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INDIVIDUALISM, COLLECTIVE AGENCY AND THE “MICRO-MACRO RELATION”

by Alban Bouvier

The significance of methodological individualism (MI) in social science is one of the most classical issues in the philosophy of social science. Nowadays it is customary to set it in opposition to methodological holism, although this expression (introduced by Watkins, 1952) is much less common than “holism”, which might be much more appropriate. This has replaced the notion of “collectivism”, which was sometimes used in the middle of the 20th century (O’Neill, 1973); but this notion was still much more misleading. Not only did it carry a possible political meaning but also because political concerns were really core elements of certain viewpoints (notably Popper, 1945 and Hayek, 1988), despite there being no logical link between the epistemological and the political issues.¹ I shall however leave aside here this political dimension.

I claim that what is at stake, generally speaking, when one speaks of “holism” is a complex and confused intuition that might not still have been completely exhausted by advocates of analytic methods, more than a specific methodology, but such that its specificity is constantly reduced as analytic methods are becoming more and more integrative.² Certain important issues are currently tackled without specific reference to the notion of holism (*a fortiori* collectivism), such as many debates on collective behavior, collective action, collective agency, collective intentionality, etc. However the main issues are basically the same: *to what extent is collective action proper understood not only (that means: is not reducible to) a mere sum of individual actions?* And how can collective action properly understood result or emerge from these individual actions? In this specific context, discussions are focused just on action and the dynamic aspects of social life more than discussions about holism are (those notably include an analysis of collective beliefs not specifically oriented towards action). In other words, the question is to know whether there is an *ontological* specificity of a certain kind of collective action compared to individual action, such that its account would require a proper concept: the concept of collective agency.

The treatment of this question has always been complicated by interferences with other (sometimes subtle) methodological and theoretical issues. For example, more and more frequently,

¹ See, for example, Lukes (1973).

² See Udehn (2002). I only refer to common uses of the term “holism”, not to very specific ones, such as Pettit’s (1993).

one speaks of “micro-macro mechanisms” (Hedström & Swedberg, 1998) to refer to the processes leading from individual to collective phenomena (in the various senses of “collective”) as if one was dealing with processes from micro-phenomena to macro-phenomena. Thus, in this context, “micro” and “macro” are implicitly identified respectively with “individual” and “collective”. But there is much confusion about the relation between individual and collective agency, on the one hand, and the notion of micro-macro relation, on the other. This latter opposition has also other, very different meanings. Thus, if two people are enough to constitute an elementary group (Simmel, 1971), dancing a tango is already a “collective action” (Gilbert, 1989) and could be said therefore, according to the previous criterion, to be a “macro-phenomenon” compared to a pure individual action, which would be a “micro-phenomenon”. In many cases, however, the distinction between micro and macro refers to a quite different criterion and only means a *difference of scale* between two objects, events, or processes, so that, according to this new criterion, dancing the tango with one’s partner or repainting one’s flat with her (Bratman’s favorite example, Bratman, 1999) would be micro-phenomena compared to macro-phenomena such as a riot (or a revolution) or the entire reconstruction of a town (or of a country) after a war. Similarly, when the branch of a company and a State act in a coherent way, their acts can be described as individual actions (as if they were indivisible), compared to the acts of a company or the acts of allied States (Coleman, 1990), described therefore as micro-phenomena according to the first criterion, although they are evident macro-phenomena according to the second. In a relation between objects of different scales, some of them may also be parts of others (a branch of a company / a company), but may also not be, as in cases when what is compared is a small-scale event (e.g. the assassination of the heir to the Austro-Hungarian throne at Sarajevo in 1914), with its possible large scale *consequences* (e.g. the First World War). Following this (difference of scale) criterion, it is sometimes useful to introduce (relative) intermediate levels of scales, notably when one deals at the same time with the relations between parts and whole. Thus, in a sociological case study on gangs in a city, it can be useful to distinguish between the town scale (macro), the gang scale (meso) and the gangsters scale (micro). This second distinction (micro/macro as a scale difference) is a priori very trivial but often not only interferes with the previous one (individual/collective), as in the latter example, but also is confused with it.

There is still a much more important difference between these first two conceptual distinctions and a third one. I shall focus here on the difference between the first and the third ones. Actually, in social science one often distinguishes, with good reasons, between *different levels of data*: the macro-level of statistical (aggregate) data (e.g. suicides rates), and the micro-level of individual behaviors (e.g. case studies of suicides). And one of the main issues in social science is to construct a bridge between these levels. Thus collective behaviors themselves (macro-phenomena according to the first criterion) can be investigated either at the macro-level (e.g. statistics on the frequency of “macro-

phenomena” such as riots in a modern city) or at the micro-level (e.g. case studies of certain riots, therefore still “macro-phenomena”, according to the same criteria).³ Reciprocally, all the aggregate or macro-level data (statistics) do not deal with collective or macro-phenomena; thus, most suicides are individual and not collective: the macro-level data regarding suicides deals mainly with micro-phenomena regarding the first criterion, so that there is also a “micro-macro relation” issue (or a “macro-micro relation” issue, depending the way of investigation chosen) between levels of data. And this issue, regarding the relation between levels of data, unlike the previous ones (namely, the relation between individual behaviors and collective behaviors, on the one hand, and between different scales on the other), is not ontological but only *epistemic*: a “collection” of suicides distributed in a region, as statistics can display, has exactly the same extension as the mere addition of all the suicides in this region and it is not a collective suicide in any sense; and the statistical collection of all Protestants distributed in Europa compared to other affiliation collections is just the addition of all these Protestants, not a Protestant community.

