 type of job. Indeed, the agents communicated that they were always working under time pressure. The group of about 7 agents at this office in Texas could in total receive up to 500 e-mails a day, which came at all hours and came in addition to phone calls and actual ship visits. During the meeting, the participants talked mostly about the potential opportunities for the business area, where they were going, as well as the overall challenges concerning a recent change to the company's name.

During the meeting, the discussion concerning the computer program that worked as their base was meagre, although the central manager did comment that it played an important role. The agents mentioned in passing that they had some difficulties with Asys and that they had sent this information to central services, but nothing had been done. However, the role of the computer program and its

problems were not discussed in any detail at the meeting. When they did start a discussion of the problems in Asys, it quickly derailed into how the company needed to train employees to use the system. I was somewhat surprised that the discussions of Asys were so meagre because, by that point, I had spent some time in different arenas in the company and the problems with Asys were a topic that kept resurfacing among employees worldwide.[4]

I was later able to spend some time with some of the agents in Texas to learn more about their activities. Their work varied greatly depending of what vessel they were servicing, and most of their work took place communicating by telephone or e-mail. The agents worked in teams, in which one vessel manager handled everything that had to do with Asys. When a vessel was coming to port he registered the vessel and the estimated cost for the services it wanted done in Asys. This generated an e-mail that he forwarded to the vessel with pre-arrival information, including information about the port the vessel was arriving at. In the agents' work, it was clear that they continually experienced various problems with Asys. Many of the problems had to do with formatting. Like when the agent was to send the information he had entered into Asys to the customer something happened with the format of the text. As the information was exported from Asys to an e-mail, the text, that looked neatly organized in Asys, appeared as a chaotic mess. The agent then had to spend time organizing the text in the e-mail so it was readable for the customer. It was not all that time-consuming, but in their hectic workday, it was a source of irritation that – together with other such small issues they had to work around – became a time-consuming activity. One of the agents, Ben, said Asys had its pro's and con's. He found Asys to be fine from a financial point of view, but operationally it worked poorly. He also admitted that the work with Asys became to some extent "noise" since they had to attend to so many e-mails and telephone calls.

It should be mentioned that such practical issues were not only addressed in Texas. For example, at a training session on Asys at the headquarters, the agents attending this course also raised a number of similar practical issues. It concerned among other things how various customer wanted different type of information included in their reports. Also, customers using Supply Inc for multiple port calls wanted one joint disbursement account for all port calls, which was difficult to handle in Asys at the moment. They also mentioned things like small buttons, and problems with "time outs" in Asys that interrupted their work. Another obstacle was that there was no link in Asys to Outlook, so when they had multiple recipients they had to work around the system or send the e-mail from Asys to their own Outlook account and then forward it. It was said that a system that originally had started out as a tool for operations, had developed into something primarily to meet the needs of the customer; and one of the agents commented that it was problematic because "Asys is meant to work for us, it is not we that are meant to work for Asys".

In Texas, sitting alongside the agents working with Asys, I eventually commented on the ongoing problems to one of them, and his response demonstrated that he was really frustrated with the system as well as the possibilities to get assistance on these problems. He mentioned that several of the agents had sent feedback to central services about different issues, but nothing had been done. I asked why he had not made a bigger issue out of these problems at the meeting a couple of months earlier and if that would not have been the perfect opportunity to get those with influence to put pressure on central services to fix the issue. He responded, "Yes, but they don't want to hear that, so I tell them what they want to hear."

His answer was telling as to how he perceived the meetings and the place for feedback. The purpose of the meeting was for the agents to provide their input, but the agents seemed to think there was a frame for acceptable criticism. Considering the strong focus on redefining the business area, as well as the computer systems' role in this area, it was somewhat puzzling that feedback from the users seemed to fall on deaf – or at least selective – ears when the problems addressed concerned the overall functionality of the system. As the discussion of problems in the meeting illustrates, the response seemed to be that the users were not using the system correctly and needed training. This was most certainly true in some cases, and an important dimension of the issues the company faced concerning the program. However, moving toward a general discussion of the need for training took focus away from addressing the concrete issues concerning functionality. As the example with the e-mail illustrates, agents were using valuable time correcting things that seemingly could be easily fixed. Considering the widespread discussion among company employees worldwide about the malfunctions of the program, it is evident that the problems were not only minor touch-ups, but also concerned larger issues.

Hsys

The other system in question was the supporting platform for HR, which I have called Hsys. Similarly to Asys, the role intended for this program was significant, as illustrated in the relevant HR governance policy, which stated that "Hsys is the only HRM system that should be used for employee information." Another factor that played into its importance was how the program fed information into other company computer systems. This meant that the reliability of these other IT systems depended on whether or not the data coming from Hsys were accurate. Among the computer programs that got data from this one were two self-service programs for managers and employees. Illustrative of the interdependence between the systems, in the managers' self-service program, a manager had access to employee information on the basis of who Hsys said belonged to his or her unit. If this information was incorrect, the manager would not have access to employees' information as they would not be listed as subordinates.

Similar to the case with Asys, the central HR department also recognized that the Hsys system was not working optimally at the time. One example was the registered number of employees in the system as approximately 1,500 employees were missing compared to the financial system. The central HR group had a meeting, during which they discussed this discrepancy between the systems and different scenarios that could explain it. Among the explanations (partly it was a question of who should be counted) they found that not all divisions had been entered, so they realized they had to talk to each and every business area so they could look at the numbers in more detail. During these discussions, it became clear that HR's concern with the inaccuracy related to their ability to retrieve the information they needed from the system. Other types of problems with the system also surfaced, such as how one should relate to reporting, registration, counting, etc., and who should enter what into the system.

In light of the central discussions, one could assume that feedback from the users was necessary and welcome in order to improve the system's functionality. The headquarters were concerned with feedback from users, as it was a topic of discussion in their strategy seminars. However, the participants were also discussing what type of feedback they wanted. It was explicitly stated that, yes, they did want feedback, but feedback that related to the set scope of what the system was meant to do (indicating that not all the feedback received was of that nature). The question then was whether there was an active request for feedback. First, the system, like most other systems, had the possibility to provide feedback as a function. Second, feedback was also mentioned in the training material on Hsys targeting new users. However, this was in the format of a PowerPoint presentation consisting of 37 slides, and the topic of user feedback was mentioned once, as one out of four bullet points on page 23. In other words, it was not really highlighted.

One of the most interesting episodes involving employee feedback took place during a training session on Hsys in Texas. The two-day training session had only two participants: Julia and Anna. Julia was a regional HR manager who was training Anna; Anna was an employee about to take on HR-related tasks in her office. The training took place in a live training environment using a test version of Hsys that allowed them to practice performing HR-related tasks without changing anything in the real system. Considering that the test version was a mirror of the live version, it should include the same functions as the live version.

Part of Julia's job during the training was to "sell" the system to Anna. She described the system and all the possibilities it provided to its users. Julia stressed the importance of keeping the system up to date by demonstrating some of the ways Hsys fed information to other computer systems and explaining some of the ways headquarters used the system (to do headcounts, audits, etc.).

During the two days of training, the women performed routine HR tasks by using the functions of the systems, mainly maintenance and recruitment.[5] Early on, small issues with the functionality of the system started appearing. Some of them

had to do with the setup of the system which complicated processes. One example was that if the position was created in the system before a person was registered in the system, this person could not be employed in that position. HR staff had to find ways to work around such problems, and this particular problem was solved by entering a false, much earlier date of employment in the system, so the person preceded the position in Hsys. Also, when a position in the company became available, it had to be recreated in Hsys, because that particular position was "used" if someone was employed in it, and then one could not use it again.

As the problems of varying degree started appearing Anna got frustrated and said that in her opinion it seemed like the program had a lot of errors, was messy, and was not very logical. They were able to ignore or work around most of these issues, but on day two when they moved on to the recruitment part of the system, the women encountered issues that concerned Hsys's overall functionality on a global scale that prevented them from executing their tasks. One example of the problems emerging was interactive buttons that were not working, so they could not enter certain parts of the system. Another issue concerned practicality, as in the recruitment part of the system there was something wrong with the setup so the image did not fit the screen; as a result, they could not read what was written on the far right on the screen. HR staff therefore had to ask applicants for a paper copy as well, which counteracted the intention of turning recruitment into a "paperless" process. Moreover, while applications from internal candidates ideally came directly through the company's Employment Self Service program to Hsys, external applicant did not. So, the HR staff had to have two parallel processes running.

The problems culminated when it turned out that there was a glitch in the programming as there was a link between the real and the test version. At this point Julia started to panic because it meant that the people they had been moving around for two days could potentially have been moved in the real version of Hsys (after all, a manager in Singapore could be a little surprised to find that he was now a driver in some small port in an African country).

Julia – who up until then had kept her game face and had tried to downplay any bugs. – became visibly upset and commented that she was frustrated with the system as a whole and that it did not work properly. She further admitted that there were parts of the system they just did not use in their HR processes because there were so many issues. She said she had given feedback to central services and nothing had been done. When Julia realized there was a link, she corrected what she could of the changes they had done and sent an e-mail to central services to inform them of what had happened. In this e-mail, she also listed some of the problems that had appeared during the two days. What was interesting was that, in typing this e-mail, she was very concerned with the wording and the type of issues she included in the e-mail. She commented that they had to be careful about what type of issue they addressed and how they addressed them. Based on how she

discussed the program, she seemed to be under the impression that the headquarters had stakes in this system and recognized an element of prestige attached to it. She seemed to think that the central organization in Supply Inc. had played a role in designing the system or tailoring it to the specific needs of their company. Her previous experience with giving feedback as well as her opinion of the headquarters' stakes in the program seemed to lead her to the conclusion that critical feedback was not necessarily welcome.

It is interesting that, in the case of both of these systems, there seemed to be a general consensus throughout Supply Inc. that the programs were not working optimally. Even so, there seemed to be a tone of communication where the employees had an understanding of what type of feedback the headquarters really wanted. In both cases, the employees had previously sent e-mails with feedback, yet nothing had happened. In addition, in both cases the issues the employees identified in the programs were of such a nature that they related to important issues in the employees' day-to-day tasks, which one would think would make fixing these frustrating elements a priority.

A question emerging is how the central headquarters thought about the value of feedback. To my knowledge, all computer programs had functions where employees could give feedback directly. Although it would have been highly beneficial to have more knowledge on how incoming issues were handled at the headquarters, the most important element in this discussion is not what actually happened, but the consequences of the users' perceptions of the sequence of events.[6] Despite the seemingly open channel for feedback, the employees' experiences told them otherwise. How can this be? In order to understand this, it is useful to look at another arena where employees were facing difficulties using the system provided.

It's not Me, it's You…

One illustrative example was an episode with some portable computers the workers at the warehouse in Texas brought with them aboard vessels. These were meant to make their job easier and more efficient as they could access and enter data while they were working, instead of waiting until they got back to the office. However, a manager fairly high in the hierarchy in Texas told me that the employees using them reported that they experienced several problems. One of the issues was that the computers were incredibly slow at downloading the data – so slow employees could be stuck at a vessel for a long time waiting for the computer to get ready. Thus, from the employees' (and the local manager's) perspective, the computers did not make them more efficient; rather, it was the reverse situation. I asked the manager why they did not tell the headquarters about this. I was told there was no point. Basically, their experience was that feedback backfired and was determined to be a lack of training. He commented sarcastically:

> They always find a guy in Singapore or something that reports there is no problem, so then we are the ones with the problem. It always comes back as a lack of training in the network and not a problem with the system.

