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Foucault often refers to Kant's "What is Enlightenment?" as the beginning of a new form of philosophy, as the event of philosophy posing to itself a new duty: to examine critically the events that constitute the lives of people at a certain time in history. This new duty is not meant to replace the traditional philosophical task of determining universal conditions of being, knowledge, beauty, justice, and so on, but it has, Foucault says, become more and more important to us to perform this selfanalysis, this "history of the present" or "critical ontology of ourselves." Although Deleuze and Guattari do not always thematize this Kantian-Foucaultian demand, they do adhere to it, as we can see from the many analyses of the contemporary world that pepper Anti-Oedipus and A Thousand Plateaus. In the present essay I take up the Kantian-Foucaultian challenge and, using concepts from Deleuze and Guattari's encounter with "complexity theory," develop a naturalizing account of Hurricane Katrina that can contribute to such a "critical ontology of ourselves." By a "naturalizing" account I mean that I use the same conceptual field—that of complex material systems—to understand both the natural and social aspects of the event of Katrina. Furthermore, I use the term "event" not simply in the sense of something that happens, but also as a possible turning point for our social system, one that starkly reveals the poverty of neo-liberalism in conceiving spontaneous social solidarity.

Hurricane Katrina was an elemental and a social event. To understand it, one must first understand the land, the air, the sun, the river, and the sea; one must understand earth, wind, fire, and water; one must understand geomorphology, meteorology, biology, economics, politics, history. One must understand how they have come together in the past to form, with the peoples of America, Europe, and Africa, the historical patterns of life in Louisiana and New Orleans, the bodies politic of the region, bodies one must study with political physiology. One needs to understand what those bodies could do and what they could withstand, and how they intersected the event of the storm.

## The Land and the River

We could start by talking about plate tectonics, or for that matter, stellar nucleogenesis, for at the limit, everything is connected, and to tell the story of Katrina would be to tell the story of all of the earth, all of the cosmos. But everything is connected, not for a God's-eye view, but just

# Katrina

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past the limit of actualization, just beyond the limit when things slow down enough for them to take form. Not even a God could see everything past that limit, because past that limit there is nothing, nothing fixed, though there are elements, as well as relations and singularities: there are multiplicities. Past the limit everything is connected as sets of related changes, rates of change smoothly changing in relation to other rates of change, up until the singular points where those relations change drastically rather than smoothly. Everything is connected, but nothing is fixed, there is no thing there, nothing anyone, not even God. could see or know. So let us begin, as always, in medias res, and talk about the land of Louisiana. To do that, we have to talk about the river The Mississippi drains a vast swath of the North American land mass Almost all of the water that falls between the Appalachians and the Rockies, from the Allegheny river in upstate New York to the Missouri River in Montana, almost all of it that does not evaporate or stay in the soil or in a lake drains down the Mississippi, the "father of waters."

Like all rivers that flow into the sea, the Mississippi snakes about at its head, creating a delta as it floods its banks and lays down sediment picked up upstream by those drops of water which, when they flow fast enough, pick up bits of earth to carry with it. How big those bits of earth are depends on how fast the water flows, and how fast the water flows depends on how much is behind it, pushing it, and on how big a channel it flows through. The bigger the mass of water and the narrower the channel, the faster the flow and the more earth it carries, and the greater the chance the river would overflow the banks and drop that sediment as it slows down and trickles over the face of the earth. As the water flows, it will eddy and swirl, depending on the configuration of the banks and bed, for sometimes a singular configuration will trigger a different pattern of flow. The relation of turbulence and smooth flow will vary, then, not by calculable laws, as would velocity in a perfectly smooth channel, but according to singular points in the configuration of bank and bed. This process went on for some time, as these singularities of the configuration determined which actual pattern of the river's flow would emerge from the differential relations (velocity and turbulence) of the elements (water and earth). At another level, they also determined the historical pattern of that emergence of actual flow, the rhythm of the river's flow and flood.

Slowly, however, after European settlements progressed, flood control via levee construction began. The Europeans built military outposts and then cities on the edge of the river, to the north on the bluffs above the river (Baton Rouge, Natchez, Memphis), and to the south in the swamps along the edge of the river, between the river and the inland sea they called, strangely, a "lake" (New Orleans). The river, when it

floods repeatedly, as it does as part of its natural cycle, leaves a ridge of cediment, highest on the banks and sloping gently away, down toward the swamps, the heaviest sediments dropping out first, building up the natural levee, which tends to subside as it dries out. It is on that natural levee that Bienville founded New Orleans in 1718. The floods still came, of course, since the ridge was a natural levee. On top of that levee the Europeans used their slaves to build more levees, all up and down the river. What happens when you build levees upstream of a point? You change the actualization structure of the water flow, the values that incarnate the multiplicity, the set of linked rates of change and its singular points. There are many ways a flow can occur, given its differentials and singularities, the way its elements intersect the configurations of its channel. In this case, you squeeze the same amount of water into a narrower channel (for now you contain the same relation of mass and velocity that would have flooded the previously lower banks), so the water downstream rises still higher. So you build higher levees. As this positive feedback loop continues, you break the river's old rhythms, you change its relation to the earth around it, you de-territorialize it.