As I said, however, these three meanings are very often confused when one speaks of MI, especially the first and the third.⁴ It happened, I contend, primarily because, as Little (1994) said, the debate for a long time has been held in places far away from what social sciences actually do, by importation from issues coming from the philosophy of language, philosophy of logic or metaphysics (and not even from the philosophy of physics and biology, which anyway have been for long also dominated by these domains). On the contrary, I shall try to remain as close as possible to the discussions internal to the social sciences, covering work that runs the gamut from the historical to the contemporary. To summarize the main point of this introduction: is MI a way of taking account of collective agency by coming down to its individual components, a way of explaining certain large-scale phenomena by coming down to smaller scale phenomena, or a way of taking account of macro-level data by coming down to micro-level phenomena? Actually, it should be all three if it is true that *the sole distinctive principle of MI is to systematically pursue the collective concepts and clarify their use (therefore hunt out their misuses)* to avoid the introduction of pseudo-entities in the explanation of social facts.

In this chapter, I shall analyze very progressively and in succession the different meanings of the concept of “micro-macro” relation and shall restrict as much as possible the content of the concept of collective agency properly understood, which I shall reach at the very end of this chapter, introducing intermediate comments on related issues (such as the notion of macro-macro relation or

³ I use “collective behavior” in a more general and neutral sense than its usual sense in sociology (Blumer, 1952), restricted to *not planned* social processes such as riots.

⁴ Watkins (1957) typically does not care for these distinctions. As Watkins was often considered as expanding Popper’s views on MI and as comments on Watkins have fueled a considerable literature (see e.g. Lukes, 1968, also very influential), a large amount of the further debate is biased, especially the issue of “reducibility” of macro-explanations (in which sense?) to micro-explanations (in which sense?).

the notion of distributive agency). I shall argue that collective agency properly understood requires collective intentionality (itself understood in a specific sense).

Different levels of data: micro-level and macro-level.

The simplest starting point is the very basic fact that the social sciences, generally speaking, deal with data of different levels. Some data are relative to individuals in the logical sense of the term (“particulars”) through questionnaires, interviews, empirical inquiries, including investigating registry offices, historical enquiries and case studies etc., others to “aggregates” of individuals, through statistical data. One often calls the level of individuals the “micro-level” and the level of aggregates the “macro-level”.

F. Hayek (1952a, 1988) is one of the rare social scientists to have really focused attention on the difference between this issue and the issue of the “emergence” (in a weak or in a strong sense, see below) of certain large scale social facts from other smaller scale facts. But Hayek quickly dismissed the former issue because, according to him, it dealt mainly with demography and sociology but not so much with economics, which was his sole topic. Actually, Hayek’s assessment leads economists to minimize macro-economics (and consequently macro-sociology) and also a certain orientation of MI, which Weber favors on the contrary. Nevertheless, unlike Hayek, I shall carry on first with this issue, which is close to Weber’s concerns and which lets us compare MI with one of the main representative of the so-called holistic tradition, Durkheim.

Let us take some examples. Statistics show that Protestants commit suicide more than Catholics (Durkheim, 1897/1952). There are, of course, many other regular correlations regarding suicide, for example between the suicide rate and the fact of being married or not married, of having children or not. These specific correlations, established by Durkheim (1897/1952) in *Suicide*, have been confirmed both for his time and nowadays (while others have been refuted). But statistics coming from other sources show that there is also a significant correlation between religious affiliations and the fact of being an executive in a company in the 18th century in Europe. These latter correlations are the starting point of Weber’s *Protestant Ethic and the “Spirit of Capitalism”* (Weber 1904/2002). The most striking difference here between Durkheim’s and Weber’s methodology, very often bluntly opposed, is that Durkheim is much more careful (and therefore exact) than Weber in the analysis of statistical data and much more precise (analytical) in his characterizations of what is correlated, but both take their starting point in the macro-level. In economic life, one observes as well correlations at a comparable aggregate level, between, for example, the inflation rate and the unemployment rate, to take the most famous example in this respect.

It is useful to notice that natural sciences meet the same duality of data (individual level, aggregate level). Physiology, for example, is based on an addition of observations at the level of human individuals practiced by physicians and biologists and these particular observations let appear regular correlations at the aggregate level, and only at this level, between, for example, smoker rates and lung cancer rates, fruit consumption rates and absence of colon cancer rates and so on. Besides, on the one hand, physiology also deals with data of various dimensions or scales, regarding whole bodies as well as specific organs or blood components, hormones and bacteria, etc. On the other hand, in these matters, the issue of the (functional) relation between the different organs of a body and the body itself as a relation between parts and the whole is also at stake.

Macro-macro correlations.

In order to understand not only the nature of research programs focused on *micro-macro relations* (meaning relations between data of different levels), but also the real significance of such programs within general social science, it is necessary to compare them to other programs, namely the programs devoted to the analysis of *macro-macro correlations* (for which holism is often mistook). Consequently this will provide a more complete view of the relations between entities (objects, humans, events, processes, etc) to which the statistical macro-data, which we have started to consider, refer.

a) It is reasonable to envisage that there might be causal relations between statistically correlated phenomena. But it is sometimes difficult to prove that such causal relations exist and, if so, what their direction is. The direction of the possible causality relation is sometimes just truism (e.g. between being married or not married and committing suicide, since the other direction is just nonsense). But it is also sometimes impossible to decide which direction it is in considering the sole macro-level; evidence might have to be found at the micro-level. Besides, the correlation is often enigmatic in itself.