This employee therefore seemed to think that coming forward with problems with the tools they were given served nothing but to weaken his own position as he was met with responses referring to a lack of training, which ultimately brought the issue back on him. This attitude seemed to be widespread among the employees. In respect to how central management argued that some countries reported no problems, it might be valuable to take into consideration different cultural traditions and how this affects codes of communication. Eckhart (2004) comments that scholars doing business research in China have to be aware of how elements in Chinese society have implications for how the Chinese view hierarchy and, consequently, their reluctance to say something that will reflect negatively on their managers, even in situations where the answers are anonymous. She says Chinese answering questions will be preoccupied with how someone in their place in the hierarchy is expected to answer. Although one should not stereotype groups into one specific response, it is a useful reminder that different cultural codes of communication can translate into different ways of responding. In fact, the reluctance from Asian employees to say no was a topic up for discussion on several occasions in the marketing department at the headquarters. If the company is aware of such differences, it becomes even clearer how the response from headquarters is a way of not really taking into consideration the employees' comments.

After the end of my fieldwork, I went back to the headquarters for a visit, where I made a short presentation on some of the issues I had found interesting during my time in their organization. Here I discussed the topic addressed by the American manager and included examples of situations where it was evident that there were real issues with the system. I then continued to explain that the employees felt their concerns and feedback were turned back on them instead of the company hearing their arguments. At that point, one of the vice presidents raised his hand and asked me if I had the impression that employees who had been told that they lacked training had taken a step back to evaluate if they really had done the necessary training. His question further emphasized the attitude the employees had expressed as he immediately turned the question back onto the employees.[7] Even if in many cases it did come back to training, the examples in this article demonstrate that this was not always the case. His response therefore became illustrative of what the employees were expressing.

Contingent Interactional Spaces?

At first, it seems quite puzzling that feedback is not acted upon when employees and managers alike apparently agree that the programs are not working as intended and that it is necessary to make improvements to optimize the functionality. To understand why the employees found a frame of acceptable criticism, it is necessary to take a closer look at the power relations at play in this relationship.

To understand the power relationship, one cannot just discuss employees versus central management. The examples presented herein demonstrate how the technology is working as what Latour (1991) would call a non-human actant as the technology is in part producing the work context in which the employees are operating. The computer systems and the technological infrastructure in general are part of the "missing masses" in the organization (Latour 1992). As Aneesh (2009) pointed out, the algorithmic code in these systems structures work processes by limiting the choices of how to implement data, consequently limiting employees' options of how to perform their tasks. It does not just control work; part of the work is also delegated to these systems. The information stored there keeps track of stock, remembers previous encounters, and allows employees other than the one initially implementing the data to act on the information. Much of the organizational activity is dependent on the correctness of the various IT systems. This means that power is not just in the hands of management. As Latour (1991) says, the fate of technology is in the hands of the user.

It is useful to take a relational approach to the issue of power. Foucault is influential here as he shifted the focus perspective on power from focusing on who has it to how it works: "those practices, techniques and procedures that give it effect" (Townley 1993: 520). Foucault's (1975/1994) discussion of discipline is a reminder of the "hands off" strategy for control that lies in IT structures. In addition to the concrete ways of controlling how work tasks are performed, the potential for surveillance also functions as a self-disciplining element to workers' actions.

Most important to this discussion is the fact that these systems are a manifestation of the headquarters' strategic investment in a particular work tool. Bowker and Star (1999/2000) comment that "…in many ways software is frozen organizational and policy discourse" (ibid.: 135). Their quote is a useful reminder that implied in these systems are decisions on how work should be done, who should perform what and so forth. As was clear in the employees' discussion about the programs, the enormous investment in terms of time as well as money that comes with introducing IT systems was not lost on them. The non-working computer systems seemed to put issues of hierarchy and status on the agenda, emphasizing the differences between the strategic and the operational world of the company. I earlier stated that an important premise for the empirical cases presented in this article was that employees and managers shared an understanding that problems

existed. The empirical examples modify this statement. While it is true that employees and managers agreed that there were problems, they did not have the same outlook on what these problems were. They discussed them at different "levels" and thus were looking to get different things out of the systems. In the case of Asys, the headquarters' focus was global, the most pressing issue was getting people to enter in the necessary data so they could act on it globally; for example to use it as a base for statistics. For the agents, however, although they too saw the advantage of the data Asys provided, their concern was how these data could be used in a time-efficient way in their communications with customers. While the agents recognized the value of the systems from a financial perspective, they found shortcomings in respect to operations that in some way turned the system into "noise" rather than a tool in their work. The same was true of Hsys, where the central HR group's main concern was that the employees kept the information in the system updated, so they could use it to extract data about the organization. However, locally HR had to make this system work in a way that made their HR work processes more efficient. Many of the workarounds the local HR staff had to do did not mean the system lacked information, but that their processes had more steps than necessary. It was clear that this difference between management and employees focus of what the system was for was apparent to the employees.

Employees were not indifferent to whether the various problems they encountered in their day-to-day tasks were fixed or not. Time and time again, employees in Texas and Argentina were eager to tell me about their issues, and on many occasions they stated explicitly that they hoped I would communicate this information back to headquarters. There are many ways to interpret this, all of which are probably part of the full explanation. One factor has to do with media like e-mail or embedded feedback channels, which do not allow the employees to see how the receiver interprets the message, thereby robbing them of the possibility to adjust/correct the receiver's impression. It brings to mind Appadurai's (1996) notion of "mediascapes," where a central point is that such media messages will always be fractional and mixed. This implies that, as the information presented can never tell the whole story, people are therefore left to interpret the information being received. When telling me about their problems, employees could ensure that I had the contextual knowledge of the local situation that was needed to understand why the problem existed. I became what anthropologists in the 1970s termed a "go-between" working as a "messenger between the parties" (Larsen 2010: 255). Another element is that communicating feedback through e-mail or embedded feedback channel meant that the person making the comment was associated with the problem. As the American manager discussed herein illustrated, this was not necessarily good for anything else than hurting one's own position in the company. If employees were met with comments about the need for more training, there was an implicit message that the employee had not done enough

himself to solve the problem. One could imagine that possibilities to provide anonymous feedback would have changed the situation slightly, although it would still not remove the obstacle concerning the lack of contextual knowledge.

To understand the feedback channels from the employees' perspective, it is interesting to turn the focus back to the discussion of standards and the power to define them. Scott (1998) argues that issues of discipline and power are closely linked to the issue of standards; thus, when looking at the dynamic interaction between a standardized system and actual practice, it is important to keep these factors in mind. Presenting alternatives requires an influential voice, and it seems like the employees were under the impression that they did not have such a position. As Bowker and Star's comment concerning software as frozen discourse point to, the systems represent corporate decision about how work processes should be done, and consequently what information was needed. Even if most employees discussed herein have some sort of managerial position in the regions (apart from the agents), they were still part of an organizational hierarchy. In all the situations mentioned above it is clear that the regional staff were aware of the discussions at the headquarters concerning the programs in question. The employees referred to the money invested in the system, linking it to prestige for the involved party. The employees' interpretation of this therefore seems to be that there is less room for actual critical feedback.

It is evident that feedback is not just feedback; there is a difference in the implications of what is communicated. For a global system, it is one thing to give feedback on dead links, yet comments suggesting that the programs are illogical, messy, or not serving their purpose are clearly much more potent statements that in effect criticize the strategic investment the central organization has made, as well and central management's definition of how work processes should be done. It is evident in the examples here that the employees were acutely aware of this difference. The central organization made a strategic decision to invest in this program and had defined the role it was going to have. As a result, from the employees' perspective, the feedback had to be formulated in such a way that it worked within what they saw as the frame for acceptable criticism.

I have already stated that the main object of this discussion is the employees' perceptions of the room for feedback and that the question why central management did not react as employees might have expected is less important. Nevertheless, I will in conclusion briefly reflect on the apparent paradox that, even if both parties agreed that changes were needed, the employees' experience was that nothing was done. This is worth spending a moment on because the employees did raise a number of issues that were of a more practical nature and related to their ability to complete their tasks efficiently. Why then does the central organization answer employee business critical feedback by turning the problems back on them by referring to training? It seems that employee feedback to some extent became noise rather than valuable input. First, it is important to remember the

operational versus strategic outlook on the abilities of the system, which meant that central management and local employees wanted different things from the system. The understanding of the situation is therefore different depending on organizational position. As they are looking to get different things out of the system, it is possible that this affects the pressure centrally put on IT support (who, I imagine, gets swamped by different requests of varying technical competent nature) to prioritize to fix this at the expense of other issues.

In is likely that, in a hectic work environment, it is easier to turn the finger back on the employee than to do something about it. Fuller (2002) argues how knowledge managers' understanding of knowledge emerges from being situated in an "information explosion," characterized by an overwhelming landscape of information they need to navigate.[8] This is part of the reason why Fuller argues that knowledge management has an instrumental approach to knowledge. One is not interested in all types of feedback, but only the kind that is crucial for business, from their perspective of the organization, that has to be addressed. Considering the tardy process of making changes in IT systems, this instrumentality can be a useful lens for interpreting this topic. Making changes is a slow, costly, and often complicated process that helps explain why feedback (even in regard to essential elements) can be seen as noise by the stakeholders, who are defending a costly investment in a computer program. When a program is implemented, one needs to stick with it. Yet the implementers were not expecting this to be problem free. There was a consensus concerning the troublesome processes of implementing the systems. Supply Inc. had already had one experience where a program that was now seen as a success story almost put them out of business when they were implementing it. In fact, this program was now seen as a major reason for the company's competitive edge. It is clear that no one set out to make sure that the systems would not work. It is probably for the most part a matter of an overwhelming load of information combined with time pressures.

Yet the fact remains that from the company's standpoint there seems to be an essential paradox here in that the company was absolutely dependent on feedback from the network in order to better their systems. The examples here demonstrate that the dynamics of interaction led to a vicious circle in that the employees were afraid to communicate their experiences, leaving headquarters with the same issues of how to get the system to work.

Conclusion

This article has argued that, to understand standardization processes in respect to IT systems, one has to empirically situate the discussion in the everyday experiences of those using the systems. Although the literature on the co-production of standard sheds interesting light on how employees through feedback play a part in changing these standardized structures over time, it is only by seriously address-

ing the organizational power relations that evolve in this co-production that one learns the degree of influence the users actually have.

In my case, it is clear that employees found there to be a frame of acceptable criticism. They did not evaluate whether or not to communicate a certain problem only in light of its impact of the systems' functionality, but also in light of how they thought this feedback would be received by central management who had invested in these systems.

Malfunctions in the system create costly processes as people work around glitches, do not trust them, and do not necessarily communicate local experiences. In particular, the latter poses serious challenges to co-production of standardized solutions. The tension between the level of generalizablity that allows the IT software to transgress borders and the level of specific content that is sufficient enough to fulfill the task it is meant to do partly explain the issue at hand, but also apparently create more problems. When people do not communicate their experiences, the systems are not able to improve this balance.

The problems with the IT systems also play a role in forming employees' opinions about their own positions in the company. In their evaluation of their ability to get through with their comments, it is clear that they interpreted their options in light of their status and hierarchical position within Supply Inc.

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Notes

1 The company, as well as the computer systems described here, has been given fictitious names to hide the identity of the company.

2 This fieldwork took the form of participant observation, where five months were spent at the headquarters in Norway, three months in Texas, and the remaining time in Argentina.

3 The HR system was a fairly new program, while the other system had a "new" role, seeing as the company put much more emphasis on the global organization, which meant the role of the system became more important and also expanded.

