Why Economics Is not a Science of Behaviour

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"…social theory is, strictly speaking, not a science of behaviour and to regard it as part of 'behavioural science' is at least misleading."

F. A. HAYEK (1967, p. 72n)

"I remind myself of the old advice that the doctrines which best repay critical examination are those which for the longest period have remained unquestioned."

A. N. WHITEHEAD (1948 [1933], p. 207)

The purpose of this paper is to criticize the notion that *economic phenomena are (or can be reduced to) the problems of behaviour*.[1] This plausible and as I believe mistaken idea has sometimes been called (methodological) *psychologism*[2] and I follow here this terminology. In opposition to psychologism I put forward the notion of economics as a study of spontaneous order independent of any behavioural science. The argument is based on important contributions of Hayek (1952) and Popper (1957, 1966 [1945]). If it is correct, then all the attempts to come up with more adequate model of economic behaviour (as practiced e.g. by the representatives of 'behavioural' or 'psychological economics') are misconceived. If we ask: "What is the adequate model of behaviour for economics?" we implicitly assume that economics actually *needs* a model of behaviour; hence, we assume psychologism of a kind. It is precisely my aim to show that this question is begging for a wrong answer by the way it is put.

At the outset it should be made clear that what is involved here is *not* the problem of a *definition* of economics. Indeed, everyone is free to define terms as he or she pleases: if one defines economics as a science of behaviour, we may

[1] This notion is manifested in various pronouncements such as "[a]ll phenomena of society are phenomena of human nature" (Mill, 1974 [1843], p. 877); "[…] psychology is fundamental to political economy and all the social sciences in general" (Pareto, 1971 [1906], p. 29); "[e]conomics is the science which studies human behaviour" (Robbins, 1945 [1932], p. 16); etc.

[2] The term psychologism is generally used to designate a philosophical position according to which logic and mathematics are reducible to psychology, and is generally believed to originate with Gottlob Frege. Mises (2003 [1933]) used the term (which he probably adopted not directly from Frege but through Husserl's work – cf. Long, 2004) in a similar sense when arguing that not only logic and mathematics but also the laws of economics are not laws of psychology and that they are valid a priori. The term in the sense of this paper, i.e. denoting the view that denies the existence of autonomous, of-psychology-independent social phenomena, was employed for the first time by Popper (1957, 1966 [1945]), who also acknowledges his debt to Husserl for it. Schumpeter (2006 [1954]) uses the term in the same sense. Alternatively, the terms psychologistic individualism (as opposed to institutional individualism – see below) or individualistic psychologism are used in this second sense (cf. Agassi, 1960, Boland (2003 [1982]).

accept this definition. But the message of the argument would still hold; it would only have to reformulated as: *there are problems of social sciences*, *which are not problems of behaviour and are irreducible to them*. Thus, the issue here is not that of linguistics; what is at stake is rather a *concept* or a *theory* of society and social phenomena than a definition of a science.

The paper proceeds as follows: part I examines the question whether there can be a science of behaviour independent of psychology (it argues that it cannot) and it suggests that if economics is to retain its traditional distance from psychology it has to abandon the notion that it is concerned with behaviour. Part II brings two arguments against psychologism: first, it shows that there is no simple one-way causation from the 'psychological' to the 'social; second, it suggests that economics studies spontaneous order and thus any explanation of individual behaviour is irrelevant. Part III deals with some misunderstandings about the theory of spontaneous order. Since the criticism of psychologism might be misunderstood as a criticism of an individualistic method, part IV argues that economics can be both individualistic and non-psychologistic. Part V attempts to further clarify the difference between the 'psychological' and the 'social' with the help of Popper's concept of 'World 3'. Part VI concludes.

I. Sen's paradox

In this paper I put an equation between a 'science of behaviour' and 'psychology'; this, however, may be found objectionable. Many economists have felt that their discipline, although being also a science of behaviour, is somehow independent of psychology. They would argue that what distinguishes economics from psychology (and other disciplines that claim the label 'behavioural sciences') is its *approach*.[3] However, this argument is untenable. Observe that the term 'approach' can be interpreted here in two ways: (i) it either means that psychology and economics represent alternative *theories* of behaviour (ii) or it means that they are different *conceptual systems*. If the former is the case then we can try to criticize and, if possible, to test the respective theories hoping to falsify one or the other; if they are the latter then they can represent either again different theories, in which case the preceding argument applies, or one and the same theory only expressed in different words.[4] In either case we cannot say that the two are mutually irrelevant.

