New Left Review 92, March-April 2015

FRANCO MORETTI & DOMINIQUE PESTRE

BANKSPEAK

The Language of World Bank Reports

What can quantitative linguistic analysis tell us about the operations and outlook of the international financial institutions? At first glance, the words most frequently used in the World Bank's Annual Reports give an impression of unbroken continuity. [1] Two scholars working in different disciplines don't usually have the opportunity to learn about each other's research, and the mental freedom to imagine a long-term project together. This is however exactly what happened to us, at the Wissenschaftskolleg in Berlin, in the spring of 2013; after which, the researchers of the Stanford Literary Lab helped us turn a vague idea into a series of solid findings. To all those who made this study possible, our heartfelt thanks. Seven are near the top at any given time: three nouns—bank, loan/s, development—and four adjectives: fiscal, economic, financial, private. This septet is joined by a handful of other nouns: ibrd, countries, investment/s, interest, programme/s, project/s, assistance, and—though initially less frequent—lending, growth, cost, debt, trade, prices. There is also a second, more colourless set of adjectives—other, new, such, net, first, more, general—plus agricultural, partly replaced from the 1990s by rural. [2] Our corpus consists of the full text of the World Bank Annual Reports, 1946–2012, excluding the budgets and all financial tables. The word bank as used in the Reports generally refers to the World Bank. The International Bank for Reconstruction and Development (ibrd) was the original World Bank institution, established in 1944 at Bretton Woods; it is now subsumed within the World Bank Group, which includes an agency for private investment, an insurance agency, an arbitration forum and the International Development Association, established in 1960 to offer concessional loans to the poorest countries. For an introduction to the history of the World Bank written from the inside, see Devesh Kapur, John Lewis and Richard Webb, eds, The World Bank: Its First Half Century, 2 vols, Washington, dc 1997; among the many critical histories, see Michael Goldman, Imperial Nature: The World Bank and Struggles for Social Justice in the Age of Globalization, New Haven, ct 2005. The message is clear: the World Bank lends money for the purpose of stimulating development, notably in the rural South, and is therefore involved with loans, investments and debts. It works through programmes and projects, and considers trade a key resource for economic growth. Being concerned with development, the Bank deals with all sorts of economic, financial and fiscal matters, and is in touch with private business. All quite <u>simple</u>, and perfectly <u>straightforward</u>.

And yet, behind this façade of uniformity, a major metamorphosis has taken place. Here is how the Bank's Report described the world in 1958:

The Congo's present transport system is geared mainly to the export trade, and is based on river navigation and on railroads which lead from river ports into regions producing minerals and agricultural commodities. Most of the <u>roads radiate short distances from cities</u>, <u>providing farm-to-market communications</u>. In recent years road traffic has increased rapidly with the growth of the internal market and the improvement of farming methods.

And here is the Report from half a century later, in 2008:

Levelling the playing field on global issues

Countries in the region are emerging as key players on issues of global concern, and the Bank's role has been to support their efforts by partnering through innovative platforms for an enlightened dialogue and action on the ground, as well as by supporting South–South cooperation.

It's almost another language, in both semantics and grammar. The key discontinuity, as we shall see, falls mostly between the first three decades and the last two, the turn of the 1990s, when the <u>style of the Reports becomes much more codified</u>, self-referential and detached from everyday language. It is this Bankspeak that will be the protagonist of the pages that follow.

I. SEMANTIC TRANSFORMATIONS

Nouns are at the centre of World Bank Reports. During the first two decades, 1950–70, the most frequent among them can be grouped in two main clusters. The first, obviously enough, encompasses the economic activities of the Bank: loan/s, development, power (in the sense of electricity), programme, projects, investment, equipment, production, construction, plant; further down the list are companies, facilities, industry, machineries, followed by a string of concrete terms like port, road, steel, irrigation, kWh, river, highway, railway—and then timber, pulp, coal, iron, steam, steel, locomotives, diesel, freight, dams, bridges, cement, chemical, acres, hectares, drainage, crop, cattle, livestock. All quite appropriate for a bank which offers loans and investments (the only explicitly financial terms in this long list) to promote a variety of infrastructural development projects. [3] Adjectives are rare, in the solidly 'material' universe of the Bank's early decades: aside from fiscal, economic and financial, only electric and hydroelectric have a significant presence, later joined by dairy, which signals a concern with health, agriculture, and family life.

The second noun cluster is much smaller (just a dozen words), and describes how the Bank actually operates. Confronted with existing demands, its experts analyse *numbers*, but they also pay *visits*, realize *surveys* and conduct *missions* in the field; the classic ingredients of a scientific approach to a complex situation, which requires the active presence of experts to collect and elaborate the data. Afterwards, the Bank proceeds to *advise* countries, *suggest* solutions, *assist* local governments and *allocate* its loans. Rhetorically, investment programmes are defined by the needs of the local economy, according to the basic idea that investment in infrastructure will lead to economic development and social well-being. At the end of every cycle, the Bank specifies what has been *lent*, *spent*, *paid* and *sold*, and describes the equipment—*dams*, *factory*, *irrigation systems*—that has been put into operation. A clear link is established between empirical knowledge, money flows and industrial constructions: knowledge is associated with physical presence *in situ*, and with calculations conducted in the Bank's headquarters; money flows involve the negotiation of loans and investments with individual states; and the construction of ports, energy plants, etc., is the result of the whole process. In this eminently temporal sequence, a strong sense of causality links expertise, loans, investments, and material realizations.

Apart from the Bank, three types of social actors appear in the texts during this period: states and governments; companies, banks and industry; engineers, technicians and experts. This social ontology confirms the standard account of post-war reconstruction as industrial, Fordist and Keynesian. The protagonists of economic growth are businessmen and bankers, working with industrial companies, economists and engineers to implement projects within a national framework presided over by a state. What has to be managed is the economy—'the self-contained structure or totality of relations of production, distribution and consumption of goods and services within a given geographical space', as Timothy Mitchell has put it—whose results are optimized by a 'modern apparatus of calculation and government'. [4] Timothy Mitchell, Carbon Democracy: Political Power in the Age of Oil, London and New York 2011, pp. 125, 123. With the help of the Bank, governments adjust investments and financial parameters so as to modernize countries: that is to say, to industrialize them, beginning with basic material infrastructures. It's the legacy of Walt Whitman Rostow, author of The Stages of Economic Growth: A Non-Communist Manifesto (1960) and a key policy advisor to American administrations from Eisenhower to Johnson. Development proceeds in stages, and its 'take-off' is triggered by the production of raw materials, the creation of infrastructures and an agricultural sector oriented towards exports.

Let us pause briefly on a specific passage from 1969. It appears in the general introduction of the Report, in a section on agricultural loans, and its language is so simple, it seems almost featureless:

Many developing countries need to <u>transform their agriculture</u> . . . the Bank Group continues to encourage these trends through its <u>lending for general agricultural development</u>, which totalled \$72.2 million in the 1969 financial year. Diversification into new crops which provide a source of cash income, or improved production of existing ones, was encouraged by loans or credits to support traditional coffee production in Burundi at its normal level, palm oil development in Cameroon, Dahomey, the Ivory Coast and Papua, afforestation in Zambia, and mechanization of sorghum, sesame and cotton farming in the Sudan . . . A \$13 million Bank loan to India will finance the production of seeds of new high-yielding varieties of foodgrains; <u>at full development the project will produce enough seeds to plant seven million acres with the new varieties.</u> This is the first loan the Bank has made for seed production.

