## Part II

**Macro-interactions** 

The chapters in Part II consider different kinds of *macro-interactions* by which we mean interactions which take place between states or which act at the global level of societies. What makes the study of macro-interactions comparatively easier than the study of inter-personal micro-interactions is the fact that they are strong, persistent and their effects are often clearly visible. On the contrary, micro-interactions are much weaker, mostly of shorter duration and their effects are often masked by those of macro-interactions.

The motivation and rationale for first studying macro-interactions can best be explained by way of a parallel with physics. It is well known that by sorting molecules according to their velocities, a device known as a Maxwell demon would be able to make a system work in violation of the second principle of thermodynamics. Naturally, it would be easy to imagine other kinds of Maxwell demons whose intervention would result in the violation of other physical laws. With such demons at work in our laboratories it would be impossible to study physical systems in a meaningful way, at least until their intervention could be identified and discounted. Fortunately, Maxwell demons do not exist in physics, but in the study of social phenomena we must indeed face this kind of difficulty. In our societies there are numerous Maxwell demons who distort and influence social phenomena; if for some reason they cannot tamper with the phenomena themselves, they will try to alter and misrepresent their historical accounts. Until we are able to identify and discount their influence it will be impossible to collect evidence in a meaningful way.

Surprisingly, there is little awareness among social scientists about these obstacles. More precisely, there is a misplaced perception. Often, social scientists think and suggest that their theories, statements and predictions may alter the behavior of social agents. In our opinion this effect has been largely overstated. In fact, the influence of theories on the behavior of social agents has rarely (if ever) been established<sup>1</sup>. On the contrary, we know as a fact that there are numerous organizations whose missions and objectives consist in acting as Maxwell demons. Among these groups one can mention intelligence agencies, public relation companies, think tanks, foundations or non-governmental organizations, sects, and so on. As some of these groups run on budgets of several billion dollars a year, it would be unrealistic to think that their action is negligible.

Of course, disinformation is nothing new, but the problem is of greater importance nowadays because the power of the medias has expanded considerably. The Jeffersonian ideal of an informed citizen as an indispensable ingredient of democracy is more and more challenged by an increasingly sophisticated opinion-molding apparatus. The forthcoming chapters provide instances of situations in which it was possible to identify and to some extent discount the influence of Maxwell demons. Although this can be done only in a few cases the broader objective is to draw the attention of social scientists to this issue.

<sup>&</sup>lt;sup>1</sup>A striking counter-example was provided by the NASDAQ bubble in the 1990s. For over a century, one of the best established empirical rule about stocks has been the fact that the ratio P/E=(price of a share)/(earnings per share) remained comprised between 10 and 25. In the late 1990s this ratio climbed to 200 but the buying spree continued unabated. Apparently, the "infectious greed" of investors as the Chairman of the Federal Reserve Alan Greenspan called it in 2002, was stronger than the laws of economics and the warnings of lucid economists.