Thus, a regular correlation between the number of Protestants in a country and the number of suicides suggests that the kind of affiliation may play a role but does not say which role. The fact that there is also a regular correlation between the day of the week and the number of suicides could suggest that there is also a causal link between these two facts; but this correlation is at least as much enigmatic as the previous. Similarly, a regular correlation between the rate of Protestants in a country and the number of industrial companies suggest that they might be a causal relation between these two phenomena but not which nor why. Regular correlations in economic life raise the same kind of question.

b) A very much debated methodological question inside the social sciences has to do with the issue of the legitimacy of autonomy for macro-level (or macro-macro) analysis; that is, the legitimacy of considering it as a self-standing domain. According to the autonomy thesis, it would not be required at all in social science to search for the micro-foundations of the macro-macro correlations. On the contrary, such a macro-micro program might even be illegitimate if what is at stake is really science and that science is _ and only is _ finding regularities and subsuming them under mathematical laws (as Kepler did in astronomy). Even if one does not uphold such a narrow positivist viewpoint, we may argue that the research of statistical regularities and correlations is the main basis of any science (even within a globally nomological-deductive conception of science, Hempel, 1965), so that moving on to the investigation of the micro-bases of macro-data eventually leads to neglecting the macro-macro level too much and therefore to losing the opportunities of discovering significant correlations. One can guess that it is for similar reasons that certain positivists, in economics, in sociology, and in demography have spontaneously but deeply shown reluctance about extending their invest to this level.

This debate has been particularly intense in economics for specific reasons. Actually macro-macro programs can induce a specific form of economic policy: thus, governments can try to influence macro-data (e.g. unemployment rate) by intervening in other macro-phenomena (e.g.inflation rate) through regulation; in other words, it favors an interventionist conception of States, such as that enunciated by Keynes, while liberals would uphold that States have only to hunt out the obstacles to the free choices of producers and consumers (free market). The domain of economics that restrains itself to this macro-level is sometimes called “macro-economics”, however ambiguous this phrasing is.⁵

In sociology, the consequences regarding social policy are not as clear. The reasons for this are tow: first, sociology covers a much larger domain than economics (which is, strictly speaking, the science of market exchanges) and, second, it still has not succeeded in finding as many quantifiable regularities as economics. But there are also research programs that remain at this sole level. These programs are often called “quantitative analysis” because one of their main concerns is to give a statistical format to the much vaguer statements, which are so numerous in folk sociology (see Goldthorpe, 2000). Demography, till recently, remained at this sole level (comparing, for example, fecundity rates and economic growth levels in different countries).

⁵ When one speaks of macro-economics, one can first think of a domain in which significant correlations are searched for at the statistical macro-level of economic life, whatever the scale of the social entities. But most times statistics considered by macro-economics are *national* statistics (such as national unemployment, national inflation, national income, national output, national consumption, etc), that is statistics at a specific scale, the scale of a state.

We can also see a similarity here with the natural sciences, where the legitimacy of research programs located at the sole macro-level is not controversial. Thus, in biology, it is useful to know that lung cancer is regularly associated with smoking so that a causal relation is plausible. It lets physicians advise patients not to smoke to prevent lung cancer, even if it is not known more precisely why it is so. The main difference between social science and natural science here is that the sociological or economical “laws” are based on regularities that are not so strong as most regularities in physics or in biology; but even in these domains, the notion of law, taken in its logical sense, which implies an absolutely constant correlation to allow the physicist to say that this relation is necessary (and so satisfies Hempel’s nomological-deductive model, Hempel, 1965), is too strong (Cartwright, 1983). One should only think of statistical regularities (which even Hempel may have recognized).

This sort of (macro-macro) program was given much consideration by Durkheim himself. His famous statement that “social facts have to be explained by other social facts” is often understood (wrongly) as having only that meaning. But one must notice that *de facto* Durkheim did not restrict his scope to the analysis of macro-macro correlations. As Durkheim already did and most economists now do, few sociologists nowadays consider that social science must restrict its investigation to this domain. Goldthorpe (2000) himself, formerly one of Great Britain’s leading figures of macro-macro analysis opened the path towards micro-foundational programs. And biology (just to take this example in the natural sciences) clearly requires other models of explanation than Hempel’s (Cartwright, 1983, Darden, 2007). It is this topic that I shall now investigate in detail.

Searching for the micro-micro processes explaining macro-macro correlations

Whether the previous level can be legitimately autonomized or not and whether it is *necessary or not* to seek the micro-foundations of the correlations observed at the macro-level, it is at least anyway *possible* to do it.⁶ And if one wants to have a fuller understanding of the social phenomena, this is required. It is because the “causal” macro-relationships (between entities or processes to which statistical data refer) often remain enigmatic (see above), that one can be led to look for their micro-“foundations” in order to give a more complete explanation. It would mean to evidently go beyond Hempel’s criterion of explanation (the subsumption of particular empirical statements under universal laws).

⁶ One must be aware that what many authors call the “microfoundations” issue in social science generally does not mean specifically this problem or this problem only (see above about the entanglement of several issues). See, for example, Little (1994). So there is only a “family resemblance” with the comment given by Little on Jon Elster’s methodology in this passage: “Note the ambiguity [...] between ‘social processes can only be explained in terms of individuals’ and ‘It is possible to explain social processes in terms that only refer to individuals’” (Little, 1994, footnote 2, p. 493). See also Udehn (2001, 216).

Thus, Weber examined (by investigating historical cases) which psychological process might have occurred in the mind of Protestants that contributed to them becoming the actors of the capitalist world more often than others. This process was roughly the following: because the Protestant Ethic, on the one hand, enjoins to consider any professional activity as equally pleasing God, and therefore does not encourage at all people to have contempt for commercial and bank activity (unlike Catholics) and, on the other hand, urges on people to work as much as they can and to devote as little money as possible to material well-being, Protestants tend to become heads of companies or bankers and to accumulate money much more than members of any other religious affiliation. If they invest their earnings and are successful, they will even increase their capital. Furthermore, companies' and banks' Protestant employees will also work as much as they can, again just to please God. And finally, if belief decreases, the habit of working hard without spending one's money will remain: it will become what Weber calls an "ethos".