4 The employees I met from elsewhere in the network often had a managerial position in the company as the employees flown in to attend different meetings and seminars were employees of a certain position in the company.

5 For example, how to create a person in the system, enter their data, change things (like a person's function), let someone go, use the recruitment part of the system, etc.

[6] This topic of feedback emerged after my fieldwork in Norway, which was an important reason for the lack of focus on central services there.

[7] It has to be added here that the body language of some of the other participants at the meeting seemed to say that they realized that the question underlined what I was saying.

[8] As opposed to the economist that has an understanding anchored in the industrial revolution, where new knowledge led to progress. New knowledge then becomes a value in itself, while for the knowledge managers knowledge is only useful if it can be put into action to better their activities and competitive position. Knowledge for the sake of knowledge might be a potential threat in the knowledge managers' eyes (Fuller 2002).

References

Aneesh, Aneesh (2009): "Global Labor: Algocratic Modes of Organization", *Social Theory* 27:4, 347-370.

Almklov, Petter Grytten (2006): *Kunnskap, Kommunikasjon og Ekspertise: Et antropologisk studium av en tverrfaglig ekspertgruppe i oljeindustrien.* Doktoravhandlinger ved NTNU 2006:241, Department of Social Anthropology, Norwegian University of Science and Technology (NTNU) ISSN 1503-8181.

Almklov, Petter & Vidar Hepsø (2011): "Between and Beyond Data: How Analogue Field Experience Informs the Interpretation of Remote Data Sources in Petroleum Reservoir Geology", *Social Studies of Science*, 41:4, 539-560.

Appadurai, Arjun (1996): *Modernity at Large: Cultural Dimensions of Globalization*, Minneapolis: University of Minnesota Press.

Boes Andreas & Tobias Kämpf. (2007): "The Nexus of Informatisation and Internationalisation: A New Stage in the Internationalisation of Labour", *Work Organization, Labour & Globalisation*., 1:2, 193-208.

Bush, Lawrence (2011): *Standards: Recipes for Reality*, Cambridge MA.: The MIT Press.

Bowker, Geoffrey C. & Susan Leigh Star (1999/2000): *Sorting Things Out: Classification and its Consequences*, Cambridge, MA.: MIT Press

Dicken, Peter (2007): *Global Shift: Mapping the Changing Contours of the World Economy*, London: Sage.

Eckhardt, Giana M. (2004): "The Role of Culture in Conducting Thrustworthy and Credible Qualitative Business Research In China", Rebecca Marschan-Pekkari & Catherine Welch (eds): *Handbok of Qualititative Research Methods for International Business*, Edward Elgar Publishing: Cheltenham.

Ellingsen, Gunner, Eric Monteiro & Glenn Munkvold (2007): "Standardization of Work: Co-constructed Practice", *The Information Society*, 23:5, 309-326.

Eriksen, Thomas Hylland (2008): *Globalisering: åtte nøkkelbegreper*, Oso: Universitetsforlaget

Foucault, Michel (1975/1994): *Discipline and Punish: The Birth of the Prison*, Westminister, MD: Vintage.

Fuller, Steve (2002): *Knowledge Management Foundations*, Boston: Butterwurth-Heinemann.

Goffman, Erving. (1959): "The Presentation of Self in Everyday Life", *Garden City*, N.Y: Doubleday.

Harvey, David (1989): *The Conditions of Postmodernity*, Oxford: Basil Blackwell Ltd.

Hepsø, Vidar. (2009): *Leading Research in Technoscience: Insider Social Science in Socio-technological Change*, Saarbrücken: VDM Verlag Dr. Müller.

Knorr Cetina K. & Urs Brugger (2001): "Transparancy Regimes and Management by Content in Global Organizations: The Case of Institutional Currency Trading", *The Journal of Knowledge Management*, 5:2, 180-194.

—— (2002): "Traders' Engagement with Markets: A Postsocial Relationship", *Theory Culture Society* 19:5/6, 161-184.

Larsen, Tord (2010): "Acts of Entification: The Emergence of Thinghood in Social Life", Nigel Rapport (ed.): *Human Nature as Capacity. Beyond Discourse and Classification*, New York: Berghahn Books.

Latour, Bruno (1991): "Technology is Society Made Durable", John Law (ed.): *A Sociology of Monsters: Essays on Power, Technology and Domination*, London: Routledge.

—— (1992): "Where are the Missing Masses? The Sociology of a Few Mudane Artifacts", Wiebe Bijker & John Law (eds): *Shaping Technology*, Cambridge, MA: MIT Press

Monteiro, Eric & Knut H. Rolland (2012): "Trans-situated Use of Integrated Information Systems", *European Journal of Information Systems*, 20:3.

Orlikowski, Wanda J. (2010): "The Sociomateriality of Organisational Life: Considering Technology in Management Research", *Cambridge Journal of Economics*, 34, 125–141.

Orlikowski, Wanda J. & Susan V. Scott (2008): "10 Sociomateriality: Challenging the Separation of Technology, Work and Organization", *The Academy of Management Annals*, 2:1, 433-474.

Pollock, Neil (2005): "When is a Work-Around?: Conflict and Negotiation in Computer System Development", *Science, Technology and Human Values*, 30:4, 496-514.

Pollock, Neil, Robin Williams & Luciana D'Adderio (2007): "Global Software and its Provenance: Generification Work in the Production of Organizational Software Packages", *Social Studies of Science*, 37, 254-280.

Rolland, Knut H & Eric Monteiro (2002): "Balancing the Local and the Global in Infrastructural Information Systems", *The Information Society*, 18: 87-100.

Scott, James C. (1998): *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*, New Haven: Yale University Press.

Timmermans, Stefan & Marc Berg (1997): "Standardization in Action: Achieving Local Universality through Medical protocols", *Social Studies of Science*, 27, 273- 305.

Townley, Barbera (1993): "Foucault, Power/Knowledge, and Its Relevance for Human Resource Management", *Academy of Management review*, 18:3, 518-545.

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Recreating the Banana Grower: The Role of Private Certification Systems in the Windward Islands Banana Industry

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Abstract

Private standards and certification schemes in agrifood networks tend to be described as neoliberal, suggesting that they share a common understanding of that which they seek to govern and the tools to be used. Although such certification systems do have many features in common, this article argues that much is to be learned by contrasting certification systems with regard to their ideational groundings. Through a historically grounded discussion of the adoption and implementation of two certification systems – GLOBALGAP and Fairtrade – in the Windward Islands banana industry, it is argued that there are important differences with regard to how the systems envision shared key concepts such as accountability, adaptability, professionalism and not least sustainability. These differences permeate the standards as well as their enforcement structures, demonstrating a flexibility in certification as governmental technology which is often overlooked. Moreover, the article explores how the certification systems' governmental rationalities articulate with local understandings of the role of farmers and agriculture in the Windward Islands, arguing that the tension existing between the visions embedded in the systems mirrors a tension within these islands societies. This tension preceded the adoption of the certification systems and continues to influence their implementation today.

Keywords: Certification, private standards, political rationalities, agrifood networks, banana farming, the Windward Islands

Introduction: Certification Systems in the Global Marketplace

Certification systems constitute a governance tool which despite its relative newness has come to have tremendous influence on global commercial activity, not least within international agribusiness. Where the early international standardization movement of the late 19th century was coupled to growth in mechanized production and dominated by engineers, from the late 1970s and onwards systems oriented quality management standards drastically enlarged the scope of that which could be governed through standards (Higgins & Hallström 2007). This development was followed by what Michael Power, writing of Britain in the 1990s dubbed the 'audit explosion', whereby audit technologies, in the quest for 'greater accountability, efficiency and quality' have come to permeate society (1994:1). In the 'audit society' the promulgation of standard systems is far from the sole prerogative of public agencies and national and international standards development organizations such as ISO (Power 1997). These are joined by a host of private standard setters such as businesses, industry consortia, NGOs and multi-stakeholder initiatives.

In agrifood networks standards and certification schemes enable private parties to standardize products, production processes and, by implication, producers.[1] Certification technologies have prospered in the transnational spaces opened by free market ideologies advocating political deregulation. Where international agreements under the WTO restrict the public regulation of trade, such rules do not apply to private parties. Rather, private certification systems are typically construed as depoliticized and value neutral governance tools, their credibility boosted further by techno-scientific discourse (Bain, Ransom & Worosz 2010). Nonetheless, certification technology is employed in the reconfiguring of power relations in agrifood networks, arguably shifting power from the production to the market side of the supply chain (Campbell & Le Heron 2007). Using certification, supermarkets have been able to define parameters for food quality, or rather *qualities*, since the term has been applied to an increasingly long list of product and production process attributes. Standards and associated certification schemes, whether retailer specific or the outcome of industry collaborations, have become the supermarkets' primary supply chain governance tools, and in a globalized business environment supermarkets have emerged as key standard setters in agrifood networks. This supermarket power is not uncontested, however, as social movement organizations (SMOs) and to some degree producer groups have also developed certification systems seeking to influence the manner in which agrifood networks operate. Still, if they are to succeed in moving the retailers, they need to foster and maintain a consumer demand for their certified products which major retailers cannot afford to ignore.

One may distinguish between two main approaches to the use of certification in agrifood networks: certification aimed at product differentiation and certifica-

tion for supply chain management purposes (Henson & Humphrey 2010). In what has been dubbed the 'economy of qualities', certification has allowed sophisticated product differentiation to address the manifold tastes and concerns of a differentiated mass of consumers. Most prominently, certification allows the standardization of products with respect to what information economists call credence attributes, i.e. qualities which remain concealed to the consumer even after the point of consumption (Darby & Karni, 1973). A label on a product, when backed by a credible certification scheme, purportedly renders visible attributes of the product or the production process, which would otherwise have remained hidden. SMOs and others involved in standard setting have used this approach to enable consumers to 'see behind' the product itself. Because certification in this regard is ultimately directed at the consumer, such schemes are referred to as business-to-consumer (B2C) or labelling schemes. Early examples were organic certification initiatives pioneered in the 1970s (Dankers & Liu 2003). In contrast, certifications used for supply chain management typically remain hidden to the consumer and are known in certification jargon as business-to-business (B2B) schemes, their function being to convey information between firms. In many cases they are retailer risk management tools with a significant emphasis on food safety and traceability, sometimes accompanied by social and environmental considerations. Such food safety schemes began to appear in the UK in the 1990s in response to food scares (Henson & Caswell 1999), increased media and NGO scrutiny (Loader & Hobbs 1999) and enhanced food safety legislation (Hobbs & Kerr 1992), which had the supermarket chains fear bad publicity as well as legal liability generated by events in their supply chains.

The simplicity and versatility of certification – the apparent ease with which it transforms a multitude of complex and messy realities into easily digestible pieces of information – has had a tremendous appeal to private regulators who in turn have contributed to a constantly growing market for certification systems. A big part of this market consists of what is often referred to as sustainability standards, which may include both B2C and B2B standards (Riisgaard 2009). The multitude of sometimes rivalling sustainability standards reflects power struggles, differences of emphasis and contesting notions of how sustainability can and should be codified in standards and certification schemes. Being market based and seemingly depoliticised, sustainability certification, like audit technologies more generally, tend to be depicted as essentially neoliberal tools of governance (Higgins & Hallström 2007; Guthman 2008). In terms of governmentality, this would imply that they also share in building on a neoliberal political rationality, i.e. ideas, values, principles and knowledge framing that which is to be governed (Djama, Fouilleux & Vagneron 2011: 189). Critics of sustainability certification have argued that because these initiatives are products of 'thinking inside the neoliberal box' (Guthman 2008), the kind of change they can produce is severely restricted (Fridell 2006). However, an outright dismissal of market based certification on the

grounds of an assumed 'neoliberal nature' may be to gloss over important differences in how certification systems are structured and operate. A more informative approach may be to compare such systems with regard to their ideational groundings.