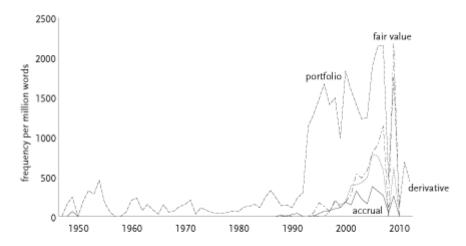
Aside from the initial injunction that agriculture 'needs' to change, the <u>dominant</u> note is one of factual precision: amounts, countries, materials, productive activities, objectives of the investments. Nouns are frequent and adjectives rare: things are being described, not advertised. Verbs specify the type of action involved: *to encourage, provide, improve, support, diversify, produce, finance*. The present tense reports what is happening now (*the bank* continues *to encourage*); when a project has not yet been launched the tense shifts to the future (the credit *will finance* seed production), while the past accounts for what has been completed (diversification was *encouraged*, lending *totalled* \$72.2 million). Clearly demarcating past accomplishments, current actions, necessary policies and future projects, this temporal structure reinforces the sense of factuality of the early Reports.

Finance, management, governance

Let's now shift to the most recent decades. Three new semantic clusters characterize the language of the Bank from the early 1990s on. The first—and most important—has to do with finance: here, alongside a few predictable adjectives (financial, fiscal, economic) and nouns (loans, investment, growth, interest, lending, debt), we find a landslide of fair value, portfolio, derivative, accrual, guarantees, losses, accounting, assets; a little further down the list, equity, hedging, liquidity, liabilities, creditworthiness, default, swaps, clients, deficit, replenishment, repurchase, cash. In terms of frequency and semantic density, this cluster can only be

compared to the material infrastructures of the 1950s–60s; now, however, work in agriculture and industry has been replaced by an overwhelming predominance of financial activities. Figure 1 is a good illustration of the Bank's new priorities.

FIGURE 1: The Rise of Financial Language, 1950–2010

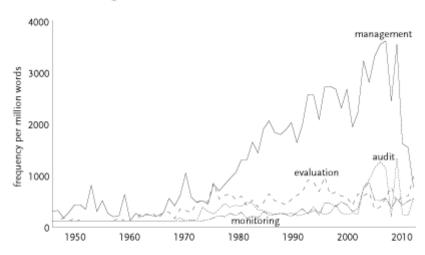


Portfolio, though present from the beginning in the text of the Reports, undergoes a vertiginous rise—a five- to ten-fold increase—in the mid-1990s, which is also the moment when the other terms become increasingly frequent.

Click here to open a larger version of this picture in a new window

The second cluster has to do with management—a noun that, in absolution is the second most frequent of the last decade (lower than loans, but higher than risk and investment!). In the world of proportunities, challenges and critical situations, they elaborate strategies. To appreciate the novelty, let's recall that, in the 1950s—60s, issues were studied by experts who surveyed and conducted missions, published reports, assisted, advised and suggested programmes. With the advent of management, the centre of gravity shifts towards focusing, strengthening and implementing; one must monitor, control, audit, rate (Figure 2); ensure that everything is done properly while also helping people to learn from mistakes. The many tools at the manager's disposal (indicators, instruments, knowledge, expertise, research) enhance effectiveness, efficiency, performance, competitiveness and—it goes without saying—promote innovation.

FIGURE 2: Management Discourse



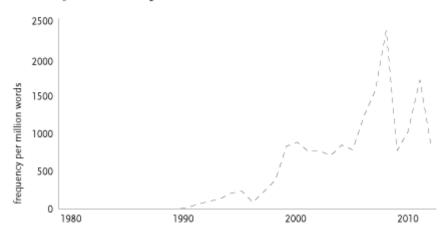
Though never absent from the Bank's vocabulary, management started its ascent in the late 1970s, when the debt question became central, and was subsequently associated with the drastic 'structural adjustment' policies of the neo-liberal offensive. But it's only in the 1990s–2000s that management discourse truly flourishes, hinting—at least in subliminal form—that the Bank's activities are being constantly evaluated and certified by the most advanced tools and the best experts, and that, as a consequence, its investments are the fruit of serious reflection, and their results are as good as they can possibly be.

Click here to open a larger version of this picture in a new window

To better understand this 'management discourse', as Boltanski and Chiapello have called it in *The New Spirit of Capitalism*, we decided to run a little experiment. We took two related expressions—'poverty' and 'poverty reduction'—and followed their occurrences from 1990 to 2010, comparing their respective 'collocates': that is to say, the words that tend to occur most often in their immediate proximity. Near poverty, the dominant note was one of straightforward economic realism: bank was the most frequent word; million, the second; and then total, cost, population, incomes, services, problems, work, production, employment, resources, food, health, agriculture. Which makes perfect sense, because these are indeed the terms that define the perimeter of poverty. What doesn't make sense, on the other hand, is that only four of them—services, work, resources, health—should reappear near poverty reduction. Poverty is the problem, poverty reduction the policy that should address it; they should have plenty of core terms in common. And instead, the most characteristic collocates of poverty reduction are not cost, population, income—let alone production or employment—but strategies, programmes, policies, focus, key, management, report, goals, approach, projects, framework, priorities, papers. 'Management discourse', in all its glory. Never mind employment and income: focus, key, approach, framework—these are the critical terms in reducing poverty. Policy turned into paperwork, with goals and priorities and papers inching their way through the department that—in the acronym-obsessed language of the Reports—is known as prem: Poverty Reduction and Economic Management.

The third semantic cluster of the last two decades comprises governance and moral behaviour. [5] Dominique Pestre, ed., Le gouvernement des technosciences: Gouverne le progrès et ses dégâts depuis 1945, Paris 2014. Governance, first of all: this shibboleth of World Bank language first showed up in a crowded sentence of the 1990 Report—'the strength of managerial institutions and personnel and the quality of governance also determine how well reform policies are actually put into practice'—and then increased its presence to the point that it is now as frequent as 'food', occurring ten times more often than 'law' and a hundred times more than 'politics' (Figure 3). [6] When a word becomes so pandemically frequent, its uses multiply out of control, and before long no one knows what it means any longer. Here is the chief economic commentator of the Financial Times, Martin Wolf, writing about the Indian elections on 21 May 2014: '[Modi's] motto—"less government and more governance"—has caught the public mood. Yet it is not clear what this will mean in practice.' And Robert Zoellick, himself a former president of the World Bank, writing on Chinese policy in the same newspaper: 'The reforms will focus on economic governance and modernization. These terms may seem ambiguous to westerners . . . ' (13 June 2014). In a delightful twist of language, the term brandished by the World Bank to chastize developing economies is now used by those very economies as defensive camouflage against Western scrutiny.