Similarly, to quote Heath (2005), "one might notice a constant correlation between the date of the first frost and fluctuations in the price of wheat. But we do not really understand the phenomenon until it has been explained in terms of the rational actions of economic agents: an early frost reduces yields, leading to less intense price competition among suppliers, more among consumers, etc. "

Durkheim, contrary to a wide-spread misconception, which always opposes him with Weber, again proceeds in a comparable way (see above about the macro-relations), looking for processes at the micro-level of individuals that could explain the hypothetic causal macro-correlations (between, for example, being Protestant and committing suicide). Unlike Weber, however, Durkheim does not try to discover the complex and diverse psychological mechanisms that lead certain people to commit suicide, for example, investigating either *numerous* individuals or *typical* individual (particular) historical cases. Instead, Durkheim just reconstructs a few plausible simpler psychological mechanisms, and tries to take account of the numerous data at the macro-level by using this simple explanatory model. One of these mechanisms (and the only one that contemporary social science has kept after further conceptual analysis and empirical tests) is that people need to feel integrated, need to have strong ties to feel well. If these ties are missing, people are more inclined to commit suicide. This psychological hypothesis accounts correctly for all the macro-level data. Then Durkheim focuses attention on the different kinds of social ties that protect from suicide (being married, having children, being affiliated with an integrative religion, etc.). Moreover, another significant difference between Weber and Durkheim is that the latter is not cautious at all about using collective concepts or, more generally, concepts implicitly implying superfluous entities, such as the concept of "pathogenic flows" (*courants suicidogènes*), which make explanations confusing (but actually do not play any effective role in the explanations).

Many contemporary sociological and economic investigations searching for the micro-foundations of statistical macro-correlations use a method of *reconstruction* very much similar to Durkheim's, as opposed to a method based on historical investigations that was employed by Weber in *The Protestant Ethic* (see Coleman et al., 1966, Boudon, 1973). Actually, what the social scientists are supposed to do when they deal with macro-data is just to find a *plausible* psychological functioning shared by most people. So even though the hypothesis deals with psychological processes, social scientists are *not* doing psychology properly understood and do not deserve the very frequent accusation of psychologism (See Udehn, for example). The point is that, in these kinds of investigation, they do not search for an empirical validation at the (micro) psychological level while trying to account for macro-data; on the contrary, the validation is searched for only at this macro-data level (does the plausible micro-process explain the macro-correlation?).⁷

Among the current reconstructions of plausible motivations of individuals, most are based not on psychological hypotheses close to Durkheim's (motivations like the need to be integrated), which are anyway epistemologically quite acceptable, but on the psychological hypothesis that individuals are *purposive* (or intentional) (Coleman, 1990, Boudon, 1973, 1979/1981). Most of the times methodological individualism is identified with this *very specific* micro-foundational program aimed at finding the processes at the basis of macro-correlations and restricting these processes to intentional actions.

Many contemporary advocates of MI still add, in their models of explanation, that the purpose of individuals is their self-interest, however broad this notion might be understood. What is often called Rational Choice Theory is even a narrower version of this general paradigm. But economists and sociologists sometimes, such as Sen (1982/1999), Coleman (1990) and Boudon (2005), use a much broader version in which the purpose is not necessarily one's own material self-interest but may be, for example, other-interest instead (see below).

Even Weber did not explain the birth of capitalism with the assumption that the sole micro-foundational hypothesis should be that the social actors act intentionally: when the religious belief had disappeared, that which urged ex-protestants on to work as hard as they could without enjoying their life and spending money was no longer intentional; it has become just an *ethos* or an *habitus*. Consequently, it is similarly wrong bluntly to oppose Bourdieu's method and micro-foundational programmes. The opposition is rather with intentionalist programmes (and restricted conceptions of MI). On the other hand, what is not satisfying logically speaking in many of Bourdieu's statements is

⁷ It is the well-known issue of the *bridge-principles* between scientific statements and data (Hempel, 1965). Lukes (1968) misses entirely this point when he supposes that MI might mean that "in the social world only individuals are observable" and refers to individuals' intentions as examples of allegedly observable facts, in order to demonstrate how irrelevant such a methodology is (p. 453).

that Bourdieu (Bourdieu & Passeron, 1990) often seems to implicitly consider that the real actors of social life are not human individuals but the social structure itself (incorporated in *habitus*), which seems quite unintelligible if one considers that which is at stake is only a trivial request: recognizing that human individuals are the only active source of social facts (as, generally speaking, living animals are in their own environment).

The reason that there has been such a focus on intentional or purposive model of actors is because a large part of social science has been oriented towards a specific kind of policy-making (more or less opposed to policy-making based on macro-economics), which requires that individuals act intentionally and were as much as possible aware of the plausible consequences of their acts (including the “by-products”, which can be both unintended and *expected*, such as the death of civilians during a war). So, the reasons are excellent but they are not scientifically constraining. A better reason, methodologically speaking, to a priori favor the mechanisms of purposive action when testing hypotheses is that these mechanisms seem simpler than mechanisms such as *habitus* or *ethos*.

What is at stake in the search for the micro-micro processes explaining the macro-macro correlations, is the confirmation (or refutation) of the hypothesis of causal links suggested by these correlations, which is a very general method that one encounters even in natural science. Thus, in biology, the proof of the absence of a “causal” relation between excess gastric acidity and gastric ulcer, however regularly observed this phenomenon is at the macro-level of aggregate data, is presence, at the micro-level, of processes involving the role of the bacterium *Helicobacter pylori* in the deterioration of gastric tissues, and correlatively, the recovery of the ulcer patient after antibiotic therapy. These micro-processes prove that gastric acidity is neither the cause nor even the main cause of gastric ulcers (although statistically correlated).

One major underlying epistemological issue here is, of course, that macro-macro programs and macro-micro programs illustrate two conceptions of explanation: first, to explain is to subsume under a necessary general law, which is roughly Hempel’s conception (cf. above); and, second, to explain is to find the “cause” of a fact, to discover the mechanism (or the process) that leads from one state to another, which is roughly Cartwright’s (1983) conception in physics, Darden’s (2007) in biology and Elster’s (2007) in social science.

