

## CHAPTER 35: INSTITUTIONALIZED SELFISHNESS

1. Stiglitz, J., *The Price of Inequality*, Kindle location, 205.
2. Oreskes, N., & Conway, E. M. M., *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming*, Bloomsbury Press, 2011. See also Hoggan, J., *Climate Cover-up: The Crusade to Deny Global Warming*, Greystone Books, 2009. As well as Pooley, E., *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth*, Hyperion, 2010.
3. Fred Seitz notably directed a program for the R. J. Reynold Tobacco Company that, from 1979 to 1985, distributed 45 million dollars

- (equivalent to \$98 million today) to compliant researchers to carry out studies that could be used in the courts to defend the harmlessness of tobacco. Oreskes, N., & Conway, E. M. M. (2011). *Op. cit.*, p. 6.
4. Lahsen, M. (2008). Experiences of modernity in the greenhouse: A cultural analysis of a physicist “trio” supporting the backlash against global warming. *Global Environmental Change*, 18(1), 204–219. Quoted in Oreskes, N., & Conway, E. M. M. (2011). *Op. cit.*, p. 6.
  5. Singer, S. F. (1989). My adventures in the ozone layer. *National Review*, 30. Quoted in Oreskes, N., & Conway, E. M. M. (2011). *Op. cit.*, p. 249.
  6. Wynder, E. L., Graham, E. A., & Croninger, A. B. (1953). Experimental production of carcinoma with cigarette tar. *Cancer Research*, 13(12), 855–864. Quoted in Oreskes, N., & Conway, E. M. M. (2011). *Op. cit.*, p. 15.
  7. American Tobacco, Benson and Hedges, Philip Morris, and U.S. Tobacco.
  8. United States of America vs. Philips Morris, R. J. Reynolds, *et. al.* (1999), p. 3. Quoted in Oreskes, N., & Conway, E. M. M. (2011). *Op. cit.*, p. 15 and note 24, p. 282.
  9. In 1957, for example, one of these pamphlets, entitled “Smoking and Health,” was distributed to 350,000 doctors. Tobacco Industry Research Committee: BN2012002363. Legacy Tobacco Document Library. Another pamphlet, published in 1993 for internal circulation in the tobacco industry and entitled *Bad Science: A Resource Book*, contained a mine of information on the most effective ways to fight and discredit scientific researches demonstrating the harmful effects of tobacco, as well as an address book of researchers and journalists sympathetic to the cause and who could be recruited. *Bad Science: A Resource Book*. Quoted in Oreskes, N., & Conway, E. M. M. (2011). *Op. cit.*, pp. 6 and 20.
  10. Oreskes, N., & Conway, E. M. M. (2011). *Op. cit.*, p. 34.
  11. Michaels, D., *Doubt Is Their Product: How Industry’s Assault on Science Threatens Your Health*, Oxford University Press, 2008.
  12. Schuman, L. M. (1981). The origins of the Report of the Advisory Committee on Smoking and Health to the Surgeon General. *Journal of Public Health Policy*, 2(1), 19–27. Quoted in Oreskes, N., & Conway, E. M. M. (2011). *Op. cit.*, pp. 21–22.
  13. Tobacco smoke contains 4,000 different chemical substances, 60 of which are carcinogenic. The smoke that escapes laterally from the cigarette contains seven times more benzene, seventy times more nitrosamines, and a hundred times more ammonia than smoke inhaled or exhaled by the smoker.