[3] Perhaps the most conscious formulation can be found in Becker (1990 [1976], p. 5): "[…] I believe that what most distinguishes economics as a discipline from other disciplines in the social sciences is not its subject matter but its approach." Nevertheless, the roots of the notion that economics is an approach, are too be traced back at least to Robbins (1945[1932]). Coase (1998) – himself criticizing this notion comparing it to a study of the "circulation of the blood without a body" – mentions J. M. Keynes' remark that economics is a "method rather than a doctrine" and J. Robinson's famous dictum of economics as a "box of tools" as further expressions of this view.

[4] Cf. e.g. Popper (1982, p. 42). Compare also Simon's remark on Stigler's and Becker's (1977) famous *De Gustibus non Est Disputandum* article: "A rough "sociological" translation of the

Therefore, economists' resistance to psychology seems unconvincing, to say the least. This curious situation of the simultaneous existence of antipsychological attitudes on the side of economists and more or less implicit psychological assumptions in the economic theory has been called *Sen's paradox* (Lewin, 1996). Now, there are two ways how to deal with this paradox: (i) either we admit that economics is a science of behaviour and in that case it has something to do with psychology or (ii) we deny it is a science of behaviour and thus can be independent of it. Most economists who are concerned with the problem accept the solution (i) and suggest closer cooperation between economics and psychology. The argument of this essay is that the solution is in fact (ii).

II. Psychologism: the criticism

Before we turn directly to the criticism of psychologism, note that it is in line with another equally plausible (and in my opinion equally mistaken) idea – i.e. *reductionism*, according to which 'higher level phenomena' are to be explained by the 'lower level phenomena', with the prospect that all phenomena will be ultimately explained in terms of physics. The idea is often illustrated by something like the following scheme:[5]

Social sciences
↑
Psychology
↑
Physiology
↑
…
↑
Chemistry
↑
Many-body physics
↑
Elementary particle physics

Table 1

Admittedly, the whole idea of reduction aiming towards unified body of knowledge is at the very heart of science;[6] however, it is becoming clearer and

Stigler-Becker argument would be that listening to music is functional both in producing pleasure and in enhancing the pleasure of subsequent listening - a typical functional argument. It is quite unclear what is gained by dressing it in the grab of marginalism." (Simon, 1978, pp. 4-5).

[5] Cf Elster (1989, p. 74), Popper and Eccles (1983 [1977], p. 17), Kauffman (2008, p. 21).

[6] Cf. Popper and Eccles (1983 [1977], p. 18), Elster (1989, p. 74). Mayr (2007 [2004], ch. 4) distinguishes between *analysis* as the characteristic of the scientific approach and *reductionism* in this narrow sense.

clearer that the particular form of reduction suggested by the Table 1 – that is reduction of all science ultimately to physics – is unattainable[7] (a lot of ink has been spent particularly on the reduction of psychology to physiology). The most important argument is that of the existence of *downward causation* (the term is due to D. T. Campbell, 1974), i.e. the causal effect of the 'higher level' structure upon the 'lower level' elements. Is the argument of downward causation applicable to our particular problem?

Consider, for instance, (a social phenomenon) of institutional change. According to 'psychologicians'[8] it must be due to the changes in 'human nature'; this immediately raises the question about the causes of the changes of 'human nature' itself. A reductionist would look for the causes at the lower level. Is it perhaps a result of biological evolution? This answer seems implausible – the evolution operates too slowly to account for relatively frequent institutional changes. Moreover, it is sometimes argued that in fact human mind has not changed since Pleistocene, or – as Cosmides and Tooby (1997, p. 85) put it – "our modern skulls house a stone aged mind." Consequently, human mind is said to be maladapted to modern institutions.[9] The very idea of necessity to adapt mind to institutions, i.e. (according to psychologicians) to its own products which should obey no other laws than those derived from the laws of human nature itself, seems to pose serious difficulties to psychologistic program. If this argument is correct, social phenomena do not follow the laws of psychology but on the contrary – they shape human mind. The idea that mind is a product of biological evolution only and cultural evolution is a product of mind (as implied by table 1) is thus probably wrong: it rather seems that mind is a product of *both* biological and cultural evolution.[10]

To put it even more radically, it seems more correct to think of the 'social' as prior to the 'psychological' than vice versa.[11] Thus, the top of the table 1 could be rewritten in the following way:

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[7] Cf. Kauffman (2008), Popper and Eccles (1983 [1977]).

[8] This term denoting an adherent of psychologism is due to Wood (1994), cited in. Long (2004).

[9] Cf. also Hayek (1990 [1988], p. 19ff.) who argues that natural man is unsuited to the extended social order.