Finally, it must be clear, first, that it would not make any sense to say that the statistical data (macro-level) are the *effects* (in any sense) of the individual human acts observable at the micro-level. The data at the macro-level only *express* some characteristics of the data at the micro-level in another logical form. Similarly, if there is a hypothetic “causal” relation between macro-data, this causal relation just *expresses* a hypothetic causal relation at the micro-level, which in social science means a (psychological) process. Thus, what is sometimes called here a micro-macro relation is just a *relation*

of expression. It is evident that the “collection” of individual acts that constitute the source of macro-data about suicides, Protestantism, Capitalism and so on does not require any concept of collective agency; the concept of individual agency in its different aspects (intentional or not, egoistically rational or not) is sufficient. And if Weber deserves to be recognized as having explained certain features of the “emergence” of capitalism, it is only because he accounted for the process by which *individual* intentions could transform themselves into *individual* ethos.

Unintended and unexpected complex large scale social phenomena. Distributive Agency.

The previous issue is often confused, as anticipated in the introduction of this chapter, with a different issue which deals with the “emergence”, in a weak or in a strong sense, of *new phenomena* resulting from involuntary interactions between interdependent individuals.⁸ As these new phenomena have a bigger *scale* than the actions or behaviors that produced them, it is often more or less implicitly thought that this issue deals with the micro-macro relation issue in one sense or another. One of the simplest examples is a traffic jam (I shall speak of weak emergence in this case).⁹ More complex still, is the free fish market in a harbor (possibly strong emergence). A still more complex and on a larger scale is the free market system, generally speaking, or capitalism (possibly strong emergence). I shall concentrate in this heading on phenomena that are emergent in a weak sense and not in the strong and most proper sense (see next heading).

At first, it may be useful to be aware clearly of a possible bias originating in the history of social sciences. Actually, many trends in current social science often refer both to Carl Menger (who inspired Hayek deeply) and to Max Weber as the founders of MI as if they shared the same conception of social science. But Menger and Weber met essentially on the criticisms of collective concepts in social science (such as “capitalism”, “state” and so on), in a context in which ideas close to Hegel’s were re-emerging, mainly through Gustav Schmoller’s work, one of the leading figures of an historical approach of economics and Weber’s former teacher.¹⁰ Both considered that such concepts were deceptive because they can induce the implicit belief that there is something else than human individuals related to each other in various ways under these concepts. But there were major differences of viewpoint between Weber and the Austrian School members, particularly Hayek,

⁸ There is a huge literature on emergence. Regarding social science, see Sawyer (2005) for a useful comparative synthesis. I shall consider here that *weak emergence* requires the apparition of a new phenomenon resulting from the interaction of smaller scale phenomena and having, for that reason, a higher complexity than its sources, even possibly a structure. If this structure displays a functional unity (which is often disputable) and only in this case, I would speak of *strong emergence or emergence properly understood*. I have chosen this definition among many possible others because it fits with genuine interrogations on various social facts.

⁹ See the previous footnote.

¹⁰ The inverted comas used by Weber in the title *The Protestant Ethic and the “Spirit of Capitalism”* were a mark of irony clearly directed towards Hegel’s notion of the “spirit of peoples”.

regarding the issues at stake here. Thus, unlike both Weber and Durkheim, Hayek focuses straightly on *micro*-level data.

Hayek's way of thinking can be seen in many contemporary works and I guess it is more pedagogical here to take one's starting point in a very basic example borrowed from Thomas Schelling (1978). A traffic jam is a collective behavior in the sense that many individuals are involved and also in the sense that the jam is the result of the interactions of drivers whose behaviors are closely interdependent (e.g. if a driver goes ahead at a red traffic light, he might block the way of other drivers). Interaction and interdependence are essential here. It makes sense to say that a traffic jam is a larger scale phenomenon than its causes, namely each driver's individual behavior, and that this larger scale and more complex phenomenon is the *effect* of composition of these smaller and simple events.

Traffic jams are a very good model of other (natural or social) phenomena. Traffic jams are similar to natural "bottlenecks" phenomena, which happen when solids or liquids cannot pass through the same passage at the same time or when people are crushed in a panic because of a narrow exit. But much more complex phenomena like the student revolts in the late sixties in the Western universities can be explained partially as "bottleneck"-like phenomena: there had been a "baby boom" after the Second World War and a democratization of Universities, so that many more students entered into Universities, most of them hoping to have a job similar to the qualified students of the previous generations. But as the number of attractive jobs did not at all increase at the same time, students (often too late) realized that the expectations of many of them would not be satisfied, therefore, they felt deeply fooled. The bottleneck situation is an effect resulting from the interactions between student expectations (similar to the molecules of water in a bottle) and the social or occupational structure of their country (similar to the bottleneck of a bottle). One major feature of this complex phenomenon is that the carriers of students are interdependent (as the movement of molecules in a closed space): if a student finds a job on the job market, a space will be missing for the others (Boudon, 1981).

The most striking aspect of the outcomes in the previous examples is that they were unintended and often even unexpected (Merton, 1968), although many of them were the products of intentions. Besides, each of the drivers who causes a traffic jam probably has reasons that seem subjectively good to him or her, but the result of similar interdependent behaviors is not only different from what each one wanted but also is exactly the opposite (the result is worst than if they had waited). Much more large-scale (and historically significant) facts can be explained in this way, such as diplomatic relations leading to a war although no State really wanted it. The First World War is often described in this way, the Sarajevo assassination being only the triggering event of a series of events depending on a huge network of interdependent interactions, which were often "blind" interactions (in the sense that each other's relevant intentions were not known).