14. According to the data and references gathered by Wikipedia: [http://en.wikipedia.org/wiki/Passive\\_smoking](http://en.wikipedia.org/wiki/Passive_smoking).
15. Hirayama, T. (1981). Passive smoking and lung cancer. *British Medical Journal* (Clinical research ed.), 282(6273), 1393–1394. Before that, the first major study goes back to 1980. Involving over 2,100 people and published in England, it demonstrated that non-smokers working in offices where their colleagues smoked manifested the same alterations in their lungs as light smokers. This study was abundantly criticized by scientists, all of whom had ties with the tobacco industry. For a recent study, see Öberg, M., Jaakkola, M. S., Woodward, A., Peruga, A., & Prüss-Ustün, A. (2011). Worldwide burden of disease from exposure to second-hand smoke: A retrospective analysis of data from 192 countries. *Lancet*, 377(9760), 139–146.
16. Glanz, S. A., *The Cigarette Papers Online Wall of History*, UCSF, 2004.
17. Non-Smokers' Rights Association. The Fraser Institute: Economic Thinktank or Front for the Tobacco Industry? April 1999. Quoted in Oreskes, N., & Conway, E. M. M. (2011). *Op. cit.*, p. 140.
18. Quoted in Oreskes, N., & Conway, E. M. M. (2011). *Op. cit.*, p. 242; note 6, p. 335.
19. That is how the journals *Tobacco and Health* and *Science Fortnightly*, to cite only those two, in the case of tobacco, were created. The same methods were used for climate studies. Other articles were formatted exactly like those in the PNAS (Proceedings of the National Academy of Sciences) and distributed to all the media, even though they were neither published nor submitted to a scientific journal. Oreskes, N., & Conway, E. M. M. (2011). *Op. cit.*, p. 244.
20. Associated Press, November 27, 2012.
21. WHO. Fact sheet no. 339, May 2012: <http://www.who.int/mediacentre/factsheets/fs339/en/>.
22. Not counting the cases of bronchitis and pneumonia among young children, along with an increase of asthma among millions of children. Britton, J., & Godfrey, F. (2006). Lifting the smokescreen. *European Respiratory Journal*, 27(5), 871–873. The report presented to the European Parliament is available on the site [www.ersnet.org](http://www.ersnet.org).
23. Glantz, S. A., & Parmley, W. W. (2001). Even a little secondhand smoke is dangerous. *JAMA*, 286(4), 462–463.
24. L'Asie fume à pleins poumons. *GEO*, October 2011, 292, p. 102.
25. WHO. Fact sheet No. 339, May 2012.
26. *Ibid.*
27. Oreskes, N., & Conway, E. M. M. (2011). *Op. cit.*, p. 241.

28. West, R. (2006). Tobacco control: Present and future. *British Medical Bulletin*, 77–78(1), 123–136.
29. Oreskes, N., & Conway, E. M. M. (2011). *Op. cit.*, p. 171 and note 9, p. 320.
30. A group that nicknamed itself the “Jasons” and was mainly composed of physicists, then a commission directed by Jule Charney, an MIT professor.
31. *Ibid.*, p. 174, note 20 and p. 321.
32. The pdf report with numbers and detailed attributions can be downloaded at the Greenpeace site: <http://www.greenpeace.org/usa/en/campaigns/global-warming-and-energy/polluterwatch/koch-industries/>.
33. Mooney, C., *The Republican War on Science*, Basic Books, 2006. In the investigative journal *Mother Jones*, May–June 2005. <http://www.motherjones.com/environment/2005/05/some-it-hot>.
34. Wijkman, A., & Rockström, J., *Bankrupting Nature: Denying Our Planetary Boundaries*, Routledge, 2013, p. 96.
35. Santer, B. D., Taylor, K. E., Wigley, T. M. L., Johns, T. C., Jones, P. D., Karoly, D. J.,... Ramaswamy, V. (1996). A search for human influences on the thermal structure of the atmosphere. *Nature*, 382(6586), 39–46.
36. Seitz, F. A major deception on global warming. *Wall Street Journal*, June 26, 1996. Quoted in Oreskes, N., & Conway, E. M. M. (2011). *Op. cit.*, p. 3.
37. Statement made on March 14, 2002. <http://www.msnbc.msn.com/id/26315908/>.
38. Statement made on January 4, 2005. <http://inchofe.senate.gov/pressreleases/climateupdate.htm>.
39. Statement made on July 28, 2003. <http://inchofe.senate.gov/pressreleases/climate.htm>.
40. Michele Bachmann assured us that CO<sub>2</sub> emissions are harmless. Herman Cain, one of the last candidates, spoke of the “myth” of global warming, and Rick Perry, governor of Texas, also denounced a “hoax” perpetrated by scientists in need of subventions. Those were the same candidates who also want to ban teaching the theory of evolution in schools and teach “creationism” instead. Mitt Romney finally echoed their voices under the pressure of extreme-right-wing Republicans.
41. Survey carried out by ABC News.
42. Goldacre, B., *Bad Pharma: How Drug Companies Mislead Doctors and Harm Patients*, Fourth Estate, 2012.