FIGURE 3: The Ascent of 'Governance'



In its irresistible rise, 'governance' has been invariably associated with words of a positive, even euphoric nature: good, reforms, assistance, growth, efforts, capacity, transparency, education, effective/ness, progress, stability, protection, health, access, implementation, human, new, sound, sustainable, strong, better, more and most. The same message is conveyed by verbs, which often appear in the progressive form, as if to identify the notion of governance with a tireless ongoing activity: improve/ing/ed, strengthen/ing, support/ing, including, building, promoting, help/ing, restructuring. The only black sheep in this uplifting list is—corruption. (When one of us consulted a World Bank employee on the meaning of governance, the answer was: 'It's the opposite of corruption'). Unlike government, in other words—which can be good, bad, even very bad—governance can only be good. It is hard to think of another term of political discourse with the same one-dimensional tilt.

Click here to open a larger version of this picture in a new window

Three <u>adjectives have been shadowing governance</u> in its irresistible progress: <u>global, environmental, civil</u>. They are complemented by <u>dialogue, stakeholders, collaboration</u>, <u>partnership, communities, indigenous people, accountability—plus climate, nature, natural, forest, pollution</u>. Even <u>health</u> and <u>education</u> have ended up near the orbit of governance (Figures 4 and 5).

FIGURE 4: The Governance Galaxy—I

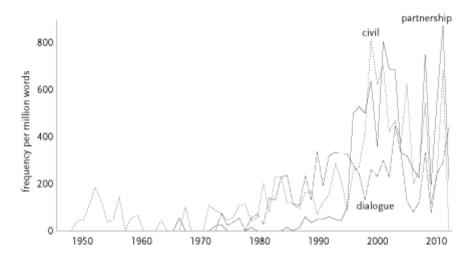
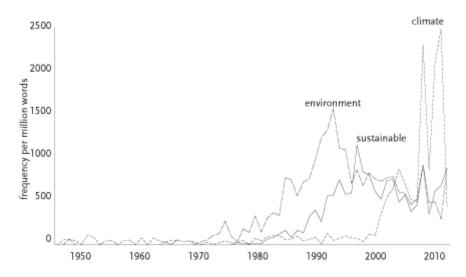


Figure 5: The Governance Galaxy—11



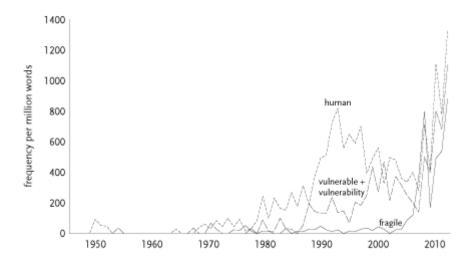
Civil has been associated with various nouns over the years, but its rise in the 1980s is linked to the expressions civil society and civil society organizations (CSOS). Dialogue—mainly with CSOS and NGOS—grows from the mid-1970s to the mid-1990s; partner/ship emerges later, after the mid-1990s, when projects with other global organizations (WTO, IMF, UN . . .) become increasingly frequent. All these waves indicate so many subtle shifts in the institutional meaning of governance. Environment first appears in the 1970s, and undergoes a meteoric rise in the 1980s. Sustainable development emerges a decade later (following the publication of the Brundtland Report in 1987), and its semantic tightrope-walking—that aims at superseding the crude antithesis between economic growth and the protection of the environment—makes it as important as environment after 1995. Climate (in the sense of climate change) becomes significant in the 2000s—largely absorbing references to environment—although the majority of its occurrences have actually to do with business climate.

Click here to open a larger version of this picture in a new window

Finally, the semantic cluster of *governance* includes a series of terms which express a sense of compassion, generosity, rectitude or empathy with the world's problems. Virtually absent in previous decades, these ethical claims emerge in the mid-1980s, and become second nature by the early 1990s, when *responsible,responsibility*, *effort*, *commitment*, *involvement*, *sharing*, *care* are suddenly everywhere. [7] The expression 'fair value'—where the ethically inflected adjective mitigates the businesslike realism of the noun—is particularly interesting in this respect. Nor is the Bank blind to *fragile* and *vulnerable* people, to *poverty* (revitalized in 1995 by the new Director General James Wolfensohn), and to all that is *human* (Figure 6). This cluster also includes *rights*, *law*, *justice* and *(anti-)corruption*. People, behaviour and results are *outstanding*, *significant*, *relevant*, *consistent*,

strong, good, better. Enhancing and promoting what is appropriate, equitable and sound: this is the Bank's credo. The overall effect is one of dedication and commitment; the Bank's sense of responsibility is as admirable as its efficiency.

FIGURE 6: The Good Bank



Click here to open a larger version of this picture in a new window

Let us again pause on a specific passage to add some texture to our analysis. Here is the opening of the 2012 Report:

The World Bank is committed to achieving and communicating results.

In its ongoing dedication to overcoming poverty and creating opportunity for people in developing countries, the Bank is making progress both internally and in the field, and it continues to improve the way it serves its client countries.

A place full of 'opportunities' that the poor may seize in order to change their condition: this is how the Bank sees the world. Within this scenario, its activity consists in establishing the legal and cultural framework necessary for a variety of initiatives to flourish; still investment in infrastructures, in a sense—except that they're no longer made of stone and steel. The Bank is dedicated and committed, thoughtful, invested in a better world. It is forward-looking, its dedication ongoing, constantly thinking about improving and serving the poor countries that are its . . . clients.

Clients? At first, the word is jarring: if <u>dedication</u> suggests a universe of moral justice, <u>client</u> refers to business, rational interests, <u>and power relations</u>. In deliberately linking them within a single sentence, though, the Bank suggests that the two are no longer in opposition: nowadays, business is as attentive to <u>stakeholders</u> as to <u>shareholders</u>; like civil society and the Bank itself, it is socially and environmentally <u>responsible</u>, and engaged in <u>durable governance</u> made of multiple <u>partnerships</u>. <u>Ethics is at the heart of the business world</u>, and of its contractual relationships.

Complexity and crisis

Having established the two contrasting paradigms of World Bank discourse, let us briefly sketch the process that led from the one to the other. A few adjustments aside, the intellectual framework that defined the Bank's operations in the 50s and 60s remained fundamentally in place use the late 1970s: irrigation, chemical inputs, the Green Revolution and the industrial-infrastructural synergy continue to be key ingredients of economic take-off. But the belief in a linear approach is losing its force: as the 1960s come to a close, it becomes clear that, if building infrastructure is relatively simple, its reliable long-term operation is not: it requires specialists, qualified workers and the regular supply of key products like electricity—none of which can be taken for granted in the countries of the South. To make things worse, international exchanges seem to respect neither the Bank's hopes, nor the theories of development à la Rostow. The prices of agricultural raw materials—crucial for the economies of the South—are far from stable and undergo major falls, from which recovery is difficult. The consequences of such instability can be dramatic: as prices drop, developing countries cannot afford to persevere on the virtuous path by which the export of raw materials finances the growth of infrastructure . . . and the repayment of foreign loans. Mindful of its investments, the Bank is worried.