This article sets out to carry out such a comparison of two certification systems being applied to the same object of governance: the banana industry of the Windward Islands in the Eastern Caribbean. The two systems – GLOBALGAP and Fairtrade – are, due to retailer and consumer demand, de facto mandatory for banana growers on these islands who produce for the UK retail market. While the systems are similar in several respects – both may be included under the rubric of sustainability certification – I argue that they also represent different forms of governmentality which is reflected in the manner that certification is employed as governmental technology. In the following I will begin by presenting the historical background of the Windward Islands banana industry before going on to discus, in chronological order, the adoption and implementation of the two certification systems. The historically grounded discussion seeks to present the systems in some detail in order to highlight what they set out to achieve and how. From that discussion I proceed with a further exploration of what kind of farmer and agricultural sector the schemes explicitly or implicitly seek to create and how well these visions resonate with the banana industry stakeholders. While I believe the discussion has a general validity for the Windward Islands banana industry as a whole, it is informed particularly by the situation in St. Vincent, where I conducted a year of field research from July 2008 to August 2009.

The Windward Islands Banana Industry

When the UK company Geest in the early 1950s agreed to purchase all export grade bananas from the Windward Islands, i.e. St. Vincent and the Grenadines, Dominica, St. Lucia and Grenada, the event marked the beginning of a new era for these small British colonies. The sugar industries, which had once rendered them so attractive to England, had by the end of the 19th century collapsed and economic alternatives were few. Consequently unemployment levels were high and living conditions difficult for the many who had relied on the plantations for an income. Fearing social unrest the colonial administration in St. Vincent followed the recommendations of the 1897 West India Royal Commission and initiated land settlement schemes at the turn of the century (Fraser 1986; John 2006). Through the acquisition of marginal and unproductive estate lands, which were surveyed and sold in small lots, the number of holdings of less than 10 acres grew from 46 in 1896 to 7 459 in 1946. Because lots were commonly subdivided, moreover, more than half of these measured less than one acre (John 2006: 53, 86). The smallholders eagerly embraced the opportunity to grow and export bananas to a guaranteed market in Britain and, as Trouillot (1988) has noted, this was

linked to the comparative suitability of bananas over alternative crops to a peasant mode of production. Geest, on its part, had been encouraged by the British government which gave preferential terms to bananas from its colonial sources. Banana exports grew quickly to become the backbone of the fragile Windward Island economies. Particular note must be made of the 'banana boom' taking place from the mid-1980s to the early 1990s. During those years, more than in any other period, the banana truly lived up to its nickname 'green gold'. Money from banana exports transformed the islands, making new consumption patterns and lifestyles available, even to the poorest. By 1990, banana exports accounted for over 20 percent of the GDP and over 80 percent of total agricultural exports in the three islands of Dominica, St. Lucia and St. Vincent, while almost 37 percent of agricultural land was under banana cultivation (Nurse & Sandiford 1995: 4). From 1992 and onwards, however, in response to the likely erosion of trade preferences in Europe and continued challenges posed by weather events, ecological restraints and high production costs, the industries went into a steady decline which has continued until the present day. In this prolonged decline the boom remains a historical reference point and a constant reminder of the wealth that banana had the potential to bring in.

The Windward Islands banana industry had always had difficulties associated with managing large numbers of growers, many of them ill-equipped and unproductive (Spinelli 1973:189). For this reason Geest had demanded not to deal with individual growers but with Banana Growers' Associations (BGAs) on each island (Reid 2000). The BGAs bought the bananas from the growers, regulated production and provided extension services. From 1958 an umbrella organization, WINBAN, was charged inter alia with negotiating contracts with Geest and with pursuing research and development focused on agronomic practices, postharvest handling and technology transfer (La Gra & Marte 1987:122). This was more or less the setup until the post-boom period of the 1990s when threats to the viability of the Windward Islands banana industry seemed to require drastic changes in the organizational structures as well as growers' practices. The boom period aside, environmental and economic conditions had from the onset left the industry depending not just on preferential access to the UK market, but also on a series of injections of aid from the British government to stay afloat (Grossman 1994). As Grossman points out, these interventions, including the preferential access, were conceived of as temporary measures to allow the industry to get on a competitive footing, but quality issues and low productivity have remained substantial causes of concern throughout much of the industry's life span.

Survival by Certification?

When European integration by the early 1990s seemed to threaten the continuation of trade preferences for Windward Island bananas, growers as well as gov-

ernments began to fear for the future of the industry. A number of consultancy reports commissioned on behalf of the industry by entities such as the Caribbean Development Bank, the EC and the British Overseas Development Administration agreed that the way forward was one of restructuring and rationalization (Lewis 1998). A lax attitude toward growers was identified as the main reason for the industry's difficulties and essential components of the restructuring exercise were therefore held to be the cultivation of a stronger market orientation on the part of the industry as a whole and, critically, the elimination of poorly performing growers. Cargill, for instance, stated that

> the present non-discriminatory approach to grower services, fruit purchasing and market feedback will have to be replaced with one that allows the [BGAs] to consolidate their support to growers who adhere to cultivation practices [and] are dependable suppliers of quality fruit [...] (Cargill Technical Services 1995: 23)

The message was clear: Europe's likely withdrawal of the protection it had offered Windward bananas would force the banana industry to withdraw the protection it had offered its growers. Any kind of direct subsidization or cross-subsidization of unproductive growers would have to cease (Lewis 1998). From a neoliberal point of view such subsidies were counterproductive and dangerous, yet the extensive participation of marginal growers in the industry ensured a wide distribution of wealth and added to highly beneficial multiplier effects (Grossman 2003). Politicians and industry officials were no doubt aware of this, but seemed to accept changes as a necessary evil. In the face of impending trade liberalization the choice was perceived as being between the implementation of a socially disruptive industry reform and an altogether abandonment of the banana industry. One point at which all consultants agreed, however, was that there was no real alternative to bananas in terms of contribution to the economy (Lewis 1998).

One of the first results to come of the restructuring was the replacement in 1994 of WINBAN with a new, private entity, WIBDECO, part owned by the governments and the BGAs.[2] WIBDECO was to focus more on business and less on research than what had been the case with WINBAN. In 1996 the company was able to acquire, in a joint venture with the Ireland-based multinational fruit company Fyffes, Geest's banana division, thereby entering into the marketing and distribution of bananas (Clegg 2002). With a presence in the market place, WIBDECO soon began work to channel more produce away from the wholesale markets and into the better paying but more quality conscious retail sector. The primary means of achieving this was to be the implementation of a farm certification system – The Certified Growers' Programme (CGP) – tailor-made by WIBDECO to develop 'a pool of farmers/farms capable of producing, processing and packaging bananas to meet the specific requirements of the Multiples' (Allardyce 2000: 3).[3] The multiples' concerns were divided between being able to offer premium quality products at competitive prices and being pro-active in the face of

growing public attention to issues such as food safety, environmental health and worker welfare.

In some respects the CGP carried a close resemblance to other farm certification systems developed in the mid-1990s, the standards building on notions of integrated crop management (ICM) and integrated pest management (IPM), prescribing efficient agronomic practices and minimal and responsible use of agrochemicals. Yet, the standard was written very specifically to facilitate the rationalization of the Windward Islands banana industry and as such contained requirements intended to weed out growers seen to lack the prerequisites of viable farm operations. Important minimum requirements sought to disqualify farms with unsuitable terrain, inadequate rainfall or irrigation, a lack of road access and inappropriate packing sheds for fruit processing (Allardyce 2000). Moreover, the CGP contained quality standards for the produce itself and failure to maintain a high and consistent quality score would lead to decertification. Certification was voluntary but only certified growers would be able to sell fruit to the multiples and be rewarded with a price premium. However, the way the certification process was designed led growers to question the scheme's impartiality (Hubbard, Herbert, & de la Touche 2000). Certification officers were WIBDECO employees and could have experienced pressure from the company as well as the governments to 'go easy' on certain growers.

Clissold has noted that the CGP and the attached price premium 'brought into the open the unresolved question of whether the institutions in the banana industry had primarily social or economic objectives' (Clissold 2001: 7). There was great dissatisfaction among a segment of growers that local policies were not designed to counteract the effects of market pressures but to adapt to them. By the late 1990s many found themselves as vulnerable as ever, struggling to break even while being asked to comply with complex requirements. Disputes over the size of the price premium and allegations over supposedly favourable treatment of larger growers increased tension within the grower base and pressure mounted on politicians who worried about alienating an important segment of voters. Significant numbers of growers left the industry, the estimated number of active growers shrinking from 25 000 in 1992 to 9 400 in 2001 (Grossman 2003: 313). While many of these undoubtedly belonged to a category of growers deemed ill suited, some growers believed the price premium did not adequately compensate for additional labour requirements (Allardyce 2000), and consequently those who gave up banana farming may have included growers who would have been able to certify but chose not to. At the same time, a lack of assistance to growers choosing to exit the industry may have dissuaded those with no alternative source of income from doing so (Hubbard, et al. 2000).

In 2000, Bernard Cornibert, CEO of WIBDECO in the UK, described the CGP as having 'faltered because of divisions in the banana industry' and argued that to regain the trust of the supermarkets it was necessary to 'relaunch [the programme]

with more stringent application of the code of practice' (St. Lucia Online 2000). The CGP was never relaunched, but some of its functions would eventually be taken over by GLOBALGAP, a certification system devised by the retailers themselves. Prior to that, however, the Windward Island banana growers had responded to the developments of the 1990s by introducing *another* certification system. Fairtrade, in contrast to the CGP, was heralded as offering new hope to the many growers facing uncertain futures in the face of market liberalization.

Fairtrade

When the first shipment of Fairtrade certified bananas from the Windward Islands became available to British consumers on July 25, 2000 (Liddell 2000), it was an event which could easily be seen as a direct challenge to the objectives of the industry restructuring and the CGP. Indeed, a report from the UK Fairtrade Foundation published shortly after expressed hope that Fairtrade in the Windward Islands would 'embrace many of the smaller and poorer producers who have not been able to participate in the Certified Growers Programme' (Liddell 2000: 17). 'If successful', the report states, 'sales of Fairtrade Windward Island bananas will offer hope to thousands of farmers, make farming worthwhile for thousands more, and eventually encourage back destitute farmers who had long since given up the struggle' (Liddell 2000: 18). How could it be that the Windward Islands banana industry now found itself implementing two certification systems with such apparently contradictory objectives? The short answer is that the two systems were promoted by different actors within the industry. Where the CGP was introduced by WIBDECO, Fairtrade certification came about as a result of the actions of growers looking after their own interest.