[10] Cf. Hayek (1990 [1988] p. 22).

[11] "[…] we have every reason to believe that man or rather his ancestor was social prior to being human." (Popper, 1966 [1945]). Cf. also Hayek (1990 [1988] p. 17).

Psychology
↑↓
Social sciences
↑↓
…

Table 2

It is rather curious thing that the 'social' is usually considered to be a 'higher level' with respect to the 'psychological' considering the fact that individual *psyche* as we know it, must have had evolved long after some institutions were operative.[12] This can be explained by the overemphasis of the obvious and for our topic irrelevant fact that social collectives must always presuppose the existence of individuals. Admittedly, as an argument against the primacy of the social over the psychological it can be pointed out that human beings *can* consciously reform or even create institutions; nonetheless, invalidity of this argument will become obvious, when we realize that by the same line of reasoning we would have to admit that physical or chemical phenomena belong with respect to the psychological to the 'higher level' as well: are we not able, for example, to synthesize chemical compounds that cannot be found in the nature?

So far, the argument was that there is no simple one-way causality from the 'psychological' to the 'social'. It refutes the idea that the 'social' can be reduced to the 'psychological', nonetheless it does not establish the *independence* of the former from the latter. The second argument, which perhaps can remedy this, is that social phenomena are *not an object of individual choice*; rather, they emerge from the interactions among individuals, whereas each individual has only a limited power to influence them. It is precisely for this reason that psychology is irrelevant to social theory: explaining why someone chose what he did is of no help in explaining phenomenon that no one chose. To put the matter from a bit different perspective, it may be said that the problem of individual behaviour is always *technological*: it is always the problem of choosing appropriate means to attain given ends. As was observed by von Neumann and Morgenstern (1955 [1944], p. 9ff.), the problem dealt with in theoretical social sciences is different from this: here the technological problem is of no interest. It is of course not denied that individuals pursue their ends (and thus solve their technological problems); however, the crucial problem of the social sciences is that *different individuals pursue different ends, which are sometimes incompatible (and sometimes enhance) each other*. More technically, individuals maximize their objective functions while *none of them has the control of all the variables and hence of*

[12] Cf. Pavlík (2004, pp. 502-505) for an argument that language must have evolved before purposeful behaviour.

the final outcome of the interaction. This, as von Neumann and Morgenstern point out, is a different problem than that of optimization; it is rather problem of coordination. The task of the social sciences is then to explain how the coordination of these mutually dependent individual ends or plans occurs through a *spontaneous* emergence of institutions; the particular case of economics is concerned with the coordination through the institution of market.[13] Admittedly, the process *can* be viewed as economizing; but it is economizing without an economizer.[14] The phenomenon of emergence of institutions without conscious design is usually called 'spontaneous order'.[15] In the next section I attempt to clear up some ambiguities around this concept.

III. Spontaneous order

Although the idea of spontaneous order is nowadays getting more and more precise contours, there remain some misunderstandings that must be clarified. I address here three questions: (i) Does the theory involve political implications? (ii) Is it appropriate to describe it as a study of unintended or (iii) unwanted consequences of actions? I discuss them in turn

First of all, the idea of spontaneous order has historically involved two independent statements that have been mixed together:[16] (i) there is an order in society, which is neither designed nor controlled by human mind (it is 'natural' as the pre-classics and classics would have put it); (ii) this order cannot (or can only rarely) be improved upon by deliberate action (who would dare to claim that his wisdom is greater than that of the 'Nature'?). While the first statement establishes social *science* (as distinct from an *art*), the second is *'instrumental'* or *political* stating that spontaneous processes are more efficient means to achieve welfare than a deliberate action and is the basis of classical liberalism[17] and

[13] Lerner (1972, p. 259), alluding to the fact that market institutions coordinate (sometimes conflicting) human activities, remarked that the domain of economics is 'solved political problems'.

[14] I believe that my argument here is akin to Buchanan's (1979), who famously criticises Robbinsian conception of economics. He argues that economists should deal with exchange rather than allocation of resources. He also explicitly writes that the "theory of choice must be removed from its position of eminence in the economist's thought processes." (Buchanan, 1979, p. 26). Nevertheless, only thus far can Buchanan be considered as our ally. He did not manage to divorce from psychologism and continues to assume that a theory of behaviour must remain the basis of economics.

[15] The idea of the spontaneous order is very old: it was expressed already by Vico (2002 [1725]) and Mandeville (1988 [1732]), if not earlier. The term seems to have been coined by Comte (cf. Udehn, 2001, 358-359n) For the development of the theory of spontaneous order cf. e.g. Hayek (1967, ch. 6), Barry (1982) and Pavlík (2004), who besides philosophical reflection of the concept also discusses its development in the field of natural sciences.