The unintended outcomes of these blind interactions between interdependent actors are often disadvantageous for all or most people, as the previous examples show. But they also can be beneficial to certain people and disadvantageous to some others. A fruit seller can decide to decrease the price of his strawberries to attract customers and then earn more money. But if every fruit seller does the same at the same time, the customers will keep on going to the same seller, the competition will not have the result that was looked for and the sellers will finally lose money while the customers will benefit. In this case, there is an (unintended) counter-result for the sellers and an unintended positive result for the customers, therefore a sort of *social disorder* if one considers that social order requires a kind of functional unity.¹¹

All these previous cases display a situation that is different from Weber's history of capitalism. It is surely not only an arithmetic addition of behaviors that leads to the outcome in the previous examples and moreover, each time the result is really a new phenomenon, different from the phenomena that were at the origin of the process. However, if a certain "collection" of individual actions produces this result, it would be hard to speak of collective action in a strong and proper sense, since the outcome did not result at all from collective intentionality between the individuals (which requires a communication of intentions at least). The "whole" is here just what logicians sometimes call a "distributive" whole _ which is not a collective whole properly understood, if one agrees to reserve this phrasing for something very specific, involving collective intentionality. Consequently, the concept of *distributive agency*, which results from the "blind" interactions between interdependent individuals, suffices, although one could surely say that the action is collective in a weak (and everyday) sense of the term.¹²

Emergent social phenomena. Distributive agency and Social Order. Social Structures and Institutions.

The investigation of interdependent interactions has to be carried on. It seems that on certain occasions, blind interactions (in the sense of interactions without linguistic communication of intentions) between interdependent actors can be advantageous for *everybody*: one may observe a sort of harmony that any planned action could have plausibly reached, so that he or she could be entitled to speak of a "spontaneous order" (Hayek, 1948) and of strong emergence.¹³ One of the best examples of an emergent order, according to some social scientists (Hayek, 1948, 1988), is a free market though, strictly speaking, no existing free market is completely free (there are always regulations). The emergence of languages is another example of an emergent order (Hayek, 1948, 1988). Both are based

¹¹ See footnote above.

¹² Hayek (1988) also used the concept of distributive agency, but in a significantly different (stronger) sense. See below.

¹³ See above.

on numerous reciprocal inter-individual adjustments, which are all the more remarkable since they do not proceed from any will attempting deliberately to impose an order. On the contrary, an order emerges when there is no voluntary intervention.

Let us again take an example. If customers want to get strawberries during winter, there will surely be sellers who will try to find them for these customers; and they will do it not because they are altruistic (or because they look for harmony, that is “order”, in the social world,) but just because they want to earn money. On the other hand, if customers do not want cherries any longer in the winter, because, for example, they find them not tasty enough, then the suppliers will be led to sell something that is a better fit with their new demands in order to turn a profit. Austrian economists, such as Menger, von Mises, or Hayek, other economists such as Walras and Pareto, and before them, Adam Smith and Mandeville, have shown that, in economic exchanges, there should be a tendency to equilibrium between supply and demands as long as exchanges are free and production and consumption are not hampered, given the well-spread propensity of most people to search for their material self-interest.

Hayek (1952b) used the same model to account for the emergence of a “spontaneous order” in biological and physiological or more precisely neuro-physiological domains, where the model is convincing since the proof of the functionality of a biological system is that it lives if it works and it dies if it does not. But this model is not entirely convincing in economic matters: many social scientists from Ferguson (1995) to Pareto (1916/1935) to Hirschman (1977) have proved that there might be people who suffer in a completely free market, even if the whole (the society) is beneficial.

But Hayek’s analysis is convincing on a related issue, important for our concerns. Actually, Hayek demonstrates how prices (for example the prices of the strawberries in the market) are just the result or the “*aggregation*” of *interdependent interactions* (between sellers and sellers, customers and customers, sellers and sellers). Evidently this kind of aggregation (between particular acts at the micro-level, producing particular events such as the price of strawberries) does not have at all the same meaning as the *aggregation of data* from the micro-level to the macro-level (cf. Weber’s or Durkheim’s analyses), which the use of the same concept of aggregation may veil.¹⁴ According to this research program, an analysis of social facts similar to Weber’s investigation of the birth of capitalism just *misses the point* of the explanation required: capitalism would not have been possible with actors just individually working as hard as they could and investing money as much as they could; heads of companies necessarily could not have been only worried about their virtue or have just expressed their addiction to work; they had to focus attention on the (possibly changing) needs of the consumers in order to invest in the specific goods that could satisfy consumers’ (possibly changing) preferences and

¹⁴ Of course, one can also calculate the *statistical* price of strawberries in a country (or in a market)

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not just anywhere. The birth and development of capitalism *cannot* be understood but as the result (if not the emergent result in a strong sense) of interdependent interactions.

If such a spontaneous, harmonious order does not emerge from the social interdependent interactions as evidently as Hayek contends, it is nevertheless true that many disadvantageous consequences, such as the bottleneck situations, are partially the effect of certain *pre-existing structures* (advantageous to everyone or not, therefore “emergent” in a strong sense or not) produced by previous interactions. There are traffic jams because the streets are too narrow, there are unemployed qualified students finishing schooling because the social structure offers too few positions, and so on. On the one hand, the social structures are not the sole cause (other causes are the decisions of people within this framework), so that speaking of structures as entirely “determining” individual actions, as French structuralists (Bourdieu, e.g.) have sometimes upheld, does not mean anything significant. On the other hand, these structures are themselves the outcome of previous individual acts so that what is at stake is just a *feed-back* from the institutions to the individuals. Nevertheless, noticing this does not require assuming the autonomous existence of structures (in a strong sense of existence involving that these structures are real actors).¹⁵ But there is no difficulty in accepting Popper’s very inoffensive idea of a “world 3” (including social institutions) (Popper, 1972) as far as this just means that there is a difference between, for example, a country where *there is* a certain kind of job, a certain kind of politeness conventions, etc. and another one where *there is not*.