But you cannot stay ahead of the river all the time. Researchers have found that river systems tend toward a state of self-organized criticality, producing a power law distribution regarding riverbank failures and flooding. In other words, one of the guiding principles of human ecology (analogous to treating forest fires) should be that with levee construction vou can stop many little floods, but when the river does flood finally -and the probability of its flooding at some point increases the larger the time scale-then those floods will be big ones (Fonstad and Marcus, 2003). The most famous and destructive of those big ones happened in 1927, and to save New Orleans, the powers that be, out of panic, dynamited the levee southeast of the city, flooding Saint Bernard Parish and endangering if not killing many poor people. (In fact, levee failures upstream, which came the very next day, meant that the city was never really in danger. We will discuss failures of judgment in panic situations later.) In response to 1927, the relation of the federal government to the states changed, for another factor was then in place: the mass media. Radio, newspapers, telegraph, photos transmitted the verbal and visual images of the flood's effects-which were even more severe in Mississippi's Delta region than in Louisiana-to the rest of the nation, including the sight of thousands of African-Americans stranded on levees for days with no food or water and later herded into relief camps. The trauma of the viewers and listeners in other parts (for you can be traumatized by seeing and hearing images of pain caused to others-here we would have to talk about mirror neurons and natural sympathy, which we will do later in discussing the use and misuse of Hobbes in discussing

Katrina) created a demand to control the river even more. So the Corps of Engineers, along with state and local boards, built more and better and bigger levees, enough, they said, to withstand a Category 3 hurricane, determining that level of protection adequate after a cost-benefit analysis (Barry, 1998).

The effects of the Corps projects on the river and the land were profound. First, there is the problem of "subsidence" as the sediment that would ordinarily build up the land is stopped by upstream dams trapping sediment and levees all along the river preventing flooding. Exacerbated by New Orleans' canal and pump system, untreated subsidence means the city is sinking ever faster, as pumping the city dry means drier, more compacted soil, creating a positive feedback loop making the city even more vulnerable. Furthermore, many ship channels and canals were cut into the wetlands. In particular, a deep channel (the notorious Mississippi River Gulf Outlet) was created close to New Orleans so that oceangoing ships would have a short, direct path from the Gulf to New Orleans, where they could intersect another flow carried by the river's flow: the flow of goods from the middle of the country (Bourne. 2000). Coupled with the denial of flooding, this shipping channel (plus hundreds of smaller canals and channels created by the oil industry) changed the ratio of salt and fresh water in the bayous, killing many species of plants and animals. The cypress trees were logged, another insult to the wetlands, for sediment had previously collected around the roots. Another positive feedback loop was set up as coastal erosion accelerated, and another coast line was actualized, one much closer to New Orleans. The other famous positive feedback loop with the river, the "dead zone" in the Gulf of Mexico from fertilizer runoff, did not play a role in Katrina's impact, at least to my knowledge, but we can fit it into our story when we turn to discussing another element.

#### The Sun

The sun figures in our story in many ways: in evaporation, wind production, and bio-energy. Bio-energy is solar energy, mediated by carbon. Photosynthesis forms carbohydrates out of water and carbon dioxide, releasing oxygen and trapping solar energy in the chemical bonds of the complex molecules. Animal metabolism burns this fuel, combining oxygen with the carbohydrates and releasing the energy, plus water and carbon dioxide. It is a little more complicated than that, as nitrogen mediated by microbes in and around plant roots plays a role (and producing concentrated nitrogen fertilizers takes a lot of petroleum or carbon-stored solar energy, and they run off down the Mississippi, producing algae explosions that suck the oxygen out of the Gulf and killing the local sea fauna, creating the "dead zone"), but it is essentially simple: solar energy becomes bio-energy through the mediation of *carbon*.