[16] Cf. Kirzner (1982).

[17] These two meanings of the idea of spontaneous order, not yet distinguished in the Smith's *Wealth of Nations* explain why he can be considered a founder of both, the economic science and the political doctrine of liberalism.

conservativism. It degenerated in what is now known as the first theorem of welfare economics, i.e. the statement that Walrasian equilibrium is Pareto efficient. Since the most criticism of the 'invisible hand' focuses on the (ii) it should be stressed that the statement (i) does not imply the statement (ii) and wherever I speak of spontaneous order I have in mind (i) only.[18]

Second point that needs to be mentioned is that the spontaneous order has been sometimes identified with 'unintended (unanticipated) consequences of actions' (Hayek, 1942; Merton, 1936)[19]; this term, however, is unfortunate and apt to cause misunderstandings. If we take it too literarily we get into difficulties. For assume that an action a has consequences c_1, c_2 and c_3. The intention of the agent was to cause c_1, and so c_2 and c_3 are consequences which were unintended. Now if a social science professes to study 'unintended consequences', the object of its study should therefore be c_2 and c_3. Now what if the agent had in mind bringing about the consequences c_2 and c_3? Would these cease to be object of social sciences whereas c_1 would become one? Why should it matter which of the consequences was intended by the agent and which not? This notion, which actually reduces to Bastiatian maxim that we should account not only for 'what is seen' but also for 'what is not seen', does not in my opinion appropriately convey the idea of spontaneous order. It seems more precise to think of the spontaneous order in the following way: there are n individuals and a consequence c is a compound result of their actions a_1, …, a_n. Thus, instead of 'unintended consequences' of actions we should speak (as we did in the previous section) of phenomena that arise from *interactions* among individuals and, secondly, that are characterized by the fact that each individual has only *limited power to influence them*. This is admittedly clumsy description but as I believe more accurate.

Third point is closely related to the previous two; spontaneous order is sometimes also referred to as '*unwanted* results of human actions (Popper, 1966 [1945] and Schelling, 1978, who captures the idea without using the term). This again, is not the concept with which theoretical social sciences are (or should be) concerned. First (and less importantly), this idea is connected rather with instrumental considerations, i.e. the *art* of economics, than with a *theoretical* science. If the outcome of an interaction is something that none of the individuals would choose (such as in the Prisoner's Dilemma), then naturally the question arises, how to create mechanisms how to avoid this Pareto-inferior outcome. Second (and more important) objection is this: since the cultural evolution is a process, which individuals barely understand – it occurs, as it

[18] In passing, let me mention that Menger, Hayek or Popper *did* think that spontaneously emerged institutions can be improved by a deliberate action; this in fact make them classical liberals rather than conservatives.

[19] Nevertheless, Hayek notes that his position is not identical with Merton's. Cf. Hayek (1967, p. 100n).

were, 'behind their backs' –, the *individual valuations of alternatives are irrelevant*. This is somewhat against the common notion that utility and welfare are crucial concepts of economics; however, in the studies of spontaneous orders, it seems that there is no escape from conclusion that these concepts are useless. The criteria of selection in evolution must be necessarily *objective*. The institutions are not selected according to individuals' subjective preferences but rather individuals are selected according the institutions they follow.[20]

IV. Psychologism and methdodological individualism

Social scientists' (and economists' in particular) preoccupation with individual behaviour seems to be inseparably connected with their adherence to the principle of *methodological individualism*. Hence, it remains to answer the following question: do we by refuting psychologism also refute methodological individualism? As we shall see, not necessarily. The fact that two leading proponents of the concept – Hayek and Popper[21] – were critical to psychologism should alert us that individualistic method need not imply psychologism, let alone that the two are identical. One way how to put it is that there are two types of individualism: *psychologistic* and *institutional*.[22] However, it is very tricky to show that a social science can be both *individualistic* and at the same time *not psychologistic* (i.e., not about behaviour) and also that such a science can be *not psychologistic* and at the same time *not holistic*[23] – or, to put it simply, that institutionalism can also be a form of individualism. It must be admitted that both, Hayek and Popper failed to provide convincing examples how such a science should look like.[24] This has been also the source of the great confusion in the consequent debate on methodological individualism, when the critics of the concept actually (correctly) criticized psychologism and at the same time some of the proponents occasionally slipped into psychologistic formulations.

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[20] Cf. Hayek (1990 [1988], p. 14).