The NGO-driven Fairtrade certification system emerged with the objective of reducing poverty and empowering producers in the global South. More specifically the initiative aimed to assist smallholders in collectively lifting themselves out of exploitative and unsustainable trade relationships by creating linkages with concerned importers and consumers in the North. To make it possible for consumers to recognize Fairtrade products these carry a label – the Fairtrade Mark – which is owned, along with the Fairtrade standards, by the Germany-based NGO Fairtrade International[4]. The Fairtrade standards address the trade relationships as well as the production process, reflecting the view that decent terms of trade are a prerequisite for sustainable production. The trade standards therefore require, among other things, that buyers pay producers a minimum price which is to be adjusted at regular intervals so as always to cover the cost of sustainable production. On top of this producers are to receive a Fairtrade premium intended to promote sustainable development. The production standards are to some degree product specific, standards existing today for 15 product ranges as well as composite products, but all address social, socioeconomic, and environmental develop-

ment, as well as labour conditions.[5] A core principle in the Fairtrade standards is that producers should be organized in small producer organizations (SPOs)[6], required to operate in a democratic, transparent, and non-discriminative manner with an overarching aim to 'promote the environmentally-sustainable social and economic development of the organization and its members' (Fairtrade Labelling Organizations International 2009: 6). The Fairtrade standards are directed at the SPO and not the individual grower and consequently the annual Fairtrade audit is an audit of the SPO and not of members' farm operations. While a Fairtrade banana grower is required to comply with restrictions on the use of herbicides and maintain pesticide free buffer zones next to streams and roads, the onus is on the SPO to educate, facilitate and cultivate awareness among its members so that they abide by the rules.

Fairtrade's emphasis on collective action resonates well with the philosophy of the organization which brought the concept of Fairtrade to the Windward Islands. The Windward Islands Farmers' Association (WINFA), was formally launched in 1987 with a secretariat in St. Vincent, as an umbrella body for national farmers' organizations in the four Windward Islands (Rittgers & La Gra 1991). From the beginning, WINFA promoted farmers' democratic participation in development processes and acknowledged the importance of creating linkages and alliances nationally and internationally in order to foster awareness and solidarity and to improve farmers' socio-economic well-being (Rittgers & La Gra 1991: 131). WINFA's international network included Christian Aid and Oxfam in Britain, and these NGOs sponsored and co-ordinated a WINFA fact-finding mission to the UK and Belgium in 1992 to learn more about the likely consequences of European integration. The trip linked WINFA with pioneers of the European fair trade movement, initiating the process which culminated in Fairtrade certification and the export of Fairtrade bananas in 2000.

Still, it had been no easy task for WINFA to convince politicians and industry officials in the Windward Islands to lend their support to the Fairtrade initiative. Renwick Rose, co-ordinator of the '92 delegation and for many years WINFA coordinator, has asserted that the leaders of the St. Vincent Banana Growers' Association (SVBGA) at first would not 'touch Fairtrade with a ten-foot pole' and that the people in WINFA were 'scoffed at as dreamers, out of touch with the realities of the banana industry' (Rose 2009). The conflict was one of ideas as well as of the actors championing them; of governmental and programmatic differences as well as of industry leadership. Already in 1992 WINFA had noted with regret the 'pettiness on the part of officials in the banana industry and Governments, reflected in their unwillingness to cooperate with WINFA, perhaps in thinking that WINFA was stealing the limelight' (WINFA 1993: 12). It is quite possible that WINFA's active role in promoting fair trade was interpreted by some industry officials as the actions of a competitor vying for control. Considering that a degree of paternalism saturated the industry it seems likely that a governance initiative

advocated by growers would be dismissed by industry leaders. These leaders could have feared that WINFA, using Fairtrade, would mobilize growers to challenge their positions of power.[7] Moreover, a number of growers suggested to me during fieldwork that the opposition of certain key figures to Fairtrade was due not so much to Fairtrade ideational content as to their own lack of influence over the scheme. Yet, there was obviously also a clash of ideas and real disagreement as to what was the best path forward for the industry. Fairtrade was offering an alternative to the neoliberal vision of rationalization and for someone subscribing to the view that competitiveness could only be achieved through a leaner industry where responsibility was clearly individualized Fairtrade must definitely have appeared as a step in the wrong direction. The paradox was that Fairtrade made sense from a business point of view as there was a large, untapped market for Fairtrade bananas in the UK. When WIBDECO realized this the BGAs were given no choice but to accept Fairtrade as a new order of business.

From a cautious first shipment of some 1 800 boxes of bananas, the Fairtrade exports grew significantly over the succeeding years in response to increasing demand (Smith 2010; Fairtrade Foundation 2011). By 2009, 90 percent of the bananas exported to the UK were sold on Fairtrade terms, the explicit goal being a total switch. More than 90 percent of the Windward Islands banana farmers, numbering some 3 300, had joined the Fairtrade scheme (Fairtrade Foundation 2010). Fairtrade farmers belong to national Fairtrade organizations (NFTOs) which are recognized as members of WINFA, and WINFA, being the Fairtrade certificate holder, acts as the NFTOs' co-ordinator. Each NFTO is, however, largely autonomous and democratically run by its membership with members organized in local Fairtrade groups which hold meetings on a monthly basis. While Fairtrade exports grew rapidly to constitute a large share of total exports, growers continued to exit the industry and the total exports continued to decline in the new century. In the case of St. Vincent the tonnage exported fell by almost 60 percent between 2000 and 2007 and the number of active growers was reduced to less than one third (Fridell 2011). Arriving in St. Vincent in July 2008 I found that Fairtrade certification, while still controversial and drawing fire in some quarters, had been accepted as indispensible by most in the banana industry, as had the role played by WINFA. Yet, the general consensus was that the industry was in deep crisis and that growers were barely scraping by. The tensions between two partly contradicting visions for the industry persisted, now expressed through the parallel implementation of Fairtrade and GLOBALGAP.

GLOBALGAP

GLOBALGAP, an acronym for Global Good Agricultural Practice, are sets of sector specific pre-farm gate standards emphasising food safety, but also covering areas such as environmental protection, traceability, animal welfare and worker

health and safety. The initiative grew out of coalition of European retailers established in 1997 under the name EUREP (Euro-Retailer Produce Working Group) (GLOBALG.A.P., n.d.). The secretariat is hosted in Germany and the membership is international, but GLOBALGAP is in many ways the offspring of the Assured Produce Scheme (APS), a British domestic farm certification system based on ICM principles (van der Grijp 2007). The APS was designed in the early 1990s with the objective of harmonizing the multiples' various food safety codes for domestic producers. Having achieved this much, the UK multiples quickly identified the need for a similar system holding their foreign suppliers to the same standard and took the initiative to set up EUREP (van der Grijp 2007).

The first EUREP protocol, with a scope covering fruits and vegetables, was ready in 1999 and named EUREPGAP (Möller 1999). The standard was devised as a generic HACCP approach to farming, requiring producers to identify potential risks, plan for their control and identify action to be taken in the event that predefined critical limits are breached. The standard is comprehensive, covering farm activity from the seed stage to the dispatch of the final product (Campbell 2005). Since the introduction of the first protocol, it has been revised three times (in 2004, 2007 and 2010) and with the third edition in 2007 the name of the certification system, as well as the organization responsible for it, was changed to GLOBALGAP, reflecting the initiative's global ambitions and expanding reach.[8] Indeed, GLOBALGAP promotes itself as 'the global partnership for safe and sustainable agriculture' and currently more than 100 000 certificates are awarded in over 100 countries (GLOBALG.A.P. 2010). Over the years a number of scopes and sub-scopes have been added so that GLOBALGAP today offers 'integrated farm assurance' relevant for a wide range of farm enterprises, including livestock and aquaculture. Importantly, GLOBALGAP is a B2B scheme as producers' certification status is only communicated to buyers. This underscores GLOBALGAP's function as a supply chain management tool for maintaining baseline standards, to which other systems, such as Fairtrade, may be added for product differentiation.

A key driver behind the GLOBALGAP venture was the need to harmonize already existing standards. It was believed that having one globally recognized standard for food safety would be beneficial to suppliers as well as retailers, allowing both parties more flexibility. In other words, GLOBALGAP was created to replace other standards such as the CGP or proprietary supermarket codes, or if not to replace them, to function as a benchmark standard against which other standards could be recognized as equivalent (Bain, Deaton & Busch 2005; van der Grijp, Marsden & Cavalcanti 2005). GLOBALGAP offers four different 'certification options'. Under options 1 and 3 individual producers apply for either GLOBALGAP certification or certification through a benchmarked scheme. Options 2 and 4 give the same alternatives to producer groups. Potentially the CGP could have been developed into a benchmarked scheme, but this was considered too time consuming and WIBDECO therefore decided upon option 2 (Sylvester

Vanloo, interview, May 15, 2009). As a producer group WIBDECO accepted responsibility for running a quality management system (QMS) covering all growers included under the scheme. All registered growers are subject to annual inspections while the QMS itself is subject to an annual external audit by an accredited certification body.

The standard consists of three kinds of requirements classified according to their importance. To become certified a grower must comply with all 'major musts' and 95 percent of 'minor musts'. Additionally there are requirements classified as recommendations, with which compliance is not required. A grower failing to pass the inspection must carry out corrective action within a time period not exceeding 28 days, but may, in severe cases, be suspended (GLOBALG.A.P. 2007). While the rigorous focus on scheme integrity and the comprehensiveness of GLOBALGAP clearly differed from the CGP, the core content would have been recognizable to growers familiar with the latter. For instance, the concepts of ICM and IPM were of central importance to the GLOBALGAP standard setters (Möller 1999: 18). About half of the control points deal with pesticides or produce handling. Other important areas are workers' health, safety and welfare, fertiliser use, harvesting practices, propagation materials, site and soil management and irrigation. For each control point, compliance criteria specify how the inspector should verify compliance, requiring different kinds of action on behalf of the grower. Broadly speaking the inspector tests a grower's knowledge by asking questions and asking for demonstrations when possible, but he also assesses the farm, including equipment, protective gear, infrastructure and signage, and documentation presented by the grower. This documentation includes the grower's own records of farm activity, training certificates, various risk assessments, plans and policies, invoices, a farm map and pack shed site plan.

The GLOBALGAP standard is subjected to a regular revision cycle reflecting a commitment to continuous improvement, and my arrival in St. Vincent in July 2008 coincided with the implementation of version 3 of the standard containing several new control points and the reclassification of others. Growers were clearly finding it difficult to comply with the revised standard, and in June 2009, only just over 40 percent of about 1 000 active growers in St. Vincent had been able certify (WINFARM 2009). During this period, various actors in the industry were seeking to assist growers in different ways. Importantly, the extension officers, acting as growers' technical advisors, are charged with educating farmers about the requirements. Moreover, producer group certification allows for the centralization of certain tasks, such the carrying out of generic risk assessments, the provision of materials such as record books and signage, the calibration of scales, the provision of various specifications for infrastructure, and the conducting of training sessions for growers and workers to acquire formal competency in key areas such as pesticides, hygiene and first aid. Some of these tasks are taken care of by WIBDECO, but the BGAs, the NFTOs and to some degree the governments all have responsi-

bilities. The assistance provided clearly relieves the growers of much work. However, since the growers are ultimately held responsible at the time of the inspection their reliance on support also renders them vulnerable if that support should fail to materialize.

It is my impression from interviews and from listening to growers' discussions that many of them felt let down or betrayed by one party or another. The extension officers, working for the SVBGA, were crucial in bringing growers 'up to standard', yet I heard a number of growers complain of being neglected by their officer. This may or may not have been the case but some extension officers certainly had far better reputations than others. From time to time there were also complaints that WIBDECO's team of internal inspectors was understaffed and consequently unable to inspect growers by their recertification deadlines. A cause of concern in the preparation for the 2008 external audit – essentially an audit of the QMS along with farm inspections to cross check a sample of growers – was that growers with irrigated farms had not received the required risk assessment on irrigation water pollution which was to be carried out by the Ministry of Agriculture. This automatically resulted in two minor must non-compliances (both control points elevated from recommendations in version 2). Another minor must non-compliance (also elevated from a recommendation in version 2) was given to several growers for lacking evidence of first aid training, even if no training sessions had been held for them to participate in that year. Other requirements which caused difficulties pertained to infrastructure such as packing sheds, dining areas, and pit toilets. There was some confusion as to what these control points actually entailed and improvements were associated with some expenditure, leaving growers depending on assistance provided by the NFTO. Finally, a constant cause of concern among industry officials and extension officers were growers' shortcomings with regard to record keeping. In order to rectify this, efforts were made to train growers through workshops, yet industry officials argued that the root of the problem was a low level of literacy and growers were therefore encouraged to enlist the help of children or others who could be able to assist. In practice, however, extension officers were often expected to do record keeping along with growers.