The most efficient form of bio-available, carbon-mediated solar enerav capture is sugar cane. Cane production under European supervision was shifted from the Atlantic islands to the Caribbean throughout the sixteenth to the eighteenth centuries, using slave labor, at first the native Caribs, then the Irish (let us not fall for the old "indentured servant" line: when Cromwell, in the midst of the Wars of the Three Kingdoms. intensified the shipping of thousands of Irish to Barbados they were claves in all but name), then the Africans. As sugar consumption in Europe worked its way down the class stratifications, displacing other forms of bio-energy, some of which came mixed with protein and vitamins, it played a key role in a positive feedback loop described by Marx in the primitive accumulation chapter of Capital, for a good percentage of modern state revenue came from consumption taxes, which together with national debt funded the military branches of the colonial enterprise. (Marx's analysis centers on Britain, of course, so we would have to work out, mutatis mutandis, the effect on France and hence on the all-important Franco-British relation.) The fact that increased sugar consumption played a role in decreased height for British Army recruits from 1780 to 1850 was offset by various differentials: increased mechanization and internal complexity of the armed forces, for one thing (they call the Queen's Guards the Beefeaters for a reason). Here we see another multiplicity: the differential elements are carbon-mediated solar energy and human muscle power, the relations are hypertrophy/atrophy/ dvstrophy, and the singularities are genetic potentials scattered in the population.

To explain how Africans came to Louisiana, we must also talk about how they came to the Caribbean. To see that, we need to talk about yet another multiplicity in which solar energy is the key, the heat exchange system of the planet. The elements here are sun, water, and air, the relations are heating and cooling, and the singularities are the thresholds for Ice Ages, grand and small, as well as smaller but meteorologically interesting events, such as the Atlantic Multidecadal Oscillation or AMO (Goldberg et al, 2001). The AMO competes with global warming (Webster et al, 2005) as an account for the increased frequency of highintensity Atlantic hurricanes in the post-1990 era. In this exchange system we find ocean currents, including the Gulf Stream (whose heatcarrying capacity and climatological effects help explain how Northern Europe can carry the density of population it has had over the past few millennia by affecting the types of carbon-mediated solar energy it can cultivate in producing bio-energy via agriculture), and the North Equa-

torial Current, which, along with the Trade Winds, helped Europeans travel from the coast of Africa to the Americas. (A shorter ocean and wind current loop system just off the coast of Africa might explain why it seems African sailors rarely went too far off shore, for it was enough for their navigational purposes up and down the western coast of Africa. Of course, it should be admitted that historical research into the exploits of early African sailors has not been pursued with nearly the same enthusiasm as with early European sailors, the Vikings in particular.)

Meshing the multiplicities of the global heat-exchange system and the bio-energy system, we see the actualization we call the Atlantic slave trade. The differential elements here are human muscle power and production processes, or more precisely put, the amount of force over against the precision of direction of that force, or as we put it, skill. The Atlantic slave trade was internally complex. Just to take the example of the eighteenth-century trade to French Louisiana, which was virtually complete by 1731, we must take into account the multiplicity that links the European appreciation of real and imagined differences between Wolof and Bambara slaves, as well as Portuguese competition for slaves in Africa, and competition from buyers in the French West Indies. The resumption of the slave trade to Louisiana under Spanish rule is even more complex, as the trade was no longer almost exclusively from Senegal, but included slaves from Central Africa. (Hall, 1992). In some cases the Atlantic slave trade tapped into the well-established trans-Saharan slave trade, and took the skilled bodies of captive African peasants (we have to overcome our ridiculous urban, that is verbal, prejudices—our Platonic prejudices—and recognize the great embodied skills of peasants) and, after transporting them across the ocean, deskilled or proletarianized them, and set them to work in industrial agricultural practice on Caribbean plantations (industry can occur in plantations as well as factories, as demonstrated by Mintz, 1995). I say "in some cases," because not all Africans were subjected to de-skilling: the wonderful vernacular Creole architecture of Louisiana, for instance, is directly traceable to the work of skilled African slave architects who used Senegambian practices to build homes from native cypress-beginning the deforestation whose effects on coastal erosion we noted above. Among other transplanted economic skills, we should also note that the origins of rice cultivation in the Americas was due to skilled African agriculturalists (Carney, 2002). In fact, proletarianization as part of industrial production on large plantations was the (highly profitable) exception to the rule, as many Africans worked at a wide range of skilled tasks (Fogel and Engerman, 1974). (It should go without saying that all this talk of skills and de-skilling refers to the strictly political-economic concept of proletarianization, and has no bearing on the magnificent creativity or awe-inspiring resistance and resilience of African-American culture, during and after the period of slavery. This resistance, often armed and violent, began of course with revolts in the slave depots of Africa, continued on the ships of the slave trade, and persisted on the American mainland.)

As this system developed, the French colony of Saint Domingue became one of the most profitable, if not the single most profitable, agricultural complexes in the world, growing sugar and coffee. (We could tell another story about how coffee and sugar go together, as well as how tea and sugar go together, and how that difference between French and English tastes ties into the fact that the English beat the French out of India, and then later how the importance of India allowed the English to get out of the slave business in the nineteenth century: why bother with slaves in the Atlantic when the future of the Empire lies in Asia? Before we even mention the Opium Wars, we can see a complex system that is quite literally "political physiology.") But at some point in the late eighteenth century the Saint Domingue system passed a threshold: too fast a rise in the importation rate of "fresh" or "unseasoned" Africans, plus a feverish step-up in production, plus the singularities called Boukman and Toussaint, led to a revolt.