[21] It should be mentioned that neither Hayek nor Popper is the author of the term methodological individualism; the term is usually said to originate with Schumpeter (1970 [1908]) (Cf. Machlup, 1951), although Agassi (1975) attributes it (probably incorrectly) to Mises. The individualistic approach to social phenomena itself is of course much older.

[22] The distinction between institutionalism and psychologism is due to Popper (1957, 1966 [1945]). The dichotomy partly coincides with Hayek's distinction between 'true (antirationalistic)' and 'false (Cartesian or rationalistic) individualism' (Hayek, 1972 [1948], ch. 1), the latter being characterized by what Hayek calls 'engeneering type of mind' or 'rationalist constructivism' (or 'constructivist rationalism', or simply 'constructivism') (see e. g. Hayek, 1967, ch. 5). More precisely, constructivism is an exaggerated form of psychologism (Cf. Agassi, 1960, p. 251ff.).

[23] Although it was the term 'methodological collectivism', which was originally used as a counterpart to 'methodological individualism', it has become more common to use 'methodological holism' instead. Some authors (e.g. Goldstein, 1956; Agassi, 1960, Udehn, 2001) make a distinction between the two; I will try to avoid the use of these terms and when necessary I will use them interchangeably.

[24] This is understandable since – as it has correctly been remarked – philosophy of science is an attempt to anticipate the results of future research, or, in fact, of the state when the research is finally completed (Brodbeck, 1954, p. 141).

Perhaps the best thing to do now would be to drop the misleading term 'methodological individualism' completely;[25] it is not only due to the fact that it will almost certainly be confused with psychologism but also with *atomism* (the idea that individuals are independent from society) or *ethical* (and *political*) *individualism*.[26] Moreover, it must be remembered that the term was introduced by Austrian scholars also in reaction to approaches such as Othmar Spann's universalism[27] and – since the heyday of these approaches seems now to be gone – it is questionable whether it is useful. On the top of that – and most importantly – as it is argued below, there is not much difference between most of those who call themselves holists and (non-psychological) individualists. Nevertheless, if an alternative term is needed I suggest to stick to Popper's term 'institutionalism'[28] (as a counterpart to psychologism) and, as a counterpart to methodological holism or collectivism, it seems appropriate to adopt Menger's term 'compositive method'[29], which Hayek uses interchangeably with the term 'individualistic method' and which is less apt to being misinterpreted.

We now proceed in two steps: first, some evidence is given that Hayek and Popper were institutionalist rather than psychologistic individualits; then it is shown, how in the subsequent debate on individualism and holism the difference between the two concepts became unclear and how it resulted in a muddle where both sides were unable to trace the points of their departure.

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[25] This has been suggested also by Hodgson (2007). It is also interesting to mention here that in his review of Hayek's Individualism: True and False Harrod (1946, p. 439), when addressing Hayek's position, asks: "But what has all this to do with individualism?"

[26] The independence of the individualistic method of the individualistic ethics was already stressed by its early proponents; Weber writes: "Das ungeheure Mißverständnis jedenfalls, als ob eine „individualische" Metode eine (in irgendeinem möglichen Sinn) individualische Wertung bedeute, ist [...] auszuschalten." (Weber 1972, s. 9); and Schumpeter: "The reader is asked to bear in mind, first, that our question is a purely methodological one and has nothing whatever to do with the great problems of individualism and collectivism;" (Schumpeter 1909, p. 213). In fact, Schumpeter introduced the epithet 'methodological' to distinguish individualism as a type of analysis form the individualism in politics and ethics. However, one cannot overlook that the groups of advocates of methodological and political individualism almost (if not fully) coincide, as do the groups of methodological and political collectivists (as expressed in the old cliché that 'sociologists are socialists'). This gives some support to the view that the differences among political doctrines might be to a great extent differences in theoretical conceptions of society rather than in values.

[27] Cf. Mises (2003 [1933], p. 42ff.).

[28] To an economist, the label 'institutionalist' perhaps still evokes a member of Veblen-Commons school; here the term is used in much broader sense denoting an approach which focuses on institutions rather than on the laws 'human nature'. The view defended here has much in common with the 'new institutionalism' as represented for instance by Coase (1998).

[29] It is to note that a similar term, viz 'compositionism', is used in biology in a similar sense. Cf. Simpson (1961) cited in Mayr ((2007 [2004]).