Again the situation is comparable to certain natural facts: although a hive’s alveoli are the result of the interactions between the interdependent behaviors of bees, when alveoli have been built, they constrain the subsequent behavior of the same bees (and of others). On the other hand, they also represent opportunities for storing honey and nursing larvae (See Popper, 1994, p. 167 and Jarvie, 1972, p. XIII). Similarly, when professional positions, for example, have been created (more or less voluntarily), they constitute both opportunities and constraints. Coleman’s (1974, 1990)¹⁶ and Boudon’s (1973) works are exemplary of what can be called structural analysis or “structural individualism” (Udehn, 2001).¹⁷ In a comment on *The Protestant Ethic*, Coleman even implicitly adds to Weber’s analysis the idea that Protestantism, when instituted, became both a constraint and an opportunity structure for people (Coleman, 1990).

Popper’s *situational analysis* is another version, just more substantial (the previous, more formal one, retains only the structure or certain structural aspects of the situation), of the same idea,

¹⁵ Coleman’s diagram (Coleman, 1990) or what Bunge (1996) calls the “Boudon-Coleman diagram” accounts for this feed-back of social structures on individual actions. See also Lukes (1971), p. and Udehn (2002).

¹⁶ See also Coleman. J.S., et al. (1966).

¹⁷ See also Wippler (1978) for a comparable viewpoint, more focused on the structural effect of social networks.

namely, that choices are always made within a particular context.¹⁸ Agassi's (1975) and Jarvie's (1972,2001) have elaborated on the same vein of ideas in introducing the notion of *institutional individualism*.

Thus, contrary to what some scholars have contended (e.g. Udehn, 2001), there is no logical contradiction or oxymoron in structural and institutional individualisms. Each expresses a specific research program in which the idea that structures and institutions are just the result of individual actions (so that they cannot be introduced as effective actors in an explanation) is *taken for granted*. The focus, within these programs, is to investigate the role of social situations and social structure (both as opportunities and as constraints) in the choice of individuals and the outcome of their choices.

As these structures are either not intentional or only partially intentional, speaking of collective agency properly understood again does not seem legitimate whereas speaking of (possibly spontaneously ordered) distributive agency would be relevant.

Intended phenomena. Paradoxes of collective action.

It is a truism that institutions, generally speaking, are not completely unintended. But the role of intentions is still much more significant in specific institutions, such as in Law and in Politics, and still more so in more concrete institutions (such as schools, hospitals, companies, churches, Trade Unions and also various informal associations of people sharing any common interest). In these cases, given that social order (even if it does exist) does not spontaneously emerge in all the aspects of social life, anyway, there may be procedures (such as voting, negotiation, or argumentation in which intentions are at least partially revealed) to arrive at deliberate collective decisions where one of the main goals is to avoid the unintended *undesirable* effects of intentional or unintentional individual actions.¹⁹

But a vexing issue has been tackled by many sociologists and economists within the framework of this empirically fruitful although narrow version of MI, namely Rational Choice Theory. It methodologically restricts the model of explanation to the idea of individuals rationally seeking their self-interest, more specifically their material self-interest, and raises the issue: to what extent individuals who have interest to act together *effectively* do act together? Karl Marx, who however tried to elaborate on the conditions of a revolution, therefore at least a partially deliberate collective action, seems to have entirely missed this specific point (Elster, 1985). Marx seems to implicitly think that when people have common interest to act together, they automatically do so. Thus collective action

¹⁸ Boudon, 2005, also uses situational analysis. Winch's (1958) and Lukes's (1968) objections to Popper do not take situational analysis into account. See Jarvie (1972).

¹⁹ Pettit's recent work accounts for collective intentional subjects characteristic of these contractualist situations (Pettit, 2003). But this account again (although unconventionally called "holist") does not require more than individuals.

would result or emerge straight from the awareness of shared goals. According to Marx and most Marxists, if workers do not act together it is either because they do not clearly perceive that they have common goals (they are deceived by ideology) or they misrepresent their genuine goals (yet because of ideology) or they minimize their opportunities. What communists have to do is _ and mainly _ is to make workers aware of their genuine common goals and of the means at their disposal for reaching these goals.

But observation proves that this analysis does not take into account a very striking fact: that very often people who share common interests, who know that they share these common interests, and who are pretty well-informed of the reasonable chances of success, *do not* act together. Mancur Olson (1965) has brilliantly displayed numerous cases of this kind, explaining them by the fact that if actors are looking out for their material self-interest, participating in the collective action is not worth the time and energy since anyway they will benefit from the result as much as those who participated. So calculators should encourage the other people to join trade unions and to go on strike while they do *not*.

Exerting external pressure on individuals (threat of penalty, effective penalties) in order to favor collective action is surely in principle a way of increasing the effective participation of individuals in the collective search of the common good, whatever it is. But it is also empirically well-known that what is done only under pressure is usually done badly. Amartya Sen's view is not so far from Max Weber's when Weber said that capitalism would not have been possible if heads of companies and employees had not worked as much and *as best* as they could (Weber's account is not precise enough; he does not distinguish between hard work and careful work). Sen (1982,1999) expresses more specifically the necessity of a *sense of duty* or of everybody's *commitment* to the common good of the company in order for this to succeed. Other social scientists, such Hirschman (1970), have noticed the necessity of what they call (reciprocal) *loyalty* between employees and heads of companies or more generally between superiors and subordinates, any violation of these implicit contracts leading either to "exit" (when it is possible) or to "voice".²⁰

Collective Intentionality and Collective Agency Properly Understood.

Amartya Sen has introduced the concept of commitment to account for the construction of what can be genuine collective action or a kind of action close to genuine collective action. But, in his very famous paper, before introducing this concept, Amartya Sen (1982) first had examined the relevance of another notion, the notion of identification (with others' interests), introduced by Adam Smith (1759/2002) to equilibrate self-interest (or self-love) as core motivations of human actions. Adam Smith's suggestion has also been re-examined by many other contemporary authors and in

²⁰ See also Stewart on loyalty (1994).

various ways (notably by James Coleman, 1990, and Russell Hardin 1995) to account for certain kinds of collective actions. One can envision *identification* of people with a common goal, or with a representative oriented towards this common goal, or with the community to which they belong.