Recreating the Vincentian Banana Farmer

The certification systems discussed in the preceding pages represent different approaches to the private governance of agricultural production and trade. Table 1 summarizes the key characteristics of the systems, revealing distinct similarities and differences. The CGP has been included in the table for its historical significance, yet the discussion in the following will centre on GLOBALGAP and Fairtrade, the two systems currently being implemented.

	Standard setter	Products & countries covered	Conformity assessment type	Objectives	Regulated party	Adopting party	Certification addressee
Certified Growers' Programme (discont.)	Export company (WIBDECO)	Bananas in the Windward Islands	Industry internal certification	Rationalization of industry, quality, food safety	Growers	Export company (WIBDECO)	Retailers (B2B)
GLOBALGAP	Industry external (retailer consortium)	Wide range of products globally	3rd party certification (ISO Guide 65 accredited)	Food safety & sustainable production	Growers	Export company (WIBDECO)	Retailers (B2B)
Fairtrade	Industry external (NGO)	Wide range of products from developing countries	3rd party certification (ISO Guide 65 accredited)	Sustainable development for producer	Growers' organization and traders	Farmers' association (WINFA)	Consumer (B2C)

Table 1: Characteristics of certification systems in the Windward Islands banana industry

As 'global', private certification systems designed to be applicable to a wide range of product types, addressing social and environmental aspects of production and relying on certification by purportedly independent and ISO Guide 65 accredited certification bodies, GLOBALGAP and Fairtrade clearly share important features making it possible to speak of them as variations of a neoliberal mode of governance. Yet, in other respects the two systems evidently differ. GLOBLGAP, as a B2B scheme is essentially a supply chain management tool whereas Fairtrade is a B2C scheme and aimed at assisting consumers making shopping choices. GLOBALGAP was designed by commercial actors to address market and consumer concerns whereas Fairtrade originated in civil society and addresses the producers' conditions. Perhaps the most critical difference, however, and one that is easily overlooked, is that GLOBALGAP is aimed at individual growers and seeks to inidvidualize responsibility, whereas Fairtrade is aimed at producer organizations and seeks to collectivize responsibility. For this reason, Vincentian banana growers always think of GLOBALGAP when they speak of becoming certified, whereas Fairtrade is something they see themselves as either 'joining' or not. In the final part of this paper I attempt to build on this formal comparison by comparing the standard systems with regard to what kind of farmer they implicitly or explicitly require. The discussion, which is necessarily quite cursory, is focused around some key qualities that the standards, to a varying degree and manner seem to request, i.e. accountability, adaptability, professionalism and sustainabil-

ity-mindedness. One manner in which the standard systems differ notably is in detailing how such qualities are to be operationalized.

The Accountable Grower

Notions of accountability through audits and inspections are of course central to certification systems in general. The new Chief Executive of Fairtrade International, Harriet Lamb, has e.g. asserted that 'you can trust the FAIRTRADE Mark because we trust no one' (Fairtrade Foundation 2008: 8). The attitude epitomizes how certification's appeal as a governance tool relies on perceptions of scheme integrity among those whom certification addresses. Certification represents a transfer of trust from the parties subject to certification, to a system which holds these parties accountable; 'from operatives to auditors' (Power 1994: 6). Yet, as we have seen there are clear differences in how the Windward Islands banana growers are held accountable by the certification systems discussed. Where the GLOBALGAP standard emphasises each and every grower's responsibility, the Fairtrade standard addresses the collective. The producer organization is held accountable for establishing relationships of reciprocal accountability between itself and its members. In essence, the growers must decide through the organization how they are to be held accountable to it and vice versa. To the extent that Fairtrade requires growers to give account during the annual audit (e.g. through visits to farms and Fairtrade group meetings), the questions asked have the intention of assessing this reciprocal accountability. Arguably GLOBALGAP also requires the producer organization to be held accountable, but this is ultimately to ensure that it acts as an intermediary layer of control over the growers. The producer organization is purely a pragmatic means of making feasible the certification of smallholders. This is a fundamental difference in the rationalities of Fairtrade and GLOBALGAP, reflecting their respective primary concerns of safe food and development.[9]

To my surprise I found that for many Vincentian banana growers, the notion of being held accountable by the Fairtrade group is more difficult to accept than the notion of being held accountable through farm inspections. As has been duly noted in research on Caribbean societies (cf. Wilson 1973; Abrahams 1983), autonomy and individualism are culturally highly valued traits. With a historical point of reference being slavery and the exploitative labour extraction of the plantation sector, land tenure for the emerging peasantry became emblematic of newly won freedom and farming provided an opportunity to be independent and self-made (Grossman 1998). Carla Slocum has noted that in St. Lucia 'growing bananas was a means of achieving autonomy, a flexible work schedule, avoidance of an employer's overseeing, and individual security' (Slocum 2006: 95). Yet, Slocum also makes note of another and co-existing discourse on farming, which complains about the strict control over the grower. Somewhat paradoxically it may be that this second discourse is strengthened through Fairtrade, at least if the reciprocal

accountability emphasised by Fairtrade is experienced as an exercise in social control. The producer organization is after all made up of fellow growers and even if the annual GLOBALGAP inspection is far more rigorous, GLOBALGAP remains a faceless authority through most of the year and possibly feels less intrusive because of that. GLOBALGAP's individualized accountability may resonate better with the larger and more self-reliant producers who were doing well under the CGP and resent the influence of smaller, less efficient or quality conscious growers over the industry. An anecdote illustrates this tension: Several of the larger producers were opposed to Fairtrade from the beginning and never became certified, preferring instead to ply their own business in the regional market. In 2008, some of them established an export company targeting the market in Trinidad. At this company's first general meeting in 2009 there was a good deal of discussion about quality issues which had lost the company a major customer. One grower suggested that the company begin to do spot checks of the produce before shipping. The managing director, however, dismissed this outright and asked rhetorically why an honest grower should ever have to pay for checking another grower's bananas.

The Adaptable Grower

The proliferation of standard systems in international agrifood networks since the 1990s can be understood as attempts by variously situated actors to re-regulate liberalized markets, whether to accommodate increasingly differentiated consumer tastes, or to manage risks (Henson & Humphrey 2010). Standards themselves represent adaptations to changing circumstances. And standards, of course, regardless of their objectives, require others to adapt to them. The issue of adaptability is particularly salient with respect to the impact of certification schemes in the Windward Islands banana industry. As we have seen, the CGP was a tool intended to allow the industry to reconfigure around a core group of progressive growers, i.e. those able to adapt to new and changing realities. The assumption was that some growers had what it took to compete and some not, and that the role of certification was to separate the one kind from the other. This explicit objective of 'weeding out' is not present in GLOBALGAP. However, GLOBALGAP with its myriad of control points and compliance criteria presents an even more formidable demand on farmers' ability to adapt, not least because the standard is continually revised and must be interpreted with an eye to local conditions.[10]

In the section on GLOBALGAP I gave several examples illustrating how banana growers in St. Vincent – and I suspect the situation is similar on the other islands – are far from self-reliant in meeting certification requirements. While the provision of extension services and various kinds of support has been required throughout the history of the banana industry, it is my conviction that GLOBALGAP certification requirements have intensified growers' dependence on others.

The dependence will necessarily be most acute as the introduction of a revised standard forces the industry to accommodate to new or changed requirements. If future revisions are less extensive and growers become familiar with the logic of the standards, the problem may go away. However, with the industry finding itself in a state of crisis and growers lacking confidence in the future, GLOBALGAP's emphasis on continuous improvement is likely to have contributed to the continued exodus of growers.

Exaggerating somewhat, where GLOBLGAP *requires* adaptability, Fairtrade seeks to *facilitate* it. The Fairtrade standard is intended to empower growers, through the building of organizational capacity and economic leverage, so that they are able to collectively tackle challenges and adapt to changing circumstances. Fairtrade can for instance facilitate farmers in complying with other standards, the premium in several cases having been used to facilitate a transition into organic farming (Nelson & Pound 2009). In St. Vincent the NFTO saw it as a priority to assist and encourage farmers in becoming GLOBALGAP certified, as captured by the theme of the its 2009 general assembly: 'Farmers revitalize, become certified, keep banana alive'. The NFTO assisted its members by allocating Fairtrade premium for the provision of materials to build pit toilets and lunch rooms and to improve pack sheds, but perhaps the most important manner in which the organization would facilitate adaptability was by providing channels and arenas for the dissemination and exchange of information.

The Professional Grower

Common assertions among industry officials in the Windward Island banana industry is that the majority of growers are not treating farming as a profession, that they lack business acumen, that they do not make plans or reflect on their business choices, and that they aim for short-term rather than long-term profits. The picture painted is of someone who did not become farmer by choice, but because of tradition or necessity – someone lacking the skills or formal qualifications necessary for other careers. This was the kind of grower that the banana industry traditionally was set up to accommodate for. To ensure that growers reinvested in their farms, a cess was deducted from their payments and had to be retrieved in kind as fertilizer. The arrangement is still in place although in a somewhat modified form and as far as I could tell is not controversial. Clissold (2001: 6) has also noted paternalistic attitudes in the BGAs which in her view have prevented a transformation of growers into 'independent-minded, innovative problem-solvers – the mentality now required for survival in the new era'.

The term 'professionalism', as used in lamentations over growers' supposed shortcomings, refers essentially to two separate but inter-linked notions. 'A professional farmer' might suggest someone complying with the professional standards of his occupation, i.e. the farmer-agronomist, but it might also refer to someone with a good grip on farming as an economic enterprise, i.e. the farmer busi-

nessman. The certification systems discussed relate in differing degrees to these distinct notions of professionalism. GLOBALGAP, through the concept of good agricultural practices, commitment to expert knowledge and a technical and systematic approach to production, resonates well with the first view. To the extent that GLOBALGAP is promoted to farmers as having the potential to enhance their business it is as a tool for increasing the efficiency of farm operations or as tool to convince buyers of their professional approach to farming. Fairtrade on the other hand is geared to foster professionalism in the second sense – by seeking to empower producers to make better deals and look for ways to improve their bottom line. While a common criticism of Fairtrade is that the scheme may work to lock farmers in unprofitable productive spheres, advocates of Fairtrade, backed up by impact studies (Nelson & Pound 2009), counter that Fairtrade in many cases enables diversification of income and facilitates business development. This has been attempted in the Windward Islands where WINFA and the NFTOs in 2008 used of the Fairtrade premium to buy an agro-processing plant with the intent of diversifying into the production of jams, jellies and juices and to develop the estate on which the plant is situated for agro-tourism (Rose 2008). Where GLOBALGAP requires certificates from training sessions, Fairtrade requires business plans anchored in collective decision making processes. Marcella Harris, former president of WINFA puts it the following way:

> All around you hear farmers being told to work hard, to be 'businesslike'. A lot of farmers take that to mean that it has to be you alone fighting against the world. I don't agree. Another message farmers everywhere are being given is 'be efficient'. A lot of people interpret that to mean being independent, isolated even, but I don't believe it does. [...] I believe farmers, particularly smaller scale farmers, need to group and do certain things together to get better markets and get what they need so as to improve as producers (Harris 2004)

The Sustainable Grower

Both GLOBALGAP and Fairtrade seek to operationalize sustainable farming and are consequently sometimes referred to as ‘sustainability standards’ (Djama et al. 2011). GLOBALGAP refers prolifically to sustainability in its promotional material and communication to members, claiming for instance to be ‘the world’s most widely accepted standard of food safety and sustainability’ (GLOBALG.A.P. 2012). Fairtrade International meanwhile recently published a position paper entitled ‘Fairtrade’s Contribution to a More Sustainable World’ spelling out the Fairtrade philosophy on sustainable development (2010). Both certification systems lay claim to a holistic approach covering environmental, economic and social dimensions of sustainability but treat each of these dimensions differently.