The language of the Reports adapts to the changing environment; words like *commodities*, or *improvements*, raise the analysis to a higher level of abstraction than, say, *hydroelectric plants* and *cement*. And since leading the world by relying merely on material infrastructures no longer seems enough, other 'factors' are taken into account: the market, of course, but especially the 'human factor'. On becoming the Bank's president in 1967, Robert McNamara places lbj's 'war on poverty' at the centre of its strategy. It's the time of *small-scale farms* and *cooperatives* (faint echoes of decolonization and social unrest); of *farmers* (previously marginal to the Bank's policy); of *families* (and soon of *women*). *Education* is now seen as indispensable in maintaining progress, along with *school*, *primary*, *secondary*, *educational*, *training*. It's the time of the explosion of *towns* (and shantytowns); of rural emigration, and the deterioration of the *urban* (a ubiquitous adjective) way of life; whence a long list of new problems—*housing*, *drainage*, *sewers*.

In the second half of the 1970s, the oil crisis introduces new exogenous elements. Words like *debt*, *borrowed* and *borrowing* become increasingly frequent, along with those that refer to a country's reliability (or lack thereof): *cost/s*, *exports*, *co-financing*. The discourse of *reform*—destined for unimaginable success—begins to take shape. And since debt is linked to the evolution of *prices*, these, too, become more visible in the Reports (in fact, it's amazing how *in*visible they had previously been). The crisis reveals the World Bank as, indeed, a bank—and one that finds it difficult to recover its loans: a fact that may seem obvious, but that, until then, had been largely muted.

In response to all this, the causal chain linking *loans* and *development*, investments and economic progress, is lengthened to include families and education, small farmers and sewers. This is hardly an unfeasible adjustment, and even the logic behind the debt continues to appear reasonably simple: there are loans, faltering exports, problematic reimbursements—the interconnections are clear, comprehensible. But the world as seen through the World Bank Reports is becoming less linear than it used to be; socio-economic dynamics are harder to disentangle, and there is a faint surprise in the face of events that aren't following the expected course. At times, the surprise seems genuine; if this were so (but is it possible?) it would speak volumes about the delusions of development in the post-war period. As the policy of infrastructural growth becomes partially destabilized, a sense of indecision and even openness emerges—in sharp contrast with the previous decades, when everything was self-evident and almost automatic. But the openness will not last; at the end of the 1970s, the auto-pilot will be reinserted —this time, *en route* to 'structural adjustment'.

Debts and restructuring

The Reports of the 1980s are dominated by the debts of the South, and by the structural adjustments that are the keyword of the decade. The semantics of crisis is omnipresent—deterioration, deficit, decline, indebted, issues, difficult—and defines the parameters that must be met before granting any country a new loan: balance of payments, current account, debt services. The hope of recovery, for its part, is heard far less often. It's the 'development philosophy' of the times: liberal recipes that will ensure the only thing that matters, the return to growth. This means expanding trade, expanding the private sector, raising competitiveness; the rules of economic activity must be redefined (making it freer), and the role of the state reduced. It's the moment of the liberalization of the public sector. People must learn to be efficient and cost-effective, care about performance, develop incentives. The Bank outlines the solutions, and demands that they be implemented, leaving little room for negotiation. Restructuring and rescheduling are the only way to reassure the creditors.

A few chronological details. In the years 1982–89, the main semantic cluster is still a melancholy one: slowdown, stagnation, degradation, depreciation, devaluation, fall/fell, exacerbated, severe. In the 1990s, there is a shift toward private sector, privatization, privatized, financial sector, creditworthiness, along with market-oriented activities and institution building, a code word for the liberalization/privatization of public institutions. The lexicon of global finance has not yet emerged, although that of nature, the environment and civil society is beginning to circulate. Meanwhile, management leaves its imprint on a series of verbs which express the harsh policies prescribed by the Bank: to address, target, accelerate, support, restructure, implement, improve, strengthen, aim, achieve . . .

Aside from individual words, it's the nature of the Bank's language that is changing: becoming more abstract, more distant from concrete social life; a technical code, detached from everyday communication and pared down to the economic factors crucial to the repayment of the debt. Solutions are disengaged from any specificity: they are the same for everybody, everywhere. Faced with the potentially devastating consequences of default, the Bank's chief objective is no longer development, but, more simply, the rescue of private lenders (Harpagon: 'My casket! My casket!'). The banker must be saved before the client: doubts have disappeared, and the Bank's core beliefs are hammered home over and over again: the economy must be strengthened by making it leaner; the public sector must be restructured to create favourable conditions for private business and the market; the state must shrink and become more efficient. Such 'solutions' transcend the need to respond to the debt crisis: they aim at social transformation through the return to an uncompromising liberalism.

II. GRAMMATICAL PATTERNS

So far, our findings have been rather straightforward: <u>as the economic situation evolves</u>, <u>policy changes</u>, and <u>language too</u>; <u>yet the Bank itself remains the same</u>. We will now shift our attention to aspects of language that change very little, and very slowly. A 'bureaucratization' of the Bank's discourse, one could call it—except that it's more than that: it's a style that self-

organizes around a few elements, then starts generating its own message. Let us try to explain, by returning to the two passages we quoted at the beginning of this essay. The one from 1958, on 'the Congo's present transport system', was full of rivers, farms, markets, railroads, ports, minerals, cities . . . It couldn't have been clearer. The second passage, from 2008, was different. Here it is again:

Levelling the playing field on global issues

Countries in the region are emerging as key players on issues of global concern, and the Bank's role has been to support their efforts by partnering through innovative platforms for an enlightened dialogue and action on the ground, as well as by supporting South–South cooperation.

Issues, players, concern, efforts, platforms, dialogue, ground . . . 'The whole tendency of modern prose is away from concreteness', wrote Orwell in 'Politics and the English Language', and his words are as true today as they were in 1946. The Bank stresses the importance of what it's saying—key, global, innovative, enlightened—but its words are hopelessly opaque. What is it really trying to say—or to hide?

'A mass of Latin words falls upon the facts . . . '

Opacity is hard to understand, so we will break it down into smaller units, beginning with its movement 'away from concreteness'. In the passage from 2008, the terms action and cooperation belong to a class of words usually known as 'nominalizations', or 'derived abstract nouns'; derived, in this case, from verbs: to 'act', to 'cooperate'. [8] On nominalizations, see Douglas Biber, Susan Conrad and Randi Reppen, Corpus Linguistics: Investigating Language Structure and Use, Cambridge 1998, p. 60ff; and Douglas Biber, Stig Johansson, Geoffrey Leech, Susan Conrad and Edward Finegan, Longman Grammar of Spoken and Written English, London 1999, p. 325ff. In English, such terms are recognizable by their typical ending in -tion, -sion and -ment (implementation, extension, development . . .); so, we extracted from the Reports all the words with such an ending and hand-checked the top 600 (to eliminate 'station', 'cement', and the like). Figure 7 presents the results. According to corpus linguistics, in academic prose the average frequency of nominalizations derived from verbs is 1.3 per cent. In the World Bank Reports, the frequency is near 3 per cent from the start, with a higher peak around 1950, and it keeps growing, slowly but steadily, plateauing at 4 per cent between 1980 and 2005, and dropping slightly thereafter.