As the years of war went on, quite a few of the *gens libres de couleur* fled Saint Domingue for Louisiana, now a Spanish colony, but with a heavy French heritage, bringing with them their African slaves, and thereby creating one of the factors accounting for the difference between light-skinned and dark-skinned African-Americans in New Orleans and Louisiana. You cannot underestimate the importance of this difference in understanding the social relations of contemporary Louisiana; the ignorance of this difference contributes to the buffoonery of calling the light-skinned Ray Nagin "a black mayor." (I am not saying Nagin belongs to traditional high Creole society, just that his light skin allows him to play the traditional Creole role of mediation between the dark "Africans" and the whites. "Mediation" is a polite word: the free people of color of New Orleans reprised their role in Saint Domingue and became the hunters of escaped African slaves. The way the NOPD took up that disciplinary function is another story that needs to be told.)

Commercialized sugar production in Louisiana did not begin until 1795, as under French rule it was suppressed by the French metropolitan government to avoid competition with Saint Domingue, and under Spanish rule the cultivation was never extensive. Louisiana itself was never a very prosperous or well-managed colony under French rule. Shook to its roots by the Natchez Rebellion of 1729, Louisiana languished in the middle of the eighteenth century, only beginning to revive in the 1770s under Spanish rule. It is only after the Haitian revolution had begun that sugar production began in Louisiana in 1795, sparked by an influx of refugee planters, and using the skills and labor power of "seasoned" or "creolized" slaves from Saint Domingue. After the transfer of the vast Louisiana Territory to the United States in 1803, sugar production boomed (Rodrigue, 2001). The motivation for Napoleon's sale of Louisiana is generally attributed to his realization that Saint Domingue was lost to him (despite Jefferson's offer to help supply Leclerc's expeditionary force in its attempt to re-install slavery there), and thus that Louisiana's putative role as food supply for the much more profitable Caribbean island was mooted (the question of Napoleon's designs for a North American extension of his empire, with Louisiana as its base, is much more difficult to answer).

But at the same time that Jefferson bought Louisiana, he signed on with the British in attempting to suppress the Atlantic slave trade. Where would the slaves for Louisiana's sugar plantations-and the slaves for the cotton plantations of the Deep South, now made possible by the cotton gin-come from? Why, from Jefferson's home state of Virginia, among other sources for the internal slave trade. Here we find yet another multiplicity, in which physiology and psychology intersect work and climate, thus determining the reproduction rates for African slaves: negative in most parts of the Americas, but positive in the Chesapeake region. Sugar production in the Caribbean meant overwork (dawn to dusk during planting, around the clock during harvest and processing of the cane, and year long, as tropical climate allowed multiple growing seasons per year). Such overwork, along with the additional factors of bad nutrition, heat, disease, and torture, explain the life expectancy of seven years in the Caribbean after arrival (Blackburn, 1997)—meaning a slave owner's punitive sale of slaves to the Caribbean had a clear disciplinary intent, as clear as if he had killed the slave outright. This low life expectancy necessitated a constant importation of "fresh" slaves to make up for the low birth rates and high infant mortality rates-the children died from disease and from the infanticide slaves practiced sometimes to spare their children. The reproduction rate of the slave population was positive in the Chesapeake region because of the multiplicity governing tobacco production, linking the energy expenditure of the workers (linked to the singularities of the tobacco plant: its size, the angles of its stems and leaves, and so on) and the relatively moderate climate, which reduced growing seasons, allowed the winter as a period of recuperation, and eliminated the threat of tropical disease. The ancestors of the current African-American population of Louisiana came from the Caribbean, directly from Africa (mostly from Senegal), and from the northern states.

One of the things the Caribbean arrivals brought with them was revolution, the hope of it among the slaves and the fear of it among the whites. After the 1729 Natchez Rebellion, the most famous episode in Louisiana colonial history is the 1795 Pointe Coupee slave "revolt," Hall (1995) tells the fascinating story of how this Jacobin-inspired multiracial class revolt occurred at the most radical point of the French Revolution. when the National Assembly had recognized the fait accompli of the Saint Domingue revolt by abolishing colonial slavery, and when Renublican troops fought all the royal powers of Europe, including the Spanish who owned Louisiana at the time. A conspiracy that included many revolutionary poor whites, it aimed at the propertied interests, rather than at "whites," but it subsequently became mythologized as a race war of black against white. Unleashing a wave of racial oppression. the Pointe Coupee conspiracy became the bogey that put the fear of a racially motivated slave revolt directly into the bodies of white Louisianans. Scared as children with tales of the hoped-for savage reprisals for slavery exacted by rebellious black savages, with murder, looting, and rape prominent among them, a panic threshold is established, triggered at the thought or sight of crowds of blacks without sufficient armed quards around them. This bit of political physiology will play a role as well in the Katrina aftermath, exacerbated no doubt by the securitarian phobias of post-9/11 America.

