The epistemology of the strong program in sociology of knowledge

The strong program in sociology of knowledge, put forward by a group from the University of Edinburgh, is considered to be one of the most radical versions of social constructivism in sociology of knowledge (Zybertowicz 1995, p. 23). The methodological programme of the so called Edinburgh School, with its famous postulates of the symmetry, objectivity, causality and reflexivity of any explanation of social phenomena (Bloor 1976, p.5), was widely and fiercely discussed in seventies and eighties (Mokrzycki in Strong Program, 1993, p. VIII). In this text, however, I will turn my attention to another interesting aspect of the school’s programme – its epistemological position.

The main issue of interest to the creators of the strong program is the possibility of objective cognition. I would like to concentrate on two basic questions that they formulate; is objectivity in cognition possible at all and, supposing it is, is it possible to distinguish how objective the cognitive processes are? Consequently, epistemological positions can be, for the sake of clarity, divided into two groups; those in favour of objective cognition and those denying its possibility.

When analysing a theory of cognition, it is useful to ask questions concerning the most specific points of that theory. I propose to reflect on the following issues; sources of cognition, characteristics of knowledge as a product of cognition, attitude towards language and communication and, finally, the notion of truth in the theory of Edinburgh school. The last one will, in fact, provide the best opportunity to catch what is most important in the conception discussed.

I. Sources of cognition

Let us begin with a more intuitive and earlier epistemological position, which I call, after Andrzej Zybertowicz, an “objectivistc model of cognition.” The question of sources of cognition in this model is settled clearly in favour of sensual experience. One should not, however, put his trust fully in experience. The rule was – and is – simple; the smaller the amount of trust put in the senses, the greater...
the need to work out the means to help humans overcome the imperfections of empirical material at their disposal.

Overcome – but in a pre-settled manner and on a prescribed basis. It is obvious that some ontological position is a necessary premise of the thesis that objective cognition possible. It seems to me quite reasonable to assume that some version of materialism is a suitable ontology for an objectivist. Materialism allows us to take for granted the existence of objective sources of sensual data – which, in consequence, makes it possible to pass from discussing the cause of cognition to reflecting on the way that cause functions. Objectivism, based on materialistic ontology, is therefore an attitude most favourable to epistemological interest. I do not want to say that an objectivist cannot share any other ontological option – examples of good coexistence of objectivist epistemology with various ontological approaches are too numerous in the history of philosophy. Nevertheless, having narrowed the field of research down to contemporary philosophy and methodology of science, we must admit, that materialism is a view most widely spread (Kaluszyńska 1998, p.20).

Returning to the question of overcoming the limitations of sensual cognition, we should take into account what is commonly named, after phenomenologists, the “natural attitude” of a human being toward the world. The term, introduced by E. Husserl, made his great tourneee through sociology especially thanks to A. Schutz. Husserl replaced his “world of natural attitude” with a much more popular Lebenswelt (Judycki in Guide to Philosophical Literature, 1995, p.200) – and put this term in the centre of his reflection in “The Crisis of European Science”, but not only there.

Lebenswelt in phenomenological analysis appears to be a sphere given in an unrelated, eye-to-eye way to the subject of cognition in the middle of it. The dominating feature of the Lebenswelt is the feeling of obviousness of the world – every experience is related to the petrified structures of the world perceived. As a result, people in action tend to follow so called “good sense”, an element of it being an indisputable opinion, that the world seems obvious, because it is as it seems – not as an effect of a mistake or mischief. Hereof stems the tendency to objectivise the reality of everyday life, described brilliantly by P. Berger and T. Luckmann. An approach of Edinburgh school is very close to that presented in “Social creation of reality” (Barnes 1974, p.2). The world of natural attitude has one more propriety – it inhales the products of human objectivising activity. They pass a sort of sedimentation, becoming as stable elements of reality as chairs or handkerchiefs. And this is true for technology, science and other forms of practical activities (Judycki, 1995, p.201). So, when turning towards reality, a human being is, in fact, moved by a strong presupposition, that the world is somehow organised (Bloor 1976, p. 36) – which is, to some extent, correct, because the part of the world within human reach is structured as a conglomerate of the products of his activity. Feelings of anxiety and strangeness of the world is somehow secondary and appears mostly to limit the field and settle the requisites of a cultural game (Zybertowicz 1995, p.140). The strong program seems therefore to have solved the
old problem of difference between the natural (without any inner structure) and
social (human-like structured) (Soin in *Guide*, 1995, p. 369). The very ground of
argument is removed together with a notion of “sense” as some added value. We
are left with the previously accepted scheme of a natural attitude but without any
specific reality of the everyday world, which is being perceived as a *par excellence*
reality.