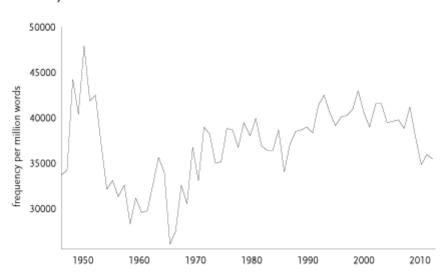


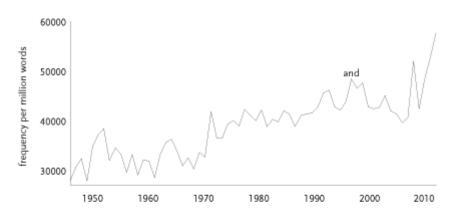
FIGURE 7: Nominalizations

Click here to open a larger version of this picture in a new window

A class of words that is used two or three times more often than in comparable discourses. [9] This of course doesn't mean that *every* nominalization increases its frequency. In parallel with the semantic shifts described in the previous pages, many terms related to political processes [*legislation*, *representation*], inter-state diplomacy [*agreement*, *negotiation*], or forms of critical vigilance [*examination*, *investigation*] have become markedly less frequent over the years: *agreement* was the 5th most frequent nominalization in the early Reports, and is now the 15th; *legislation* has dropped from 31st to 99th, and so on. By contrast, other terms have enjoyed a lightning ascent *management* was only the 18th most frequent nominalization at the beginning of the Bank's activity, and is now the second; *implementation*, *adjustment*, *evaluation*, *commitment* and *assessment*, none of which were among the 100 most frequent nominalizations, are now in 8th, 9th, 11th, 13th and 14th place. See also Figure 9, below. Why? What do nominalizations do, that the Reports should use them with such insistence? They take 'actions and processes'

and turn them into 'abstract objects', runs a standard linguistic definition: [10] Biber et al, *Corpus Linguistics*, p. 61ff. you don't support countries which are cooperating with each other; you support 'South–South cooperation'. An abstraction, where temporality is abolished. 'The *provision* of social services and country *assessments* and *action* plans which assist in the *formulation* of poverty *reduction* policies', writes the Report for 1990—and the five nominalizations create a sort of simultaneity among a series of actions that are in fact quite distinct from each other. Providing social services (action one) which will assist (two) in formulating policies (three) to reduce poverty (four): doing this will take a *very* long time. But in the language of the Report, all these steps have contracted into a single policy, which seems to come into being all at once. It's magic.

FIGURE 9: World Bank Parataxis



Initially, the frequency of 'and' in World Bank Reports was around 2.6 per cent, which is also its average frequency in academic prose. Over the last 60 years, however, its presence has almost doubled (and it is even higher, close to 7 per cent, in the proximity of 'governance').

Click here to open a larger version of this picture in a new window



And then—the authors of Corpus Linguistics continue—in nominalizations, actions and processes are 'separated from human participants': [11] Biber et al, Corpus Linguistics, p. 61ff. cooperation, not states which cooperate with each other. 'Pollution, soil *erosion,* land *degradation,deforestation* and *deterioration* of the urban *environment'*, mourns another recent Report, and the absence of social actors is striking. All these ominous trends—and no one is responsible? 'Prioritization' enters the Reports as debt crisis looms; meaning, quite simply, that not all creditors would be treated equally: some would be reimbursed right away, others later; some in full, and others not. Of course, the criteria according to which X would be treated differently from Y had been decided by someone. But prioritization concealed that. Why X and not Y? Because of prioritization. In front of the word, one can no longer see—one can no longer even imagine—a concrete subject engaged in a decision. 'Rendition': an American secret agency kidnaps foreign citizens to hand them over to another secret service, in another country, that will torture them. In 'rendition', it's all gone. It's magic. [12] Black magic, in this case, consistent with the fact that political speech and writing are largely the defence of the indefensible, as Orwell put it in his 1946 essay. Interestingly, Orwell himself had found nominalizations—'a mass of Latin words falls upon the facts like soft snow, blurring the outline and covering up all details' to be entwined with the phenomena he was describing: 'Defenceless villages are bombarded from the air', he writes, and 'this is called pacification. Millions of farmers are robbed of their farms . . . this is called rectification of frontiers. People are imprisoned for years without trial, or shot in the back of the neck or sent to die of scurvy in Arctic lumber camps: this is called elimination of unreliable elements.' ('Politics and the English Language', 1946, now in The Collected Essays, Journalism and Letters of George Orwell, vol. iv, 1945–50, Harmondsworth 1968, p. 166). The politico-military cast of Orwell's examples makes them of course quite unlike the typical World Bank nominalizations; unsurprisingly, 'pacification', 'rectification', and 'elimination' are never used in the Reports. Our thanks to Dallas Liddle for pointing out this aspect of Orwell's essay.

This recurrent transmutation of social forces into abstractions turns the World Bank Reports into strangely metaphysical documents, whose protagonists are often not economic agents, but principles—and principles of so universal a nature, it's impossible to oppose them. Levelling the playing field on global issues: no one will ever object to these words (although, of course, no one will ever be able to say what they really mean, either). They are so general, these ideas, they're usually in the singular: development, governance, management, cooperation. It's the 'singularization' that Reinhart Koselleck discovered in late eighteenth-century thought: 'histories', which had 'previously existed in the plural, as all sorts of histories which had occurred', becoming 'history in general'; the 'progresses' of the various technical and intellectual branches converging into a single 'progress', and so on. [13] Reinhart Koselleck, 'On the Disposability of History', and 'Neuzeit: Remarks on the Semantics of Modern Concepts of Movement', in Futures Past: On the Semantics of Historical Time, Cambridge, ma 1985, pp. 200, 264.

For Koselleck, singularization was the result of the 'growing complexity of economic, technological, social and political structures', which forced social theory to increase the 'degree of generality' of its categories. [14] It is of course far from irrelevant that 'histories' became 'history in general' in the specific context of late eighteenth-century Europe, which was increasingly imposing its rule over the other continents. In this respect, singularization created knowledge and hierarchies at once, subjecting the world system to a single European perspective. Which is true: singular abstract nouns allow us to synthesize and generalize, and are thus indispensable to the construction of knowledge. But World Bank Reports are not primarily about knowledge: they are about policy; and in policy, singularization suggests not a greater generality, but a stronger constraint. There is only one way to do things: one development path; one type of management; one form of cooperation. It's hard to believe, but the verb todisagree never appears in the Reports; disagreement, twice in seventy years. [15] So hard to believe, that three separate people checked on four separate occasions—always with the same result. As for 'agree' and 'agreement', they appear 88 and 1,773 times respectively. It's the formula made famous by Margaret Thatcher: There Is No Alternative. And singularizations assert this, not with arguments, but with the unspoken 'fact' of a recurrent grammatical pattern. World Bank policies change, as we have seen, but singularization does not: each new policy is the only possible one (Figure 8). [16] The fact that, in nominalizations, actions are entirely absorbed into the noun, increases the sense of a onedimensional world. If one speaks of 'managers', one can (at least in theory) imagine them acting in more than one way; if one speaks of 'management', a specific form of activity is already inscribed in the term, and pre-determined by it.