Hayek was well aware that social sciences are not sciences of behaviour but of the spontaneous order (or 'unintended consequences' of behaviour as he sometimes called it):

> "It is a mistake, to which careless expressions by social scientists often give countenance, to believe that [the] aim [of social sciences] is to *explain* conscious action. This, if it can be done at all, is a different task, the task of psychology. For the social sciences the types of conscious action are data and all they have to do with regard to these data is to arrange them in such orderly fashion that they can be effectively used for their task. The problems which they try to answer arise only in so far as the conscious action of many man produce undesigned results, in so far as regularities are observed which are not the result of anybody's design. If social phenomena showed no order except in so far as they were consciously designed, there would indeed be no room for theoretical sciences of society and there would be, as is often argued, only problems of psychology. It is only in so far as some sort of order arises as a result of individual action but without being designed by any individual that a problem is raised which demands a theoretical explanation." (Hayek, 1952, p. 39)

Popper, who probably adopted the concept of spontaneous order from Hayek, is a bit more eloquent on the topic:

> "In passing I should like to mention that neither the principle of methodological individualism, nor that of the zero method of constructing rational models[30], implies in my opinion the adoption of a psychological method. On the contrary, I believe that these principles can be combined with the view that the social sciences are comparatively independent of psychological assumptions, and that psychology can be treated, not as the basis of all social sciences, but as one social science among others." (Popper, 1957, p.142)

Popper further characterizes methodological individualism as a "quite unassailable doctrine that we must try to understand all collective phenomena as due to the actions, interactions, aims, hopes, and thoughts of individual men, and as due to traditions created and preserved by individual men." (*op. cit.*, p. 157) He also claims that the belief that "'methodological psychologism' is a necessary corollary of a methodological individualism" is "false" (*op. cit.*, p. 157) and that the method of social sciences is "*not* a psychological but rather a logical method" (*op. cit.*, p. 158, italics are his). He also provides very appropriate example of this, suggesting that the crucial problem of social sciences is incompatibility of individual plans:

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[30] By the 'zero method' Popper means the "method of constructing a model on the assumption of complete rationality (and perhaps also on the assumption of the possession of complete information) on the part of all the individuals concerned, and of estimating the deviation of the actual behaviour of people from the model behaviour, using the latter as a kind of zero co-ordinate." (Popper, 1957, p. 141).

> "…although some people may claim that a liking for mountains and solitude may be explained psychologically, the fact that if many people like the mountains, they cannot enjoy solitude, is not a psychological fact; but this kind of problem is at the very root of social theory." (*op. cit.*, p. 158)

The reasons why he denies psychology as the basis of social science are thus following: (i) 'human nature' varies considerably with the social institutions and (ii) social sciences are largely concerned with spontaneous order. We have addressed both arguments already in the section II.

Later, Hayek's and especially Popper's[31] anti-psychologism seems to have become even stronger – to the extent that it is sometimes argued that they abandoned methodological individualism (e.g. Udehn, 2001, p. 120 and pp. 204-205). The argument is that in their later writings they stopped using the term completely. In the case of Hayek, this is not true: he occasionally uses it[32] without ever giving the impression of abandoning the principle. My explanation why Hayek stopped using the term frequently is that he (thanks to Popper) realized that he was actually a methodological monist of a kind[33] – and attempted to express his views in terms of general method of science, rather than in terms specific to social sciences.[34] As far as Popper is concerned, he indeed seems to have abandoned the term; however, we must remember that he was much more concerned with natural sciences than with social sciences. On the rare occasions when he did write about the method of social sciences, he does not seem to have abandoned his views expressed in the *Open Society* and the *Poverty of Historicism*.[35]

Let us now turn to the debate on methodological individualism that was sparked off with J. W. N. Watkins' paper *Ideal Types and Historical Explanation* (Watkins, 1952a) and it was also this Popper's student who most vigorously participated in it.[36] On the side of the critics of the concept were a philosopher of science M. Brodbeck (1954, 1958), anthropologists E. Gellner (1992 [1956]), L. J. Goldstein (1956, 1958, 1959) and a sociologist M. Mandelbaum (1955, 1957).[37] My thesis is that this stage of the debate suffered from the inability of the

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[31] I refer here to his concept of 'World 3' which is discussed below. Hayek's theory of group selection is also usually considered incompatible with his methodological individualism.

[32] Cf. Hayek (1978, pp. 276-277) and especially his preface to an extract from Schumpeter's Wesen und Haupinhalt (Schumpeter, 1980).

[33] Cf. Hayek (1967, p. viii).

[34] An example of this attempt is the paper Degrees of Explanation (Hayek, 1955, also included in Hayek, 1967).

[35] Cf. Popper (2002 [1963], 1994).