The importance of the above mentioned problems for epistemological reflection
is well stressed by Berger and Luckmann claiming the reality of life to be fully
determined by a pragmatic motive. Pragmatism of a standardised individual is
visible in his or her employing any strategy of action which is likely to make the
acting easier and more efficient. Even more clearly does this view inspire the thesis
of Edinburgh school considering knowledge to be “all the useful and efficient
beliefs”. However, talking about various approaches towards the sensual data we
can also notice that what Barnes calls “cognitive laziness” (Barnes in *Strong
Program*, 1993, p.118) is not to be underestimated as a factor deciding that we
choose this very source of cognition and no other.

An unreflecting individual then pre-assumes naturally that his or her cognition
is objective. Holds his or her cognitive powers valid, their results correct –
reflecting what really exists. Let us pay attention to that word. It is in my opinion
impossible to imagine objectivism with no references to some relation determining
an adequacy between reality and the contents of our cognition. The notion of
“truth” according to Barnes and Bloor, makes it possible to built a coherent relation
between the two worlds: the supposed “real” one and the one of our experience.
The truth is used as a criterion to evaluate cognition – a sort of artificial normative
reference.

It is worth mentioning that, in spite of all that was said above, objectivism is not
only an epistemological “basic instinct” even though it certainly is basic in so far
that any other approach requires us to leave the magical world of the natural
attitude. The less subtle form of objectivism, an ancient one, did receive its portion
of critics almost at its very birth – and was criticised thoroughly and proficiently
(Krokiewicz, p. 248). Sceptical critics did not, however, destroy objectivism and its
belief in senses as a reliable medium between us and the world. Growth of
consciousness, which we would now call “methodological” consciousness, brought
scientists and philosophers to work out more and more strict conditions, that must
have been fulfilled by an objective cognition. All that process belongs now – in
major part at last – to the history of science. The result is what we can ourselves
observe. The set of restrictions of our cognitive processes is now so composed, that
no individual can dare to gain some objective knowledge of the world. The one
ture subject of objective cognition is scientific thought collective and the only
objective cognition is scientific one. That is the point to which Carnap, Popper,
Lakatos and Kuhn himself got in their attempt to explain the way science functions
without crossing the line separating scientific and non-scientific.

From the objectivist point of view, almost every specific feature of scientific
cognition is different from that of a non-scientific, meaning first of all the role of
method and procedures, but there is one crucial link: the ontology. In its most classical version scientific objectivism affirms, that the reality cognised by an everyman is the same, which is recognised by a scientist – differences concerning the level of generalisation, validity of explanation, in a few historic theories also the aim of explaining. The latter is worthwhile indeed. The objectivist-scientist does not question the role of pragmatic motives in everyday life – he only claims that there is a possibility to get to know reality in a way independent of the subjective motivation. It does not – in my opinion – matter as much, whom do we pose as a subject of such a privileged cognitive process – one scientist, if only attentive enough, or even all the science itself, as a discourse with its proper rules, providing it with virtues of objectivity and adequacy (See Popper 1997, p.81-82).

A scientific – objectivist is allowed to stay by his natural attitude, to take the world as it is, being at the same time positive that the right savoir-faire gives the right outcome. He or she accepts science for the sake of his or her “conceptual scheme”, along with the burden of rules internalised. It is, in the end, indispensable to take for granted a vicious circle of definition of

What I sketch here is a silhouette of a XIX- century’s scientist a la A. Comte. The model seems to be no longer valid, the picture of science had lost the grotesque sharpness of contours. The Edinburgh school is fighting against an enemy long ago defeated, buried and forgotten (Kałuszyńska 1998, p.18). It is, undeniably, interesting to show inadequacy of quasi-professional discussions in the bosom of scientific collective, showing kinship between lay and professional discourses about the world – as Bloor does in some of his books. It is interesting, although the arguments are not new, mostly negative and critical – paradoxically, with not much construction (Bloor 1976, p. 143). The value of sociology of knowledge can be fully appreciated in such very analyses, demonstrating links – sometimes of a very formal nature – between theories and practices apparently distant – even if the conclusions drawn are not very convincing. Both objectivisms: scientific and naive, search for factual substrate of cognition, and the accepted result of that research they call “knowledge”. The fact, that for a lay man an adequacy is what counts and for the scientist it is a method – does not spoil the comparison (Bloor 1976, p. 142).