Fairtrade emphasises the inherently positive contributions of growers as members of farming communities and society at large. In terms of economic sustainability Fairtrade argues that the main responsibility for the marginality of third world producers does not belong with the producers themselves, but with the

market place and consumption patterns. In this view, economic sustainability enables and is a prerequisite for social and environmental sustainability, the argument being that producers in a hand-to-mouth existence cannot reasonably be expected to prioritize longer term objectives. The Fairtrade minimum price and premium is intended to rectify this. Just as central, however, is the idea that collective action, encouraged through the SPO and the premium, contributes positively to social, environmental, *and* economic sustainability. In contrast, GLOBALGAP always construed food safety, environmental protection and worker welfare as interconnected objectives with an ICM approach taken to deliver positive results with respect to each (Möller 1999). Compared with Fairtrade therefore, GLOBALGAP is more specific in its detailed involvement in farm operations. GLOBALGAP's approach to social and environmental sustainability is focused on the farm level, on the conditions of and activities on the production site and the competence of producers. A sustainable farm is understood as a farm adhering to good agricultural practice as defined by experts. To ensure sustainability the system had to be designed in such a way that this practice was rendered auditable, and to make sure that expert knowledge was respected by producers the scheme was devised with a strong emphasis on monitoring and sanctions. In GLOBALGAP's vision of sustainable agriculture, the onus is on the individual grower.

GLOBALGAP differs from Fairtrade in not offering an economic incentive such as a price premium for growers to comply with the standards. It is argued that producers benefit from certification by becoming more attractive to buyers, but in cases such as in the Windward Islands, where certification was made a requirement for *remaining* in the market, that argument rings hollow. The fact is that the multiples that back GLOBALGAP and demand certification of their suppliers are in a position where they do not need to offer economic incentives since the standard has become a de facto market entry requirement. Producers may face considerable investments in bringing farms into compliance, and on top of that comes the economic burden of certification itself (de Battisti, et al. 2009). This additional economic strain, in already difficult times, may impact adversely on Windward Island banana growers' ability to operate in a sustainable fashion. However, I found clear indications that GLOBALGAP had brought with it significant improvements to certain aspects of farm operations in St. Vincent, perhaps most significantly with respect to the handling and storage of pesticides. When I asked growers during interviews if and how they had benefitted from GLOBALGAP certification, they frequently mentioned increased awareness on the use of protective equipment and the value more generally of training sessions on dealing with pesticide use, hygiene and first aid.

As suggested in the discussion of accountability, Fairtrade's emphasis on social solidarity and collective action may not be entirely uncontroversial with growers. In St. Vincent, the NFTO sought through media and meetings to actively disseminate information on the accomplishments of the Fairtrade venture. The impression

created is one of farmers pulling together. Yet, the emphasis on collective action could be difficult to accept for many Vincentian farmers who seemed more interested in how they could personally benefit from Fairtrade than in how they, through Fairtrade could contribute to the common good. Discussions in Fairtrade group meetings revealed that farmers were often hesitant or unwilling to contribute time and labour, whether it was for clean-up campaigns, road improvements or other community projects. When I asked Fairtrade certified farmers if they were contented with the way the social premium had been spent it was frequently argued that more money should find its way back to the farmers, e.g. through subsidies on farm inputs or other kinds of assistance. These sentiments were likely a reflection of the difficulties which continue to face the industry under Fairtrade, yet are interesting in indicating that also Fairtrade farmers can be critical of Fairtrade's social profile

Conclusion

The co-implementation of Fairtrade and GLOBALGAP in the Windward Islands banana industry demonstrates that standards and certification schemes, far from representing a depoliticized governance technology, are political devices and that even when their objectives overlap their rationalities promote different understandings of common concepts. In this case the standard systems addressed a pre-existing tension within the banana industry concerning its fundamental role in society, society's responsibilities toward farmers and farmers' responsibilities toward society. In other words, the standards speak to the issue of the value of farmers and farming, and they constitute packaged technologies whereby the industry and its farmers can recreate themselves.

The CGP sought to recreate the industry around a core of progressive growers who would be competitive and able to deliver what the market required if given the right kind of support. This grower was construed as an atomized subject and along with the farm constituted a self-contained unit. The basic premise was that all those farmer-farm-units, if fitting the bill, would stack up nicely like standardized bricks and make a strong structure, i.e. a competitive industry. GLOBALGAP, as a global standard takes this notion one step further. Its objective is not to transform the Windward Islands banana industry or its farmers, but to transform agriculture on a global scale. GLOBALGAP presents farm-farmer units globally with the same standard, asking them to adapt and paying no heed to local conditions. The techno-scientific rationality at its core, including the valorization of audit technology and individual accountability is promulgated as a consequence of retailers' flexing of market muscle in buyer-driven commodity chains (Gereffi & Korzeniewicz 1994). When the standard addresses producer groups it is only as means to enable the further spread of this recipe for safe and sustainable agriculture to smallholders. In the context of the Windward Islands banana industry

GLOBALGAP picked up where the CGP left off, favouring the same farmers that the CGP attempted to single out. However, this rationality was challenged by the growers themselves who in the face of impending loss of trade preferences turned to Fairtrade. Fairtrade dismisses the notion that the grower should be recreated to stay afloat in a free market. Rather, the Fairtrade standards build on the assumption that sustainable production requires changed consumption patterns and trade relations, and consequently aims to recreate the very value chain. Using certification technology, Fairtrade seeks to do this by connecting producers and consumers through the Fairtrade label. These ideas resonate well with growers in the Windward Islands who have a long history of getting short-changed for their strenuous efforts. However, Fairtrade's emphasis on social commitment and the producer organization as a key driver for development does not sit equally well with all growers. For some of the larger ones it represents a step in the wrong direction, resembling the cross-subsidization practices that the BGAs had been accused of prior to the restructuring.

The fact remains that the Windward Islands banana industry depends on the UK retail markets and that in order to retain those markets a large share of the growers must be *both* GLOBALGAP and Fairtrade certified. Being de facto mandatory for UK market entry the two certification systems have become intricately entangled in the sphere of production. In a number of respects they complement each other, yet the systems also work to reproduce a tension between two visions of farmers and farming. By taking a historical approach to the role of certification in the banana industry I have wanted to show that this tension preceded the certification schemes and informed farmers' perceptions of them. But I have also wanted to demonstrate how the co-implementation of standards has had the unintended effect of sustaining a tension between conflicting ideas on relations between producers and markets, individuals and collectives, and control and empowerment, as well as on key concepts such as accountability, adaptability, professionalism and sustainability.

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Notes

[1] A note on the nomenclature employed in this article: I find it useful to follow Litjens et al. (2011) in distinguishing between standards and schemes, the latter referring to the added layer of rules whereby the former is enforced. Certification represents one set of such enforcement technologies. I refer to the totality of standards and schemes as 'standard systems' and use the term'certification system' to refer to the totality of a standard and a certification scheme.

[2] WIBDECO rebranded itself as Winfresh in 2010 but in the following I will consistently use the old name.

[3] 'Multiples' refers to the supermarket chains, i.e. retailers with multiple stores. By the mid-1990s in the UK, four multiples accounted for more than half of the total food sales. Fifteen multiples, defined as chains with more than ten stores, accounted for nearly two thirds of the total sales area but only one seventh of the total number of stores (Lang 1999: 179).

[4] The name was initially Fairtrade Labelling Organizations International (FLO), reflecting its original membership of national labelling organizations. The membership has since been expanded to include three producer networks and three marketing organizations and in 2011 the name was changed to Fairtrade International.

[5] In late 2009 FLO's standard unit began a process of reviewing the framework of the standards, culminating with the release of a 'revamped' version in May 2011. According to Fairtrade International (2011) the standard was rewritten in a simpler language, restructured, and a new scoring system was introduced with the intent of allowing producers more freedom in choosing how to achieve development. Apart from a strengthening of certain environmental requirements, however, the revision did not substantially change the content of the standards.

[6] Fairtrade standards were first written only for SPOs, but now also exist for hired labour situations for certain product types. This is a controversial issue within the Fairtrade movement, however, with some arguing that the nature of plantations is irreconcilable with the goals of Fairtrade (Equal Exchange 2009).

[7] Such fears may have been bolstered by an outright challenge of industry leadership in St. Lucia where banana growers in 1993 went on a strike led by a group calling itself the Banana Salvation Committee (Slocum 2006; Moberg 2008).

[8] For the sake of convenience I will in the consistently refer to the standards and the scheme as GLOBALGAP.

[9] A dilemma for the Fairtrade standard setters is the extent to which environmental requirements necessitate more formalized accountability from the grower. The line currently taken seems to be that growers, given that they have the necessary knowledge, economic leeway and social encouragement to act in an environmentally friendly manner, will choose to do so. Fairtrade, however, is not promoted as a strict environmental standard and producer groups interested in going beyond the Fairtrade standards in that respect are often encouraged to adopt organic production practices. Organic standards require more formalized producer accountability though the mechanism of an internal control system (Grosch 2000).

[10] It deserves mentioning that several steps have been taken to make GLOBALGAP more smallholder friendly, e.g. by developing illustrated guidelines which explain basic concepts and practices. GLOBALGAP also encourages the establishment of National Technical Working Groups to adapt standards to different national settings.

References

Abrahams, Roger D. (1983): *The Man-of-Words in the West Indies: Performance and the Emergence of Creole Culture*, Baltimore: Johns Hopkins University Press.

Allardyce, Lynn (2000): *The Impact of the Certified Growers Programme on the Windward Islands*, Report for Banana Link.

Bain, Carmen, B. James Deaton & Lawrence Busch (2005): 'Reshaping the Agri-Food System. The Role of Standards, Standard Makers and Third-Party Certifiers', Vaughan Higgins & Geoffrey Lawrence (eds): *Agricultural Governance: Globalization and the New Politics of Regulation*, London; New York: Routledge, 71-83.

Bain, Carmen, Elizabeth Ransom & Michelle R. Worosz (2010): 'Constructing Credibility: Using Technoscience to Legitimate Strategies in Agrifood Governance', *Journal of Rural Social Sciences*, 25:3, 160-192.

Campbell, Hugh (2005): 'The Rise and Rise of EurepGAP: European (Re)Invention of Colonial Food Relations?', *International Journal of Sociology of Agriculture and Food*, 13:2, 1-19.

Campbell, Hugh & Richard Le Heron (2007): 'Supermarkets, Producers and Audit Technologies: The Constitutive Micro-politics of Food, Legitimacy and Governance', David Burch & Geoffrey Lawrence (eds): *Supermarkets and Agri-food Supply Chains: Transformations in the Production and Consumption of Foods*, Cheltenham: Edward Elgar Publishing, 131-153.