[36] Cf. Watkins (1952b, 1955, 1957, 1958, 1959a, 1959b).

[37] Some of these (and also some other) contributions to the debate can be found in O'Neil (1992 [1973]). Excellent source on the whole debate is Udehn (2001).

participants to distinguish between methodological (institutional) individualism and psychologism. As Gellner (1992 [1956], p. 261n) put it:

> "When, in the articles discussed [i.e. those of Watkins'], 'methodological individualism' is worked out more fully than is the case in Popper's book, it seems to me indistinguishable from 'Psychologism'."

First, he is right that the criticism of psychologism is not elaborated in detail neither in the works of Popper nor in those of Hayek, for they focused more on their opposition to holism.[38] The elaboration and reinterpretation of methodological individualism by Watkins shifted the meaning closer towards psychologism, so Gellner is also right in saying that – as a result of this shift– the two became hardly distinguishable. Goldstein (1956, p. 806n) makes similar point as Gellner:

> My own view is that methodological individualism cannot be separated from psychologism, but Professor Popper advocates an individualistic sociology which is autonomous (an incongruous position which Mr. Watkins, in his recognition of the psychologistic nature of his thesis, has been consistent enough to avoid […]).

While Watkins' opponents dubbed him a psychologician, he himself explicitly refused the label;[39] on the other hand, he also refused *autonomy* of the social phenomena probably because he thought it equivalent to ascribing non-human origin to these phenomena and therefore accepting the position of ontological (and consequently methodological) holism.[40] Considering the fact this position of his is contradictory (since one has to accept either psychologism or the autonomy of social phenomena) he was forced into psychologistic position:

> "…large-scale social phenomena must be accounted for by the situations, dispositions and beliefs of individuals. This I call methodological individualism." (Watkins, 1955, p. 58)[41]

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[38] Nevertheless, Hayek (1972, [1948], p. 6) writes: "This argument is directed primarily against the properly collectivist theories of society which pretend to be able directly to comprehend social wholes like society, etc., as entities sui generis which exist independently of the individuals which compose them. The next step in the individualistic analysis of society, however, is directed against the rationalistic pseudo-individualism which also leads to practical collectivism."

[39] He was able to do so by narrowing the meaning of the term: "Psychologism says that all large-scale social characteristics are not merely the intended or unintended result of, but a reflection of, individual characteristics." (Watkins, 1957, p. 112).

[40] Cf. Watkins (1959a).

[41] Watkins has in mind dispositions of anonymous individuals, which allow only for 'explanations in principle' (as opposed to 'explanations in detail').

> "All social phenomena are, directly or indirectly, human creations. A lump of matter may exist which no one has perceived, but not a price which no one has charged, or a disciplinary code to which no one refers, or a tool which no one would dream of using. From this truism I infer the methodological principle which underlies this paper, namely, that the social scientist can continue searching for explanations of a social phenomenon until he has reduced it to psychological terms." (Watkins, 1952a, p. 28-29)

It can be argued against Watkins that although social phenomena are indeed of human origin, they possess attributes that are *independent* on human mind. For example, there are profit opportunities that *objectively* exist whether they are perceived or not. These opportunities are *discovered* by entrepreneurs rather than *created*.[42] Also, there are actions that are objectively illegal, no matter whether anyone has ever undertaken them or not. Later, it will be argued that these (and some other) phenomena – although they are clearly not 'physical' – should be considered as non-psychological.

Another Popper's student, who at a later stage joined the debate – J. Agassi – realized the importance of distinguishing institutional and psychologistic individualism. In his contributions[43] (which in my opinion belong to the best what the debate can offer) he acknowledged closeness of views on the both sides of the controversy and pointed out that individualism and holism are incompatible when interpreted in the light of the following proposition: "*If* 'wholes' exist *then* they have distinct aims and interests of their own." He then attempts to refute this proposition. The distinction between psychologism and institutionalism was also preserved by Agassi's student, L. Boland. Nevertheless, Boland's continues to believe (together with psychologicians as we understood the term here) that the task of economics is to explain individual choices (Boland, 1992, p. 147).[44]

Further elaborations on the topic do not bring any substantial breakthrough; some of them are not even much aware of the earlier contributions.[45] Nevertheless, there is one debate among these which is relevant for us; it emerged – perhaps somewhat surprisingly – in the Marxist camp. It was initiated by Jon Elster's (1982) suggestion to employ the game theory within Marxism. To bring the game theory into the debate seems to me very significant point: here we have a widely accepted framework which is both, individualistic

[42] This position, however, does not imply determinism.

[43] Agassi (1969, 1975).