30000 25000 equipment. management, 20000 production etc. provision etc. frequency per million words 15000 10000 5000 0 1950 1960 1970 1980 1990 2000 2010

FIGURE 8: Two Policies, One Grammar

If one compares the 25 most frequent nominalizations of the first and last decades of World Bank history, two very different political clusters emerge: the first group is defined by terms such as equipment, production, construction, irrigation, operation, distribution, rehabilitation, completion, transmission; the second, by management, provision, statement, adjustment, evaluation, implementation, assessment, participation, corruption, option. Only 7 of the 25 terms are shared by the two groups—development being by far the most frequent in both cases. (The chart shows the frequency of the two groups once development has been removed.)

Click here to open a larger version of this picture in a new window

The transition from semantic clusters to grammatical structures—from the first to the second part of this essay—entails, so to speak, a certain loss of momentum: compared to the dramatic trajectories of Figures 1–6, with their five- or ten-fold increases, the mild incline of Figure 7 is hardly impressive. But its slowness tells us something which is just as important: behind all the changes, the first element of an institutional 'style' had successfully crystallized. Nominalizations remained unusually frequent because they 'worked' in so many interconnected ways: they hid the subject of decisions, eliminated alternatives, endowed the chosen policy with a halo of high principle and prompt realization. Their abstraction was the perfect echo of a capital that was itself becoming more and more deterritorialized; their impossible ugliness—'prioritization': come on!—lent them a certain pedantic reliability; their ambiguity allowed for the endless small adjustments that keep the peace in the world order. And so, this mass of Latin words became a key ingredient of 'how one talks about policy'. Specific semantic fields rise and fall with their referents; they are, one could almost say, the *histoire événementielle* of political language. Grammar is made of rules and repetition, and its politics is in step with longer cycles: structures, more than events. It defines, not *a* policy of the Bank, but the way in which *every* policy is put into words. It is the magic mirror in which the World Bank can gaze, and recognize itself as an institution.

And ... and ... and ...

We briefly discussed the collocates of *governance* in the caption to Figure 3, but we didn't mention that the biggest surprise came with the most frequent collocate of all: *and*. 'And'? The most frequent word in English is 'the': everybody knows that. So, what is 'and' doing at the top of the list? Two passages from the 1999 Report may help to explain:

promote corporate governance and competition policies and reform and privatize state-owned enterprises and labour market/social protection reform

There is greater emphasis on quality, responsiveness, *and* partnerships; on knowledge-sharing *and* client orientation; *and* on poverty reduction

The first passage—a grammatico-political monstrosity—is a small present to our patient readers; the second, more guarded, is also more indicative of the rhetoric in question. Knowledge-sharing has really nothing to do with client orientation; poverty reduction, nothing to do with either. There is no reason they should appear together. But those 'ands' connect them just the same, despite the total absence of logic, and their paratactical crudity becomes almost a justification: we have so many important things to do, we can't afford to be elegant; yes, we must take care of our clients (we are, remember, a bank); but we also care about knowledge and partnership and sharing and poverty!

'Bankspeak', we have written, echoing Orwell's famous neologism; but there is one crucial difference between the lexicographers of 1984 and the Bank's ghost writers. Whereas the former were fascinated by annihilation ('It's a beautiful thing, the destruction of words . . . every year fewer and fewer words, and the range of consciousness always a little smaller'), the latter have a childish delight in multiplying words, and most particularly nouns. The frequency of nouns in academic prose is usually just below 30 per cent; in World Bank Reports it has always been significantly higher, and has increased slowly and regularly over the years. It is the perfect rhetoric to bring the 'world' inside the 'bank': a 'chaotic enumeration' of disparate realities—to quote an expression coined by Leo Spitzer—that suggests an endlessly expanding universe, encouraging a sense of admiration and wonder rather than critical understanding.

The last passage we quoted—on 'client orientation' and 'poverty reduction'—is a good example of another tic of World Bank discourse: using a noun to modify another noun. Here are some examples of these 'adjunct nouns', as they are usually called, from the 2012 Report:

the Bank's operations effectiveness, including the quality and results orientation of its operations and knowledge activities, the performance of its lending portfolio, the mainstreaming of gender in its operational work, client feedback, and its use of country systems.

Our agenda has included *gender equality, food security, climate change* and biodiversity, *infrastructure investment, disaster prevention*, financial innovation, and inclusion.

Adjunct nouns, the Longman Grammar explains, are a form of pre-modification: in 'poverty reduction', for instance, 'poverty' modifies 'reduction' by coming before it (whereas in 'the reduction of poverty' it does so by appearing after it, a case of postmodification). There is a difference: being 'consistently more condensed than postmodifiers', the Longman authors explain, premodifiers are hence also 'much less explicit in identifying the meaning relationship'. [17] Biber et al, Longman Grammar of Spoken and Written English, pp. 588, 590. More condensed, and less explicit: this is it. Condensed, first of all: this is a brisk rhetoric, succinct, even a little impatient; the language of those who have a lot to say and no time to waste. And then, there's the matter of explicitness. In the case of 'the reduction of poverty', to keep using that example, if you know what the individual words mean, you also know what the expression means: the whole is just the sum of its parts. But 'poverty reduction', like 'disaster prevention', or 'competition policies', is not just the sum of its parts; as we have seen, it is an expression in code—the code of 'management discourse'—whose meaning has more to do with 'approaches' and 'frameworks' than with 'employment' and 'income'. 'Food security', writes the 2012 Report; and what exactly is that? It's the opposite of 'food insecurity', first of all; which, in turn, is a un neologism—half conceptual refinement, half bureaucratic euphemism—for what used to be called 'hunger'. If you don't know the new code, individual words are useless. [18] And the point is, the World Bank wants to communicate in code. We mentioned above the experiment conducted on the collocates of 'poverty' and 'poverty reduction'; but the initial idea was slightly different: we meant to compare 'poverty reduction' and 'the reduction of poverty', to see if there was any semantic difference between pre- and post-modification. However, we had to abandon our idea when it turned out that there were 1,198 occurrences of 'poverty reduction', and only 38 of 'the reduction of poverty'. Which of course is crazy, but at least makes perfectly clear that for the World Bank pre- and post-modification are not equivalent, and that its preference goes unabashedly to the more cryptic of the two constructions.

Here, the process initiated with the advent of nominalizations (which have a clear elective affinity with adjunct nouns: 'operations *effectiveness*', 'results *orientation*', 'disaster *prevention*' . . .) reaches its zenith: the 'mass of Latin words' joins forces with the insider code of 'management discourse', making social reality increasingly unrecognizable. But one question remains. How could such a tortuous form of expression become a leading discourse on the contemporary world?

From here to eternity

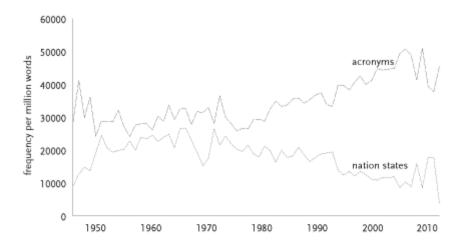
In their book *Laboratory Life*, Bruno Latour and Steve Woolgar wonder about the strange fate of scientific hypotheses: ideas that begin their existence as 'contentious statements', besieged by all sorts of objections, yet at some point manage to 'stabilize', and are accepted as 'facts' pure and simple. How do they do that—how do the World Bank's contentious ideas become accepted as the 'natural' horizon of all possible policies? The key move, write Latour and Woolgar, consists in 'freeing' a statement from 'all determinants of place and time, and all reference to its producers'. [19] Bruno Latour and Steve Woolgar, *Laboratory Life: The Construction of Scientific Facts*, Princeton 1986, pp. 106, 105, 175. Figures 10–11 show how decisively the World Bank has dealt with such 'determinants'.