43. Gøtzsche, P. C., Hróbjartsson, A., Johansen, H. K., Haahr, M. T., Altman, D. G., & Chan, A. W. (2006). Constraints on publication rights in industry-initiated clinical trials. *JAMA*, 295(14), 1645–1646. Quoted in Goldacre, B. (2012). *Op. cit.*, p. 38. A survey also shows that 90% of subjects and patients who volunteer for these medical tests think their participation is an important contribution to society, whereas pharmaceutical companies refuse to make their research data public: Wendler, D., Krohmal, B., Emanuel, E. J., & Grady, C. (2008). Why patients continue to participate in clinical research. *Archives of Internal Medicine*, 168(12), 1294. Quoted in Goldacre, B. (2012). *Op. cit.*, p. 43.
44. Doshi, P. (2009). Neuraminidase inhibitors—the story behind the Cochrane review. *BMJ*, 339. Quoted in Goldacre, B. (2012). *Op. cit.*, p. 365.
45. Godlee, F. (2012). Open letter to Roche about oseltamivir trial data. *BMJ*, 345.
46. Medicines and Healthcare Products Regulatory Agency (MHRA). [www.mhra.gov.uk](http://www.mhra.gov.uk). GSK investigation concludes. <http://www.mhra.gov.uk/Howweregulate/Medicines/Medicinesregulatorynews/index.htm>. Between 1994 and 2002, GSK led nine series of tests on the effects of paroxetine on children that showed that the medication was effective to treat depression among children, but that also revealed harmful side effects. GSK cleverly and knowingly used a legal loophole. The makers are not required to declare undesirable, even serious, effects, of a medication except for specific uses (“usage for adults,” for example) for which it received an authorization to market the product. GSK knew the medication was prescribed for children, and it also knew that there were safety problems for these children, but it chose not to reveal this information. Goldacre, B. (2012). *Op. cit.*, p. 58.
47. Juni, P., Nartey, L., Reichenbach, S., Sterchi, R., Dieppe, P., & Egger, M. (2004). Risk of cardiovascular events and rofecoxib: Cumulative meta-analysis. *Lancet*, 364(9450), 2021–2029. See also *Rédaction* (2005). Comment éviter les prochaines affaires Vioxx. *Prescrire* (2005), 25(259), 222–225.
48. Psaty, B. M., & Kronmal, R. A. (2008). Reporting mortality findings in trials of rofecoxib for Alzheimer disease or cognitive impairment. *JAMA*, 299(15), 1813–1817; Le célécoxib encore sur le marché: au profit de qui? *Rescrire* (2005), 25(263), 512–513.
49. *Prescrire* (2009), 29(303), 57.
50. In 2004, for example, the International Committee of Medical Journal Editors (ICMJE) announced that starting from 2005, none of them