#### The Wind and the Sea

But first, let us discuss the wind and the sea. We have talked about the Trade Winds, and about the meteorological multiplicity formed by the global heat-exchange system. The Northeast Trade Winds, blowing northeast to southwest off the coast of Africa, tend to converge at certain points, triggering singularities and forming turbulences associated with the instability and displacement of these winds in the movement north and south of the Intertropical Convergence Zone or ITCZ. With the proper ocean temperatures (above 80 degrees) and wind speeds, we can get "tropical waves," or groups of thunderstorms. At other singular points of wind speed and water temperatures, a cyclonic heat engine will be actualized, spinning counter-clockwise in the Northern Hemisphere, and a hurricane will be formed. Ocean water evaporates and rises out of a "chimney," releasing energy as it condenses aloft, powering winds and forming bands of thunderstorms. In effect, part of the ocean rises into the air and falls back as rain, while part of the ocean is pushed along by the storm's winds, the famous "storm surge." While most hurricanes form off the West African coast, Katrina formed to the east of the Bahamas. Crossing Florida, it hit upon the Gulf "loop current," a deep hot

water current that flows to the west through the Yucatan channel, then north through the Gulf until it exits to the east through the Florida channel to join the Gulf Stream. In its current configuration, the loop current brought Katrina not only a vector aiming it at New Orleans, but also huge amounts of energy, for it conserved the energy contribution of the evaporation rate of the 90-degree surface water, as the deep water churned to the surface by the passage of the hurricane was not as cold as it would have been for a hurricane not following the vector of the loop current. As it happens, a late singularity in metrological conditions caused Katrina to swerve a bit and pass to the east of New Orleans, thus sparing the city the worst winds (in the northeast quadrant for Northern Hemisphere hurricanes, which spin counterclockwise due to the Coriolis effect), but devastating Slidell and the Mississippi coast.

Katrina hit the eroded Louisiana coast, its still strong winds pushing its storm surge into Lake Ponchatrain and destroying some of the floodwalls and levees along New Orleans' canals. Since a hurricane loses three to eight inches of storm surge for every mile of barrier islands and coastal wetlands it crosses, the Louisiana coastline of one hundred years ago would have weakened Katrina enough that the current lake and canal levees of New Orleans would have held. But the eroded coastline let the storm surge through, and the faulty levees collapsed, rather than being "overtopped." The city was flooded, as predicted. At which point, we have to discuss the "man-made disaster."

#### Hobbes and the People of New Orleans

The government reaction at local, state, and national levels must be seen in historical context. Louisiana was a slave state, and it is now ranked the forty-ninth poorest state in the Union on many measures. (This is not to imply that slavery's economic and political impact was limited to the South. For just a sample of the political importance, beyond the infamous "three-fifths clause" of the Constitution, consider that ten of the pre-Civil War Presidents of the United States were slave-holders, as well as two post-war who had been slave-holders-a ratio that means that to date, one guarter of the Presidents in US history were slave-holders. The role of slavery in the global and national economies outside the slave zones, especially as it impacted the capital formation of the "Industrial Revolution," was also profound. [Bailey, 1998].) Thirty-five percent of its population is African-American. This figure is higher in cities, which, following the American pattern, surrounds mostly black cities with mostly white suburbs. The pattern of white flight, sparked by post-WWII suburbanization, is of course another multiplicity, as racial, income, and wealth population differentials cross automobile ownership rates. This

was famously demonstrated in New Orleans, a city with sixty-seven nercent African-American population, and a twenty-three percent poverty rate (national average is 12.7%), a large percentage of whom did not have cars. While eighty percent of the city evacuated, those who stayed hehind, or who were left behind, tended to be black. But not all: the French Quarter, ninety-five percent white and located on the natural levee where Bienville started the city, and Uptown, along the same levee westward along the river, had many whites who stayed behind. While the startling images of the Superdome and the Convention Center dominated media coverage, one of the most important untold stories unfolds along the geographical and social differential in which money stays on high ground in New Orleans. In Uptown, the private security companies ("Blackwater USA"), with their M-16s and their retired Special Ops forces, their helicopters and guard dogs, created an enclave of the protected who avoided media attention (Scahill, 2005), except for the ever-vigilant Wall Street Journal, which reported the plans of those civic leaders to effect "demographic" changes in the city to be rebuilt (Cooper, 2005).