FIGURE 10: Tempus Fugit



Between 1946 and 2008, the frequency of temporal adverbs ('now', 'recently', 'later' and so on) has dropped by more than 50 per cent. As these adverbs are the simplest way to place events within a system of temporal coordinates, their disappearance suggests a drastic weakening of the sense of time in the Bank's Reports.

FIGURE II: Decline of the Nation-State, Rise of the Acronym



Mentions of nation-states rise in the 1950s, and plateau in the 1960s, with the recognition of many African states. In the late 1970s, after having run more or less parallel for a couple of decades, the frequencies of states and acronyms diverge dramatically, to the point that the latter are now four times as frequent as the former: a clear sign that the geo-political actor where 'determinants of place' are all-important is now being dwarfed by those transnational entities—not just the UN, IMF, WTO, or FAO, but COSO [Committee Of Sponsoring Organizations], FASB [Financial Accounting Standards Board], PRSP [Poverty Reduction Strategy Papers], and so on ad libitum—where space seems to have been entirely transcended.

Click here to open a larger version of this picture in a new window

The growing indifference to space and time is not just a matter of quantity. If one looks at the paragraphs in which the Reports are articulated, one detail leaps to the eye: their endings have completely changed. Here are some instances from 1955:

A modern coffee-processing plant, financed by the Development Bank, was completed near Jimma, the centre of an important coffee-producing area.

Automatic telephone exchanges have been installed in Addis Ababa and Gondar, and manual exchanges in other towns.

This has encouraged investment in industries such as metals and chemicals which are large consumers of power, and has led Norway to develop more generating capacity per head than any other country.

Jimma, Addis Ababa, Gondar, Norway: in these sentences, a strong geographical specificity goes hand in hand with an equally strong sense of time. The coffee-plant 'was completed'; the telephone exchanges 'have been installed'; investment 'has led'. The focus is on *results*; the paragraph comes to an end when the process comes to an end; the relevant grammatical category (the 'aspect' of the verb's tense) is the 'perfect', which indicates that an action has been completed. This is true even in more complex cases, like this one from 1948:

The mission's conclusions *pointed out* that the factors which *had produced* a favourable foreign exchange position in the Philippines *were temporary*, and *stressed* the need *to conserve* foreign exchange, *restrict* inflationary local financing, *take* measures *to lessen* the impact of the *expected* reduction in dollar receipts, and *secure* technical aid *in the planning* of specific development projects.

Here, the initial sense of achievement ('pointed out', 'had produced') leads into the horizon of the present ('conserve', 'restrict'), and then into a many-layered future: the Philippines will have to 'take measures' (soon) 'to lessen the impact' (later) of an 'expected reduction in receipts' (somewhere in between those two futures). The temporality is complex, but its dimensions are clear: the past is the realm of results; the present, of decisions; the future, of prospects and possibilities. In recent years, though, this difference has been diluted. Here is a paragraph ending from 2003:

ida has been moving toward supporting these strategies through programme lending.

Whatever programme lending is, ida has not actually done it; it 'has been *moving*', yes, but that's all; and not even moving towards doing, only towards 'supporting' doing. We've heard so many philippics on 'accountability', in recent years, we would expect a landslide of past tenses in the Bank's language; after all, accountability can only be assessed with reference to what has been *done*. Instead, however, for the Reports the tenses of the past are no longer the right way to 'conclude' a statement; in their place we find the blurred, slightly amorphous temporality of the progressive and the gerund (whose frequency has increased about 50 per cent over the years). Some other recent examples:

The Second Kecamatan Development Project is *benefiting* 25 to 30 million rural Indonesians by *giving* villagers tools for *developing* their own community. (2003)

The Bank significantly accelerated its efforts to help client countries cope with climate change while *respecting* another aspect of its core mission: *promoting* economic development and poverty reduction by *helping* provide modern energy to *growing* economies. (2008)

The Bank has accelerated—but only its efforts; and all these efforts will do is—help; and all those helped will do is—cope; and the helping and coping will have to respect the promoting of the helping (again!) provided to growing economies. But there is no point in looking for the meaning of these passages in what they say: what really matters, here, is the proximity established between policy-making and the forms ending in -ing. It's the message of the countless headlines that frame the text of the Reports: 'Working with the poorest countries', 'Providing timely analysis', 'Sharing knowledge', 'Improving governance', 'Fostering private sector and financial sector development', 'Boosting growth and job creation', 'Bridging the social gap', 'Strengthening governance', 'Levelling the playing field on global issues'. All extremely uplifting—and just as unfocused: because the function of gerunds consists in leaving an action's completion undefined, thus depriving it of any definite contour. An infinitely expanding present emerges, where policies are always in progress, but also only in progress. Many promises, and very few facts. 'Everything has to change, in order for everything to remain the same', wrote Lampedusa in The Leopard; and the same happens here. All change, and no achievement. All change, and no future.

[1] Two scholars working in different disciplines don't usually have the opportunity to learn about each other's research, and the mental freedom to imagine a long-term project together. This is however exactly what happened to us, at the Wissenschaftskolleg in Berlin, in the spring of 2013; after which, the researchers of the Stanford Literary Lab helped us turn a vague idea into a series of solid findings. To all those who made this study possible, our heartfelt thanks.