- would publish clinical trials, unless they were correctly registered before their execution (so that one could follow the results of these tests). The problem seemed solved, but everything continued the same as before. The editors didn't put their threats into action, probably due to the financial revenue, amounting to millions of dollars, that these same editors obtain when they publish tens of thousands of offprints from pharmaceutical industry publications. De Angelis, C., Drazen, J. M., Frizelle, P. F. A., Haug, C., Hoey, J., Horton, R.,... Overbeke, A. J. P. M. (2004). Clinical trial registration: A statement from the International Committee of Medical Journal Editors. *New England Journal of Medicine*, 351(12), 1250–1251. Goldacre, B. (2012). *Op. cit.*, p. 51.
51. Goldacre, B. (2012). *Op. cit.*, p. 71.
  52. *Ibid.*, p. 72.
  53. *Ibid.*, p. 51–52.
  54. Gagnon, M. A., & Lexchin, J. (2008). The cost of pushing pills: a new estimate of pharmaceutical promotion expenditures in the United States. *PLoS Medicine*, 5(1), e1. For national GDP values, see <http://www.indexmundi.com/>.
  55. Heimans, L., Van Hylckama Vlieg, A., & Dekker, F. W. (2010). Are claims of advertisements in medical journals supported by RCTs? *Neth. J. Med.*, 68, 46–9.
  56. Fugh-Berman, A., Alladin, K., & Chow, J. (2006). Advertising in medical journals: Should current practices change? *PLoS Medicine*, 3(6), e130. Goldacre, B. (2012). *Op. cit.*, p. 305. A recent study in the United States revealed that 60% of hospital department managers received money from the industry to work in its favor as consultants, lecturers, members of advisory councils, etc. Campbell, E. G., Weissman, J. S., Ehringhaus, S., Rao, S. R., Moy, B., Feibelman, S., & Goold, S. D. (2007). Institutional academic-industry relationships. *JAMA*, 298(15), 1779–1786. Altogether, 17,700 doctors received money, for a total of 750 million dollars, from AstraZeneca, Pfizer, GSK, Merck, and many others. 384 doctors received over \$100,000 each. See Goldacre, B. (2012). *Op. cit.*, p. 331. This information is available on the ProPublica site, <http://www.propublica.org/series/dollars-for-docs>.
  57. Fugh-Berman, A., & Ahari, S. (2007). Following the script: How drug reps make friends and influence doctors. *PLoS Medicine*, 4(4), e150.
  58. Orłowski, J. P., & Wateska, L. (1992). The effects of pharmaceutical firm enticements on physician prescribing patterns. There's no such thing as a free lunch. *Chest*, 102(1), 270–273.

59. Verispan, Wolters-Kluwer, and IMS Health. The latter company has data on two-thirds of all prescriptions registered in pharmacies
60. Stell, L. K. (2009). Drug reps off campus! Promoting professional purity by suppressing commercial speech. *Journal of Law, Medicine & Ethics*, 37(3), 431–443. See also Goldacre's interview on the site of the prestigious scientific journal *Nature*, September 28, 2012.
61. Hollis, A. (2004). Me-too drugs: Is there a problem? *WHO report*. In [http://cdrwww.who.int/entity/intellectualproperty/topics/ip/Me-tooDrugs\\_Hollis1.pdf](http://cdrwww.who.int/entity/intellectualproperty/topics/ip/Me-tooDrugs_Hollis1.pdf).
62. ALLHAT, Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial, which lasted for eight years, was conducted by the US Health Department.
63. Goldacre, B. (2012). *Op. cit.*, p. 149.
64. Helms, R., *Guinea Pig Zero: An Anthology of the Journal for Human Research Subjects*, Garrett County Press, 2006. See also the site <http://www.guineapigzero.com/>. Quoted in Goldacre, B. (2012). *Op. cit.*, p. 107.
65. PCB, commercialized by Monsanto under the name Aroclor in the United States, is a highly toxic chlorinated oil that was used as insulation in the electric and electronic industries, and that, in the presence of heat, gives off dioxin. Pyralène has been banned in France since 1987.
66. According to a declassified report, written in March 2005 by the Environmental Protection Agency, or EPA, for forty years, 810 tons of PCBs were poured into canals like Snow Creek and 32,000 tons of contaminated waste were dumped out in the open, on the site itself, in the heart of the neighborhood inhabited by the city's African-American community.
67. Robin, M.-M., *The World According to Monsanto*, The New Press, 2012, p. 16.
68. *Ibid.*, p. 18.
69. *Ibid.*
70. *Ibid.*
71. Regular exposure to these products can cause cancer, heart disease, diabetes, a lowering of the immune system, malfunctioning of the thyroid and of sexual hormones, reproductive disorders, and serious neurological disorders. Robin, M.-M. (2010). *Op. cit.*, Kindle location, p. 726 of the French edition.
72. Jensen, S. (1966). Report of a new chemical hazard. *New Scientist*, 32(612), 247–250.
73. Robin, M.-M. (2012). *Op. cit.*, p. 19.