But let us now discuss the famous sites, the Superdome and the Convention Center. The name of Hobbes sprang from the keyboards of the commentators as they heard the breathlessly reported rumors of savagery (murder, looting, and rapes) and the repeated twenty second loops of "looters" (you must recognize them by now: the woman holding up the Pampers to shield her face from the cameras, the teenage boy skipping through the puddles with his shopping cart). A "state of nature," they wrote, a "war of all against all," they assured us (Ash, 2005; Lowry, 2005; Will, 2005). But what were the contents of those rumors? A "revolt" at the Orleans Parish Prison. Children gang-raped and thrown, throats slit, into the freezer at the Convention Center. "Snipers" shooting at rescue helicopters. A "lockdown" of downtown after a "riot" in Baton Rouge following the arrival of refugees. All these rumors were unfounded and their similarity to rumors in panics about slave revolt cannot be ignored (Dwyer and Drew, 2005).

We will have to await the results of patient historical work to know what "really happened" in New Orleans. What we can say now with confidence in comparing eyewitness testimony, taking into account the widely documented production of rumor and exaggeration in crisis situations, is this: there were at most a few score gang members at the two sites engaging in predatory behavior. But we have to balance these stories against the small number of bodies found at the two sites. According to the *New York Times* report cited above, "state officials have said that 10 people died at the Superdome and 24 died around the convention center—4 inside and 20 nearby. While autopsies have not been completed, so far only one person appears to have died from

aunshot wounds at each facility." While rumors of rapes abounded police active in the Superdome found little to back them up. Again according to the New York Times, "During six days when the Superdome was used as a shelter, the head of the New Orleans Police Department's sex crimes unit, Lt. David Benelli, said he and his officers lived inside the dome and ran down every rumor of rape or atrocity. In the end, they made two arrests for attempted sexual assault, and concluded that the other attacks had not happened." (It is true that the NOPD is, by general acclaim, probably the worst police department in the country: underpaid undertrained, overly corrupt, homicidal, and fratricidal. They would be motivated to cover up violence at the Convention Center and Superdome so they could claim that guarding the French Quarter antique shops instead of the people in the shelters did not really hurt anyone. Still, to propose a conspiratorial coverup here is more than far-fetched, since many government agencies, not just the NOPD, would have to have been involved. What were far-fetched in the first place were the rumors of mass rape and carnage.)

At the most, we would have stories of a few groups of ten to fifteen young men who hunted other gang members, robbed people, raped women. What can we say about this predation? The first thing to say is that it does not indicate a "reversion" to a "state of nature," for gang members prey on people in these ways in every city of the country and most cities of human history. For gang predation is not some "natural" state into which societies "fall," but a social process that is part and parcel of civilization as we have known it. All the way back to Achilles and the Myrmidons, young men have formed roving predatory gangs that prey on urbanized populations. The relation of such gang-formation processes to urban population density forms another multiplicity to be explored; in New Orleans, gang-formation tends to follow the pattern of housing projects. The few reported murders during the Katrina aftermath can most plausibly be related to either spontaneous fights or gang members running into each other off their favored territories. Encounters during such episodes of deterritorialization would presumably carry with them high probabilities of violence.

But let us not forget this eyewitness testimony, for it shows that not all gangs were predatory. Denise Moore related the following on the "This American Life" radio program:

[Interviewer: Tell me about the men roaming with guns.] They were securing the area. Criminals, these guys were criminals. They were. Y'know? But somehow these guys got together and figured out who had guns and decided they were going to make sure that no women were getting raped. Because we did hear about the women getting raped in the Superdome. That nobody was hurting babies. They were the ones getting juice for the babies.... They were the ones fanning the old people. Because that's what moved the guys, the gangster guys, the most, the plight of the old people.

[Concerning the looting of the Rite-Aid at St. Charles and Napoleon:] They were taking juice for the babies, water, beer for the older people [chuckles], food. Raincoats so they could all be seen by each other and stuff.... I thought it was pretty cool and very well organized.

[Interviewer: Like Robin Hood?] Exactly like Robin Hood. And that's why I got so mad, because they're calling *these* guys animals? *These* guys? That's what got me mad. Because I know what they did. You're calling *these* people animals? Y'know? C'mon. I saw what they did, and I was really touched by it and I liked the way they were organized about it, and that they were thoughtful about it. Because they had family they couldn't find too. Y'know. And that they would put themselves out like that on other people's behalf. I never had a high opinion of thugs myself, but I tell you one thing, I'll never look at them the same way again (Moore, 2005).