But the concept of identification is very complex (the identification with a community is, for example, related to Durkheim's concept of the need for integration) and seems to encompass many kinds of different situations. So that, here as elsewhere, the right methodology might be first to try to investigate the relevance of simpler concepts, such as the concept of intentional or purposive action (which anyway does not exclude infra-intentional processes such as identification). Besides, as the dominant MI framework is currently focused on the model of an intentional or purposive action (cf. above), it is not astonishing that a lot of analyses have been recently elaborated on the nature of collective intentionality.

Thus, von Mises wrote that "it is always single individuals who say *We*; even if they say it in chorus, it yet remains an utterance of single individuals" (Mises 1949 p.44), thereby clearly taking an individualist stance, he did not elaborate further on this point. John Searle (1995), on the contrary, coming from a philosophy of language perspective and assuming holistic intuitions, has offered an elaboration of this issue. As Bratman (1999) summarizes: "A we-intention, for Searle, is a distinctive attitude of an individual _ an irreducible addition to the kinds of attitudes of which we are capable. On the tack I am taking, my intention that we J and my intention to play my part in our J-ing are both intentions _ they are both instances of the same attitude; but they are intentions that differ in their content"(Bratman, p. 115, n.16). Searle takes the example of a violinist in a concert as well. *My* intention as a violinist to play my part in a symphony depends on *our* collective intention to play a symphony and not the reverse. But, although my participation *qua* symphony violinist in a concert depends on the existence of a (transitory or permanent) symphony group, the existence of this group depends on the will of each participant *qua* individual violinist. Be that as it may, Searle does not explain the production (or "emergence") of collective intentionality.

Tuomela (1995, 2002) suggested making a distinction between two modes of willing to do a collective task: the "I-mode" and the "We-mode". One can participate in a collective action (in a broad sense) in the I-mode, which means that everybody is looking out for their own goals, by adjusting them to the goals of others in order more surely to attain their own, which can turn out to provide satisfaction for everybody (as in Hayek's model of reciprocal adjustments between sellers and consumers). But one also can act in the we-mode, which means that everybody is searching for a common goal or attempting to achieve a "joint action". According to Tuomela, joint action would be the core of collective agency, but he did not explain the content of this "joint action" in detail. Tuomela's analyses, focused on the search for formal models, are very much disconnected from

empirical studies (just as Bratman's). Therefore their relevance is hard to assess, although Tuomela tackles exactly the same issues as social scientists such as Hardin, namely, how to understand situations described by slogans like "one for all and all for one"? (see Hardin, 1995).

Gilbert's analyses are more explicitly connected to issues in the social sciences and hence have a clear empirical significance. She tries to interpret certain intuitions of Durkheim in a more analytical way (Gilbert, 1994). Gilbert's main idea is that sociality is based principally on tacit "joint commitments", that is the sort of implicit contracts such that everyone feels committed to do something if and only if others feel committed to do the same (which supposes sort of a *common knowledge* of every personal commitment). It is sort of an extension of Rousseau's and Hobbes's contractualist models to situations in which there is no explicit contract. But, unlike Sen's concept of commitment, Gilbert's concept of commitment does not have any moral significance, although it clearly has a normative significance (1989, 1996).²¹ Joint commitments can evidently also occur not only in a collective action as charming as a tango or as ethical as anti-apartheid activism but also in collective actions as cruel as those that Russell Hardin (1995) discusses, namely, deliberate genocides.

The most problematic issue with Gilbert's viewpoint, according to the concerns of this chapter, is that she does not avoid ambiguity in her assumption of "holism". Strictly speaking, she would need only to say that individuals jointly committed feel *as if* they were members of an autonomous *plural subject* (Gilbert's concept, 1989), so that the subject of a collective action properly understood would be individuals (*feeling* as members of a plural subject) but not an objective plural subject. In other words, Gilbert could _ and even should _ have clearly upheld just a "subjective" holism, without assuming the objective existence of these plural subjects. Sometimes, however, Gilbert seems contrarily to assume the existence of such "wholes", i.e. supporting objective holism, which is impossible to accept if "existence" is taken in its strong and proper sense. Human beings, like animals, exist in a perfectly understandable meaning of "to exist" (Popper's "World 1" or material world); this is not the case with a plural subject. Or plural subjects exist just as elements of what Popper would have called the "World 2" (consciousness), which is subjective. In other words, Gilbert claims that a genuine collective action requires a plural subject. I claim that it only requires joint commitments (at least most of the times).²²

Conclusion

The notion of "collective action" is often used in social sciences in a very broad sense. One of the main concerns for social scientists and philosophers is always to try to account for collective action

²¹ Michael Bratman (1999) has contested that (joint) commitment was necessary for collective intentionality, but recognizes that this is a much less frequent case. Bratman elaborates on the notion of interpersonal adjustment (but, unlike Hayek or Tuomela, towards a common goal).

²² See previous footnote

as distinct from a mere sum of individual actions. Most of the recent, often very subtle, analyses proposed by philosophers of social phenomena have been elaborated within the framework of intentionalist models, and done both by proponents of a strict individualist stance and advocates of more holistic-style intuitions. But, if these debates are currently more and more closely related to discussions inside the social sciences themselves, there is still a large gap not only between purely conceptual analyses and empirical case studies but also between philosophical analysis and the proper concerns of social scientists, whereas there is sometimes yet weak interest from social science for subtle philosophical analyses.

The main gap, however, might be between these conceptual analyses of collective agency as requiring collective intentionality and the much broader conceptual domain of social science, in which the construction of collective action (strictly understood) as a micro-macro mechanism turns out to be only one problem among the many problems raised by the so-called “micro-macro link problem”. The philosophy of social science, especially when included within the still broader field of the general philosophy of science, can surely here still offer further precious clarifications, especially if it remains closely related to the actual making of the social sciences.

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