- [2] Our corpus consists of the full text of the World Bank Annual Reports, 1946–2012, excluding the budgets and all financial tables. The word *bank* as used in the Reports generally refers to the World Bank. The International Bank for Reconstruction and Development (ibrd) was the original World Bank institution, established in 1944 at Bretton Woods; it is now subsumed within the World Bank Group, which includes an agency for private investment, an insurance agency, an arbitration forum and the International Development Association, established in 1960 to offer concessional loans to the poorest countries. For an introduction to the history of the World Bank written from the inside, see Devesh Kapur, John Lewis and Richard Webb, eds, *The World Bank: Its First Half Century*, 2 vols, Washington, dc 1997; among the many critical histories, see Michael Goldman, *Imperial Nature: The World Bank and Struggles for Social Justice in the Age of Globalization*, New Haven, ct 2005.
- [3] Adjectives are rare, in the solidly 'material' universe of the Bank's early decades: aside from *fiscal*, *economic* and *financial*, only *electric* and *hydroelectric* have a significant presence, later joined by *dairy*, which signals a concern with health, agriculture, and family life.
- [4] Timothy Mitchell, Carbon Democracy: Political Power in the Age of Oil, London and New York 2011, pp. 125, 123.
- [5] Dominique Pestre, ed., Le gouvernement des technosciences: Gouverner le progrès et ses dégâts depuis 1945, Paris 2014.
- [6] When a word becomes so pandemically frequent, its uses multiply out of control, and before long no one knows what it means any longer. Here is the chief economic commentator of the *Financial Times*, Martin Wolf, writing about the Indian elections on 21 May 2014: '[Modi's] motto—"less government and more governance"—has caught the public mood. Yet it is not clear what this will mean in practice.' And Robert Zoellick, himself a former president of the World Bank, writing on Chinese policy in the same newspaper: 'The reforms will focus on economic governance and modernization. These terms may seem ambiguous to westerners . . . ' (13 June 2014). In a delightful twist of language, the term brandished by the World Bank to chastize developing economies is now used by those very economies as defensive camouflage against Western scrutiny.
- [7] The expression 'fair value'—where the ethically inflected adjective mitigates the businesslike realism of the noun—is particularly interesting in this respect.
- [8] On nominalizations, see Douglas Biber, Susan Conrad and Randi Reppen, *Corpus Linguistics: Investigating Language Structure and Use*, Cambridge 1998, p. 60ff; and Douglas Biber, Stig Johansson, Geoffrey Leech, Susan Conrad and Edward Finegan, *Longman Grammar of Spoken and Written English*, London 1999, p. 325ff.
- [9] This of course doesn't mean that *every* nominalization increases its frequency. In parallel with the semantic shifts described in the previous pages, many terms related to political processes [*legislation*, *representation*], inter-state diplomacy [*agreement*, *negotiation*], or forms of critical vigilance [*examination*, *investigation*] have become markedly less frequent over the years: *agreement* was the 5th most frequent nominalization in the early Reports, and is now the 15th; *legislation* has dropped from 31st to 99th, and so on. By contrast, other terms have enjoyed a lightning ascent: *management* was only the 18th most frequent nominalization at the beginning of the Bank's activity, and is now the second; *implementation*, *adjustment*, *evaluation*, *commitment* and *assessment*, none of which were among the 100 most frequent nominalizations, are now in 8th, 9th, 11th, 13th and 14th place. See also Figure 9, below.
- [10] Biber et al, Corpus Linguistics, p. 61ff.
- [11] Biber et al, Corpus Linguistics, p. 61ff.
- [12] Black magic, in this case, consistent with the fact that 'political speech and writing are largely the defence of the indefensible', as Orwell put it in his 1946 essay. Interestingly, Orwell himself had found nominalizations—'a mass of Latin words falls upon the facts like soft snow, blurring the outline and covering up all details'—to be entwined with the phenomena he was describing: 'Defenceless villages are bombarded from the air', he writes, and 'this is called *pacification*. Millions of farmers are robbed of their farms . . . this is called *rectification of frontiers*. People are imprisoned for years without trial, or shot in the back of the neck or sent to die of scurvy in Arctic lumber camps: this is called *elimination of unreliable elements*.' ('Politics and the English Language', 1946, now in *The Collected Essays, Journalism and Letters of George Orwell*, vol. iv, 1945–50, Harmondsworth 1968, p. 166). The politico-military cast of Orwell's examples makes them of course quite unlike the typical World Bank nominalizations; unsurprisingly, 'pacification', 'rectification', and 'elimination' are never used in the Reports. Our thanks to Dallas Liddle for pointing out this aspect of Orwell's essay.
- [13] Reinhart Koselleck, 'On the Disposability of History', and 'Neuzeit: Remarks on the Semantics of Modern Concepts of Movement', in Futures Past: On the Semantics of Historical Time, Cambridge, ma 1985, pp. 200, 264.
- [14] It is of course far from irrelevant that 'histories' became 'history in general' in the specific context of late eighteenth-century Europe, which was increasingly imposing its rule over the other continents. In this respect, singularization created knowledge *and* hierarchies at once, subjecting the world system to a single European perspective.
- [15] So hard to believe, that three separate people checked on four separate occasions—always with the same result. As for 'agree' and 'agreement', they appear 88 and 1,773 times respectively.

[16] The fact that, in nominalizations, actions are entirely absorbed into the noun, increases the sense of a one-dimensional world. If one speaks of 'managers', one can (at least in theory) imagine them acting in more than one way; if one speaks of 'management', a specific form of activity is already inscribed in the term, and pre-determined by it.

[17] Biber et al, Longman Grammar of Spoken and Written English, pp. 588, 590.

[18] And the point is, the World Bank *wants* to communicate in code. We mentioned above the experiment conducted on the collocates of 'poverty' and 'poverty reduction'; but the initial idea was slightly different: we meant to compare 'poverty reduction' and 'the reduction of poverty', to see if there was any semantic difference between pre- and post-modification. However, we had to abandon our idea when it turned out that there were 1,198 occurrences of 'poverty reduction', and only 38 of 'the reduction of poverty'. Which of course is crazy, but at least makes perfectly clear that for the World Bank pre- and post-modification are *not* equivalent, and that its preference goes unabashedly to the more cryptic of the two constructions.

[19] Bruno Latour and Steve Woolgar, Laboratory Life: The Construction of Scientific Facts, Princeton 1986, pp. 106, 105, 175.

BY THE SAME AUTHOR:

Totentanz

Pivotal to Aby Warburg's enigmatic *Atlas Mnemosyne*—which attempted to track morphological similarity from classical art down through the Renaissance—was the idea that there may be formulae for pathos. If so, what can quantitative analysis tell us about them?

Lukács's Theory of the Novel

Centenary reflections on one of the landmarks of twentieth-century thought about literature. Lukács in tension between Novalis and Weber during the Great War, and the implications for literary enquiry today of a conjugation that could never historically be repeated.

'Operationalizing'

Can 'digital humanities' recover from Thomas Kuhn's before-the-fact critique—that no new 'laws of nature' will be discovered just by inspecting the numbers? Testing the limits of the approach, Moretti investigates whether data-crunching can falsify Hegel's theory of tragedy.

Fog

Why did a bourgeoisie commended by Marx for its ruthless rationalism surround itself with clouds of mystification? Franco Moretti traces recurrent refusals of precision through Victorian culture, from Carlyle to Millais, Tennyson to Conrad.

Network Theory, Plot Analysis

What can quantitative methods tell us about literary plots? Franco Moretti maps character networks from Shakespeare, Dickens and Cao Xueqin to shed light on questions of sovereignty, legitimacy and the reciprocity of social relations.

The Grey Area

Flexible morality and capitalist imperatives of the bourgeois fin-de-siècle, as captured in the obscure misdeeds of Ibsen's protagonists.

The Novel: History and Theory

Moretti's 5-volume *Il romanzo* recast the field of the novel—historically deeper, geographically wider, morphologically broader. What are the implications for its theory? Prose, adventure and *xiaoshuo* as explanatory vectors; and prevalence of older power relations in the bourgeoisie's hegemonic literary form.

The End of the Beginning

Franco Moretti responds to criticisms of his quantative approach to literary history, from Christopher Prendergast and Roberto Schwarz. Origins, upshots—and potential limitations?—of the abstract models developed in *Graphs, Maps, Trees*.

Graphs, Maps, Trees - 3

After 'graphs' and 'maps', trees: can evolutionary theory help pattern the transformation of cultural forms and divergence of genres, through time and space? Franco Moretti's final essay on abstract models for literary history.

Graphs, Maps, Trees - 2

After 'Graphs' (see NLR 24), maps: geography, or social geometry? Literary spaces plotted as competing fields for industrialization, peasant rebellion, state formation. The second of Moretti's three essays conceptualizing patterns of genre and history, form and force.