But while the predatory gangs, as opposed to the protective gangs, now had an especially concentrated population on which to prey, and a police force weakened by desertion and dispersed by the mayor to restore "law and order" (that is, guard the antique shops and restaurants of the French Quarter, the big hotels and Uptown residences being sufficiently guarded by their private security forces), we cannot forget the massive solidarity shown by the people of New Orleans. Why did the name of Hobbes come flying off the keyboards of our pundits, and not Rousseau or even Locke? Why the focus on the predation, which occurs everywhere, though admittedly with less intensity because of lower prey population density? What about the solidarity on display?

Do not get me wrong. Hobbes is a brilliant philosopher, a great philosopher. His ruthless materialism far outstrips the limited minds of the current crop of Hobbes-mongers; their incomprehension of Hobbes' relentless focus on material power means that they will produce howlers, like Lowry's decrying of "massive lawlessness" in New Orleans. This is absurd for someone decrying a lack of awareness of Hobbesian philosophy. For Hobbes is crystal clear that while the sovereign has no obligation to the people, the people in turn have no obligation to a failed sovereign. The sovereign's actions are constantly judged by the people, and when the sovereign's power fails, then civil law lapses and the laws

of nature are the only ones in operation. We can read this in several of the most prominent and important parts of Leviathan. For instance, in Chapter 17, "Of the Causes, Generation, and Definition of a Common-Wealth," we find the following: "if there be no Power erected, or not areat enough for our security; every man will, and may lawfully [by the 'laws of nature'] rely on his own strength and art, for caution against all other men." In Chapter 21, "Of the Liberty of Subjects," we read: "The Obligation of Subjects to the Sovereign, is understood to last as long. and no longer, than the power lasteth, by which he is able to protect them. For the right men have by Nature to protect themselves, when no one else can protect them, can by no Covenant be relinquished." Finally, in Chapter 27, "Of Crimes, Excuses, and Extenuations," the following rings out as clear as a bell: "That when the Sovereign Power ceaseth, Crime also ceaseth; for where there is no such Power, there is no protection to be had from the Law; and therefore every one may protect himself by his own power." Thus, Lowry is so far from understanding Hobbes that what he will see as the "massive lawlessness" of New Orleans, the taking of goods when sovereign power has failed. is completely obedient to the law of nature.

Despite Hobbes' brilliance, the anthropological worth of his state of nature thought experiment is next to nothing, for the atomization he predicts in crisis situation is belied by the massive evidence of spontaneous group formation: with family kernels, of course, but also by neighborhood, and also, notably, simply by civic and human affiliation. ("My people" is how Jabbar Gibson described the group of neighbors and strangers he gathered on his commandeered bus.) Hobbes will acknowledge the possibility of temporary alliances in the state of nature, as in this passage from Leviathan Chapter 13, "On the Natural Condition of Mankind," where he writes: "if one plant, sow, build, or possesse a convenient Seat, others may probably be expected to come prepared with forces united." While people can form temporary alliances in the state of nature, they will not be able to form durable political units, if these fall short of the absolute sovereign. Time scales are the key here: the longer the state of nature goes on (and Hobbes is equally concerned with competition for honor in the state of nature and with competition for material goods) the more the atomizing forces take hold.

The stories of New Orleans that we tell do not always have to focus on the every man for himself fantasy of the Hobbes-mongers, nor on the panicky rumors with their echoes of the fear of slave revolt, but should also be the stories of the thousands of brave and loving people of New Orleans who refused to leave their old, their sick, their young, their helpless, and who walked miles through the floods to safety, pushing wheelchairs and floating the sick on "looted" air mattresses. Yes, we saw images of helpless poor people waiting to be rescued at the Superdome and the Convention Center, but we should never forget that they rescued themselves prior to that, through heroic solidarity, through what we cannot be afraid to call "love" (in the sense of *philia*, for Aristotle the emotional concretion of the political nature of humanity).

How can we give a rigorous differential materialist reading of this *philia*, this solidarity? After all, we should not want to be mere Rousseaumongers in response to the Hobbes-mongers. The question is that of the emergence of human groups. Emergence is the (diachronic) construction of functional structures in complex systems that achieve a (synchronic) focus of systematic behavior as they constrain the behavior of individual components. Theories of social emergence compete with methodological individualism, which denies that social phenomena are anything but the aggregation of individual behaviors. It is important to note that methodological individualism is far more than a "theory": it is the guiding principle behind the active construction of the atomizing practices whose results are described as natural by Hobbes and his followers (Schwartz et al, 1979).