Cargill Technical Services (1995): *Prospects for Restructuring the Windward Islands Banana Industry*, Surrey, UK.

Clegg, Peter (2002): 'From Insiders to Outsiders: Caribbean Banana Interests in the New International Trading Framework', *European Review of Latin American and Caribbean Studies*, 73, 65-81.

Clissold, Gunn Gillian (2001): 'Can the Windward Islands Survive Globalization?', Caribbean Briefing Paper No 4. Washington D.C.: Georgetown University.

Dankers, Cora & Pascal Liu (2003): *Environmental and Social Standards, Certification and Labelling for Cash Crops*, Rome: FAO.

Darby, Michael R., & Edi Karni (1973): 'Free Competition and the Optimal Amount of Fraud', *Journal of Law and Economics*, 16:1, 76-88.

de Battisti, Adeline B., James MacGregor & Andrew Graffham (eds) (2009): *Standard Bearers: Horticultural Exports and Private Standards in Africa*, London: IIED.

Djama, Marcel, Eva Fouilleux & Isabelle Vagneron (2011): 'Standard-Setting, Certifying and Benchmarking: A Governmentality Approach to Sustainability Standards in the Agro-Food Sector', Stefano Ponte, Peter Gibbon & Jacob Vestergaard (eds): *Governing through Standards*, Basingstoke: Palgrave Macmillan, 184-209.

Equal Exchange (2009): 'Equal Exchange Joins Critique of Fair Trade Plantations': http://www.csrwire.com/press_releases/21566-Equal-Exchange-Joins-Critique-of-Fair-Trade-Plantations (Accessed 2009-01-23).

Fairtrade Foundation (2008): *Annual Review 2007/2008*, London: Fairtrade Foundation.

Fairtrade Foundation (2010): *Fairtrade Bananas Case Study. Windward Islands: Dominica*, St. Lucia, and St. Vincent. London: Fairtrade Foundation.

Fairtrade Foundation (2011): 'Sales of Fairtrade certified products in the UK': http://www.fairtrade.org.uk/what_is_fairtrade/facts_and_figures.aspx (accessed 2012-08-01).

Fairtrade International (2010): *Fairtrade's Contribution to a More Sustainable World*, Bonn: Fairtrade International.

Fairtrade International (2011): 'Revamped Standards Support Producer Development': http://www.fairtrade.net/single_view1.html?&cHash=cc8cf3592f906d6ada278c09e9f9d517&tx_ttnews%5Btt_news%5D=204 (accessed 2012-10-15).

Fairtrade Labelling Organizations International (2009): *Generic Fairtrade Standards for Small Producers' Organizations*, Current version: 15.08.2009, Bonn: Fairtrade Labelling Organizations International.

Fraser, Adrian St. Aubyn (1986): *Peasants and Agricultural Labourers in St. Vincent and the Grenadines 1899-1951*, London, Ontario: The University of Western Ontario.

Fridell, Gavin (2006): 'Fair Trade and Neoliberalism: Assessing Emerging Perspectives', *Latin American Perspectives*, 33:6, 8-28.

Fridell, Gavin (2011): 'The Case against Cheap Bananas: Lessons from the EU-Caribbean Banana Agreement', *Critical Sociology*, 37:3, 285-307.

Gereffi, Gary & Miguel Korzeniewicz (1994): *Commodity Chains and Global Capitalism*, Westport, Conn.; London: Praeger.
GLOBALG.A.P. (2007): *General Regulations, Integrated Farm Assurance. Version 3.0-2. PART III: Producer Group Certification*, Cologne: GLOBALG.A.P. c/o FoodPLUS GmbH.
GLOBALG.A.P. (2010): *Annual Report*, Cologne: GLOBALG.A.P. c/o FoodPLUS GmbH.
GLOBALG.A.P. (2012): *GLOBALG.A.P. Annual Report 2011*, Cologne: GLOBALG.A.P. c/o FoodPLUS GmbH.
GLOBALG.A.P. (n.d.): 'History': http://www.globalgap.org/cms/front_content.php?idcat=19 (accessed 2012-10-11).
Grosch, Peter (2000): 'Pathways Towards International Organic Certification', Mark Holderness, Suzanne Sharrock, Emile A. Frison & Moses Kairo (eds): *Organic Banana 2000: Towards an Organic Banana Initiative in the Caribbean*, Montepellier, France: INIBAP, 127-129.
Grossman, Lawrence S. (1994): 'British Aid and Windward Bananas: The Case of St. Vincent and the Grenadines', *Social and Economic Studies*, 43:1, 151-179.
—— (1998): *The Political Ecology of Bananas: Contract Farming, Peasants, and Agrarian Change in the Eastern Caribbean*, Chapel Hill, N.C.: University of North Carolina Press.
—— (2003): 'The St. Vincent Banana Growers' Association, Contract Farming, and the Peasantry', Mark Moberg & Steve Striffler (eds): *Banana Wars: Power, Production, and History in the Americas*, Durham and London: Duke University Press, 286-315.
Guthman, Julie (2008): 'Thinking Inside the Neoliberal Box: The Micro-Politics of Agro-Food Philanthropy', *Geoforum*, 39:3, 1241-1253.
Harris, Marcella (2004): 'Surviving the Banana Crush', *New Agriculturalist*, November.
Henson, Spencer & Julie Caswell (1999): 'Food Safety Regulation: An Overview of Contemporary Issues', *Food Policy*, 24:6, 589-603.
Henson, Spencer & John Humphrey (2010): 'Understanding the Complexities of Private Standards in Global Agri-Food Chains as They Impact Developing Countries', *Journal of Development Studies*, 46:9, 1628-1646.
Higgins, Winton & Kristina Tamm Hallström (2007): 'Standardization, Globalization and Rationalities of Government', *Organization*, 14:5, 685-704.
Hobbs, Jill E. & William A. Kerr (1992): 'Costs of Monitoring Food Safety and Vertical Coordination in Agribusiness: What Can Be Learned from the British Food Safety Act 1990?', *Agribusiness*, 8:6, 575-584.
Hubbard, Michael, Alicia Herbert & Yves Roumain de la Touche (2000): *Country Report on Assistance to Windward Islands with Case Studies of St. Lucia and St. Vincent. Evaluation of EU Assistance to ACP Banana Producers*, Taastrup: Eva-EU Association.
John, Karl (2006): *Land Reform in Small Island Developing States: A Case Study on St. Vincent, West Indies, 1890-2000*, College Station, Texas: Virtualbookworm.com Publishing.
La Gra, Jerry & Rafael Marte (1987): *The Fruit Sub-Sector in the Windward Islands: Diagnosis-Strategy-Actions*, Saint Lucia: IICA.
Lang, Tim (1999): 'The Complexities of Globalization: The UK as a Case Study of Tensions within the Food System and the Challenge to Food Policy', *Agriculture and Human Values*, 16:2, 169-185.
Lewis, Patsy (1998): 'Making a Better Banana Farmer: Restructuring the West Indian Banana Industry', *Caribbean Dialogue: A Policy Bulletin of Caribbean Affairs*, 4:3 & 4, 1-19.
Liddell, Ian (2000): *Unpeeling the Banana Trade*, London: Fairtrade Foundation.
Litjens, Maria, Bernd van der Meulen, & Harry Bremmers (2011): 'The Outside of Private Food Law: The Case of Braided Private Regulation in Dutch Dairy Viewed in the Light of Competition Law', Bernd van der Meulen (ed.): *Private Food Law: Governing Food Chains through Contract Law, Self-Regulation, Private Standards, Audits and Certification Schemes*, Wageningen: Wageningen Academic Publishers, 331-352.
Loader, Rupert & Jill E. Hobbs (1999): 'Strategic Responses to Food Safety Legislation', *Food Policy*, 24:6, 685-706.
Moberg, Mark (2008): *Slipping Away: Banana Politics and Fair Trade in the Eastern Caribbean*, New York: Berghahn.

Möller, Kristian (ed) (1999): *EUREP GAP - Verification 2000*, Cologne: Euro-Retailer Produce Working Group.
Nelson, Valerie & Barry Pound (2009): *The Last Ten Years: A Comprehensive Review of the Literature on the Impact of Fairtrade*, Greenwich: Natural Resources Institute.
Nurse, Keith, & Wayne Sandiford (1995): *Windward Islands Bananas: Challenges and Options under the Single European Market*, Kingston, Jamaica: Friedrich Ebert Stiftung.
Power, Michael (1994): *The Audit Explosion*, London: Demos.
—— (1997): *The Audit Society: Rituals of Verification*, Oxford: Oxford University Press.
Reid, Errol R. (2000): 'Status of Banana Production in the Windward Islands and the Prospects for Organic Banana Production', Mark Holderness, Suzanne Sharrock, Emile A. Frison & Moses Kairo (eds): *Organic Banana 2000: Towards an Organic Banana Initiative in the Caribbean*, Montpellier, France: INIBAP, 41-54.
Riisgaard, Lone (2009): *How the Market for Standards Shapes Competition in the Market for Goods: Sustainability Standards in the Cut Flower Industry*, DIIS Working Paper 2009:07, Copenhagen: Danish Institute for International Studies (DIIS).
Rittgers, Rob & Jerry La Gra (1991): *Prophiles of Farmer Organizations in St Vincent and the Grenadines*, Kingston, St. Vincent & the Grenadines: IICA Office in Saint Vincent and the Grenadines: http://books.google.no/books?id=nvtkAAAAIAAJ (accessed 2012-02-26).
Rose, Renwick (2008): 'Windwards: Fairtrade Farmers Moving Up the Chain', *Banana Trade News Bulletin*, 40, 12-13.
—— (2009): 'A Significant Milestone', *Searchlight*, 20 March 2009: http://searchlight.vc/a-significant-milestone-p21078.htm (accessed 2011-03-20).
St. Lucia Online (2000): 'WIBDECO: Certified Growers Must Target Supermarkets', *St. Lucia Online*, 4 November 2000: http://www.slucia.com/archive/news/old_news_181100.html#2 (accessed 2011-03-21)
Slocum, Karla (2006): *Free Trade & Freedom: Neoliberalism, Place, and Nation in the Caribbean*, Ann Arbor, MI: University of Michigan Press.
Smith, Sally (2010): *Fairtrade Bananas: A Global Assessment of Impact*, Brighton: Institute of Development Studies, University of Sussex.
Spinelli, Joseph (1973): *Land Use and Population in St. Vincent, 1763-1961*, Unpublished PhD dissertation, University of Florida.
Trouillot, Michel-Rolph (1988): *Peasants and Capital: Dominica in the World Economy*, Baltimore, Md.: Johns Hopkins University Press.
van der Grijp, Nicolien M. (2007): 'European Food Industry Initiatives Reducing Pesticide Use', Frank den Hond, Peter Groenewegen & Nico M. van Straalen (eds): *Pesticides: Problems, Improvements, Alternatives*, Oxford: Blackwell Publishing Ltd, 199-220.
van der Grijp, Nicolien M., Terry Marsden & Josepha S. B. Cavalcanti (2005): 'European Retailers as Agents of Change Towards Sustainability: The Case of Fruit Production in Brazil', *Environmental Sciences*, 2:1, 31-46.
Wilson, Peter J. (1973): Crab Antics: *The Social Anthropology of English-Speaking Negro Societies of the Caribbean*, New Haven: Yale University Press.
WINFA (1993): 1992 *Annual Report, Presented to the Annual General Assembly (May 6th - 8th, 1993)*, Kingstown: WINFA.
WINFARM (2009): *Manager's Report for the Month of June 2009*, Kingstown.