74. [www.chemicalindustryarchives.org/dirtysecrets/annistonindepth/toxicity.asp](http://www.chemicalindustryarchives.org/dirtysecrets/annistonindepth/toxicity.asp). Quoted in Robin, M.-M. (2012). *Op. cit.*, p. 19.
75. Robin, M.-M. (2012). *Op. cit.*, p. 22.
76. *Ibid.*, location 685–686 of the French.
77. *Ibid.*, p. 27.
78. *Ibid.*, p. 26.
79. Monsanto's Pledge can be consulted on its website: <http://www.monsanto.com/whoweare/pages/monsanto-pledge.aspx>.
80. Agent Orange would also be manufactured by other firms like Dow Chemicals, a subsidiary of which, Union Carbide, would, in 1984, be responsible for the Bhopal catastrophe in India that officially killed 3,500 people, but that probably caused 20,000 or 25,000 deaths according to victims' associations. It is estimated that 80 million liters of defoliants were discharged over 3.3 million hectares of forests and land. 90% of the trees and bushes touched were destroyed within two years. Over 3,000 villages were contaminated, and 60% of the defoliants used were Agent Orange, containing the equivalent of 400 kilos of dioxins. According to WHO: "Dioxins are very toxic and can cause problems of reproduction and development, harm the immune system, interfere with the hormonal system, and cause cancer." Stelman, J. M., Stelman, S. D., Christian, R., Weber, T., & Tomasallo, C. (2003). The extent and patterns of usage of agent orange and other herbicides in Vietnam. *Nature*, 422(6933), 681–687. Quoted in Robin, M.-M. (2010). *Op. cit.*, Kindle location 8038–8040; Stelman, Jane Mager, The extent and patterns of usage of agent orange and other herbicides in Vietnam, *Nature*, April 17, 2003.
81. Monsanto's agent orange: The persistent ghost from the Vietnam war. Organic Consumers Association, 2002. <http://www.organicconsumers.org/monsanto/agentorange032102.cfm>; Dai, Le Cao, *et al.* A comparison of infant mortality rates between two Vietnamese villages sprayed by defoliants in wartime and one unsprayed village. *Chemosphere*, vol. 20, August 1990, pp. 1005–1012. Robin, M.-M. (2010). *Op. cit.*, Kindle location 8186.
82. Seven companies produced Agent Orange: Dow Chemicals, Monsanto, Diamond Shamrock, Hercules, T-H Agricultural & Nutrition, Thompson Chemicals, and Uniroyal. Robin, M.-M. (2010). *Op. cit.*, pp. 1280–1281.
83. Suskind, R. R. (1983). Long-term health effects of exposure to 2, 4, 5-T and/or its contaminants. *Chemosphere*, 12(4), 769.
84. Robin, M.-M. (2012). *Op. cit.*, p. 51.