To piece together the multiplicity behind social group emergence, we could begin by tracking the development of infantile face-recognition and emotional sensitivity, which inscribe brain patterns as they develop in feedback loops with caregivers (Hendriks-Jansen, 1996). Here we see that sociality is inscribed in our very bodies, as the actualization of the set of linked rates of change and their singularities lying between the reciprocally determined ideal elements of "infant" and "caregiver." (Since such "caregivers" are enmeshed in a historically mediated web of social relations, we should not fall for any sort of "familialism" in thinking these terms.) Such early bonding is of course a repetition of bondings that stretch back throughout human and primate history (De Waal, 1996). As would be expected with complex systems in populations, not all bondings "take" of course, either from caregiver absence or neglect, or from difficulties on the side of the infant. Later appearing trauma can also interrupt or destroy previously established bondings (Niehoff, 1999). Nonetheless, many bondings do take, and the neurological basis of these bondings, as with all brain activity, is found first in resonant cell assemblies, which form out of a chaotic firing background in a modular but decentralized network (Thompson and Varela, 2001). In these patterns of brain activity we could isolate what have been called "mirror neurons," whose link to what is experienced and described as empathy is a fascinating research frontier (Gallese, 2001). The bondings formed through mirror neuron activity would be reinforced at another level of activity by corporeal entrainment, which also plays a key role in producing group solidarity (McNeill, 1995).

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Of course, not all group formation is of the sort we are looking for in explaining the solidarity in New Orleans. We have to distinguish between the passive affects of subjected groups and the active affects of groupsubjects. Subjected groups are swept into a homogeneous mass whose unity is imposed by a transcendent signifier, like a flag. Being taken un out of yourself to join a larger unit can be a hugely powerful emotional experience. We can even call it "erotic" if we remember that this notion of eros is wider than that of sexual union. The symbol of a subjected group is a trigger that evokes that feeling of transport into a larger whole. The rage felt when the signifier is disrespected is directly related to the joy in erotic transport into the group, and that joy is inversely related to the pain felt in being subjected to atomizing practices: the sort of everyday isolation and its concomitant feeling of powerlessness that is well-attested to in America. Imagine the power of the emotions we call "patriotism" then: the larger and more powerful the political unit you belong to, and the weaker and more isolated you feel on your own, the stronger the emotional surge, the more sacred the symbols. We can then say that the keepers of those symbols have a vested interest in increasing your pain in isolation in order to increase the power they get from controlling the keys to your joy in union. An empire of isolated and powerless citizens would be a powerful and dangerous beast indeed.

On the other hand, we must think the joy of the active group-subject, the immanently self-organized spontaneous group formation we saw in New Orleans and elsewhere. For that solidarity was not just demonstrated among the people of New Orleans, but among many of the people of Louisiana. Alongside the brave men and women of the Coast Guard and the Louisiana Department of Wildlife and Fisheries, let us not forget the hundreds of volunteer rescuers who came down to New Orleans in their trucks and their boats, pulled somehow by that solidarity to rescue stranger. These rescuers, though able to work the first few days on their own, were eventually refused entry to the area by FEMA, which gave us the worst of all possible governmental responses: not only did they not do it themselves, they refused to get out of the way and let the volunteers do the work. For two reasons: one, the securitarian/racist panic of thousands of blacks together without enough police; and two, because—and here we are at the limit of paranoia, but indulge me—they ideologically want government to fail.

Here we see some of the political consequences of the neo-liberal denial of the very truth of solidarity (and hence government as expression of solidarity) and consequent production of atomized behavior (and hence government as transcendent source of order against anarchy). For you can also do the inverse, strain solidarity and increase atomization, via scarcity—in some situation, for after all, you can also increase solidarity via scarcity. Scarcity is an intensifier of underlying processes, a catalyst. Scarcity is produced, let us not forget, according to a multiplicity whose elements are rich and poor people, "good" and "bad" neighborhoods. Scarcity is produced so that poverty is actualized along the social-geographical differential relation of access to goods, a differential enforced by the police at the singularities of entry points to privileged neighborhoods and bridges to cities across the river. During the post-Katrina weakening of the police presence, we then saw four types of "looting" actualized from this multiplicity: 1. getting necessities of life: food, water, medicine, diapers; 2. taking of non-necessities for future use or resale (one of the things our Hobbes-mongers underplay is that along with the tolerated looting of the first type, the second type cannot be condemned, for there is no crime in the state of nature, only private judgment as to what is necessary to secure the future); 3, revenge against the rich (you've taunted me with your fancy goods my whole life, so I'll wreck them so you won't have them either); 4. nihilistic rage (you've left me to die, so fuck you, I'm burning it all down).

The political lesson is not that we need order from above to prevent the anarchy that is supposedly close by, but that the solidarity that holds almost all of us together, the civic and human bonds that led all those thousands to stick together, and led those hundreds of volunteers to head to New Orleans, needs only support from a government which instead of being systematically dismantled and artificially rendered inadequate so that it can be, in the now horribly ironic words of Grover Norquist, "drowned in a bathtub"—needs to be recalled to its proper function as the organized expression of that solidarity.<sup>1</sup>

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### Note

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