[44] He then defines psychologism as the "view that in any explanation (individualist or otherwise) the only exogenous givens other than natural constraints allowed are those representing psychological states of either individuals or groups." (op. cit. pp. 145-146).

[45] To give one example out of many, Nozick (1997 [1977], p. 116) asks "…why aren't we [besides being methodological individualists] equally methodological institutionalists?" neglecting the fact that institutionalism is exactly what Popper suggested.

and (at least to some extent) non-psychological;[46] [47] Popper's terms 'institutionalism' and 'logic of situation' (or 'situational logic') seems to fit this discipline[48] as well as does the Menger-Hayek's term 'comopositive method' – and I venture to say that this may be the kind of theory they have had in mind.[49] Admittedly, game theory *can* be viewed as an extension of behavioural theory;[50] nonetheless, considering the earlier mentioned von Neumann's and Morgenstern's assertion that problems of interaction are different from the problems of individual behaviour, one can also interpret it non-psychologically.

IV. Social phenomena as 'World 3' objects

In this final section I attempt to clarify further the difference between the 'social' and the 'psychological' phenomena by interpreting it in the light of Popper's cosmology. To begin with, it must be pointed out that much confusion arises from the view that there is a dichotomy between the *physical* (*material*) and the *psychical* (*mental*); this view is especially misleading when the dichotomy is denoted by the terms *objective* and *subjective*. For there is a third class of phenomena which seems to belong (in a sense) to both of these categories – it contains objects that are *not physical* but at the same time *are objective* (i.e. independent whether are subjectively perceived by someone or not). This class of phenomena was called by Popper 'World 3'[51] and contains scientific knowledge, art, language, etc.

My suggestion is that economic (and in general social) phenomena can be understood as World 3 phenomena as well. Psychology, on the other hand, is concerned with phenomena of what Popper calls World 2. In the previous section I mentioned profit opportunities that exist whether they are perceived by entrepreneurs or not as an example of a non-psychological phenomenon. Further example would be what seems to me the crucial problem social sciences have to deal with: incompatibility of plans. A 'plan' is an objective concept in the sense that it can be described in terms of quantities and ratios of inputs it

[46] However, Nozick (1997 [1977]) suggests that the game theory is at variance with the principle of methodological individualism. This only gives further evidence to my earlier claim that this term has become next to useless.

[47] It is also fair to mention here that Elster himself is both, psychologician and reductionist (Cf. Elster, 1989, p. 73ff.).

[48] Compare Elster's (1989, p. 28) remark that game theory is "more akin to logic than to an empirical discipline."

[49] To support this thesis I may mention Gombrich's (1974) 'situational analysis', of fashion praised by Popper (1974), which is nothing but a rudimentary application of the game theory. Compare it e.g. to Pesendorfer (1995). Further, Böhm-Bawerk's model of horse market, which is sometimes considered as almost paradigmatic example of the compositive method (Pavlík, 2004), is also an example widely discussed by von Neumann and Morgenstern (1955 [1944]).

[50] This interpretation was endorsed e.g. by Harsanyi (1966).

[51] See Popper (1979 [1972] ch. 3). He also points out that similar views as his were advanced by Plato, Hegel, Bolzano and Frege. Especially Frege's views are here of interest because he was a critic of psychologism in logic.

requires:[52] for example, let there be a total supply of $\bar{x}$ units of an input X and two plans requiring x' and x'' units of the input X, respectively; the two plans are incompatible if $x' + x'' > \bar{x}$. The objectivity lies in the fact that this holds irrespectively what acting individuals think.

This autonomy of social reality does not mean that it has life of its own or that it is determined exogenously, outside the actions of individuals. It *does* result from individual actions. The point is that one action creates constraints (or opportunities) for other actions. If the result of these interactions is an order which is not consciously designed, we have a theoretical problem which requires an explanation; and what is important, the study of this order cannot be approached from the point of view of psychology of interacting individuals, who are very often unaware of its existence.

V. Conclusion

In this paper I criticized psychologism in economics and other social sciences; however, it should be pointed out that I, of course, have nothing against studying behaviour *per se*. In fact, I share with 'psychological economists' their attitude that those who are concerned with explaining behaviour should pay attention to psychology. Thus, this paper can be read as suggesting that the traditional division of sciences is inadequate: the problems of individual behaviour and of spontaneous order are of different characters and should be treated in separate disciplines. Which of these disciplines should retain the label 'economics' is surely immaterial; in fact, given its etymology, both of them might welcome to give it up completely.

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[52] It is of course 'subjective' in the sense that it is a mental and not physical concept.

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