85. Monsanto was warned, no one knows how, and its vice president wrote to the president of the scientific committee of the EPA to protest against the “highly provocative and erroneous information about the epidemiological studies concerning Monsanto’s West Virginia plant. . . . We are very disturbed by the false charges being made against Monsanto and Dr. Suskind.” Frustrated, Cate Jenkins sent the report to the press, which was outraged. Monsanto continued to intervene with the EPA to prevent the investigation from concluding and to have Jenkins penalized or even fired. She was finally transferred, and was subjected to harassment for years.
86. This list included various cancers (respiratory, prostate), including some very rare cancers like sarcoma of the soft tissue or non-Hodgkin’s lymphoma, but also leukemia, type 2 diabetes, peripheral neuropathy (from which Alan Gibson, the veteran I met, suffers), and chloracne.
87. Robin, M.-M. (2012). *Op. cit.*, Kindle location 1585 of the French.
88. Robin, M.-M. (2012). *Op. cit.*, p. 73.
89. Problems plague the EPA pesticide registration activities, US Congress, House of Representatives, House Report, 98–1147, 1984. Quoted in Robin, M.-M. (2012). *Op. cit.*, p. 337. See also the article in *New York Times*, March 2, 1991.
90. Canada: McDuffie, H. H., Pahwa, P., McLaughlin, J. R., Spinelli, J. J., Fincham, S., Dosman, J. A., . . . Choi, N. W. (2001). Non-Hodgkin’s lymphoma and specific pesticide exposures in men cross-Canada study of pesticides and health. *Cancer Epidemiology Biomarkers & Prevention*, 10(11), 1155–1163. Sweden: Hardell, L., Eriksson, M., & Nordström, M. (2002). Exposure to pesticides as risk factor for non-Hodgkin’s lymphoma and hairy cell leukemia: Pooled analysis of two Swedish case-control studies. *Leukemia & Lymphoma*, 43(5), 1043–1049. United States: De Roos, A. J., Blair, A., Rusiecki, J. A., Hoppin, J. A., Svec, M., Dosemeci, M., . . . Alavanja, M. C. (2005). Cancer incidence among glyphosate-exposed pesticide applicators in the Agricultural Health Study. *Environmental Health Perspectives*, 113(1), 49.
91. When Paul Berg then announced his intention of inserting a carcinogenic virus from a monkey into a cell of *Escherichia coli*, a bacterium that colonizes the human stomach and intestines, the scientific community was alarmed: “What will happen if, by accident, the organism being manipulated escapes from the laboratory?” wondered the geneticist Robert Pollack. A temporary moratorium on genetic manipulations was decreed. But it would not last, and genetic engineering experiments multiplied.

92. Robin, M.-M. (2012). *Op. cit.*, p. 203.
93. Other competitors also entered the fray to file the first patents on most of the main crops in the world: Calgene, a California start-up that had just successfully made tobacco resistant to glyphosate (the component of Roundup), Rhône-Poulenc, Hoechst, Dupont and Ciba-Geigy, and other giants of the chemical industry.
94. *CropChoice News*, November 16, 2003. Robin, M.-M. (2012). *Op. cit.*, p. 140.
95. Food and Drug Administration, "Statement of policy: Foods derived from new plant varieties," *Federal Register*, vol. 57, no. 104, May 29, 1992, p. 22983. Quoted in Robin, M.-M. (2012). *Op. cit.*, p. 145.
96. "The principle of substantial equivalence is an alibi with no scientific basis created out of thin air to prevent GMOs from being considered at least as food additives, and this enabled biotechnology companies to avoid the toxicological tests provided for in the Food, Drug, and Cosmetic Act and to avoid labeling their products." Robin, M.-M. (2012). *Op. cit.*, p. 147.
97. According to the 2007 Center for Food Safety report, Monsanto has a budget of \$10 million and a team of 75 people hired full-time to supervise and instigate legal proceedings against the farmers who use its products. As of June 2006, Monsanto had filed between 2,391 and 4,531 suits for "seed piracy" against farmers in 19 countries, obtaining from them between 85 and 160 million dollars.
98. Detoef, A., *Propos de O. L. Barenton, confiseur*, Éditions du Tambourinaire, 1962, p. 111.
99. According to [www.centerforfoodsafety.org](http://www.centerforfoodsafety.org).
100. Robin, M.-M. (2012). *Op. cit.*, p. 259.
101. *Ibid.*, location 6135 of the French.
102. *Ibid.*, p. 291.
103. Shiva, Vandana, From seeds of suicide to seeds of hope, *Huffington Post*, April 28, 2009.
104. Traditional varieties of cotton seeds are ready for harvesting after 150–160 days, unlike Bt varieties, which take 180–200 days. The use of these traditional seeds also reduces the need for fertilizers and pesticides.
105. Shiva, V. J., & Jalees, Kunwar, *Seeds of Suicide: The Ecological and Human Costs of Seed Monopolies and Globalisation of Agriculture*, Navdanya, 2006.
106. Chapelle, Sophie, *Journal des Alternatives*, November 5, 2012.
107. An offshoot of the CIG (Citizen Interest Group), this association includes Greenpeace, ATTAC, and Friends of the Earth.

108. “Agro-ecology and the right to food,” report presented by Olivier de Schutter to the UN Human Rights Council on March 8, 2011 in Geneva.