Attention definitely should be paid to one more trick, used to save the objectivistic concept of cognitive process – I mean the notion of “rationality”. According to an objectivist, it should be a specifically human feature, characteristic of some human actions and reasoning. There are two ways to speak of rationality. The first one is referring to scientific point of view and rationality construed therein, as a part of a picture of science. The second one is a statistical one – rational is what a reasonable and well brought up man would do in circumstances existing. These two models of rationality could easily be associated with two basic stands concerning the rules of logic – the first would be classical, the second – psychological. As the concept of rationality is not directly connected with the theme of this part of the text, I would only like to mention it briefly.
Let us proceed towards the second part, concerning the constructivist model of cognition, inquisitively presented by A. Zybertowicz in his “Przemoc i poznanie” (Violence and cognition, pp. 108-121). The book does not say very much about the sources of cognition, perhaps due to the lack of deep differences between objectivism and constructivism on that point.

Strong program accepts the sensual stimulation as a factor of cognition (Barnes and Bloor in Strong Program 1993, p. 13). It would draw that any cognitive process is necessarily based on sensual experience. The basis is, however, only accepted by means of the good reason – its acceptance cannot be empirically justified.

The main source of the radical relativism of Edinburgh school is probably the intuition, that the particular subjective experience, to become a part of any reality different than that of individuals inner-life, must be first of all verbalised or – less strictly – communicated. What the school is mostly interested in is not an experience, but the way it is conceptualised and transmitted (Barnes and Bloor in Strong Program 1993, p. 21). It is probably a consequence of unexpressed belief that there is an analogy between the whole of a culture and the structure of individual’s internal life. Analysing culture as a subjective reality leads us to the conclusion that culture can be perceived as a set of personality-forming rules (Sapir 1987, p.141). Strong program agrees – on that point like on many others – with late works of Wittgenstein, who acknowledged an unbreakable link between public life and mental life of an individual (Bloor 1983, p.84). If a language is par definition public (Wolniewicz 1968, p. 43), and is generating a form of life (Wittgenstein 1972, p. 20), for which members of society are being trained to prepare them to participate in definite language games (Wittgenstein 1972, p. 23), it is clear, that parallel between public and “private” mental life is a simple consequence of the premises taken – if we also identify thinking with using the language (Wolniewicz 1968, p. 39).

It should be, however, reflected on how the relation between culture and cognitive process of an individual goes on before the phase of social division of experience in communication. It is useful to reconstruct such a private experience in opposition to Edinburgh school as well as to Wittgenstein, because it could make it possible to solve the question of what is a real source of cognition according to the program.

The starting point is of course an individual sensual experience. We know nothing about the contents of experience as such. We may, however, tell how the problem looks like from formal point of view.

Human cognition is – due to the Strong program – structurising the amorphous reality (Zybertowicz 1995, p. 128). There is nothing like an access to the world without at the same time introducing into an experience some element of classification – which can be argued on the basis of numerous anthropological experiments. It is not, in any case, a revolutionary idea. Belief, that our cognition is always contaminated with a theory is at present a commonly shared one, at least in the field of social sciences (Domański 1999, p. 2).
I have allowed myself to identify the theory with a system of classification, of course in a most wide meaning of the term, not in a strictly methodological one. This is, in my opinion, the way Popper used the term, when writing about inevitability of founding empirical data on the theory (Popper 1992, p. 201). In the same meaning the representatives of the Edinburgh school speak of a theory – treating it as a metaphor for a phenomenon observed and claim that there is no perception without a metaphorical element (Barnes 1974, p.39).

The problem of classification occurs with an extreme sharpness in the context of analysing the educational process (or just socialisation). Barnes divides all such processes into two groups. The first one is connected with collecting data flowing from the physical environment (Barnes in Strong Program 1993, p. 95). This stage is fully epistemologically viewed and in accordance with good reason and beliefs of objectives. The second phase is internalising the modes of use of the classifications proper to a culture given by using its concepts and language terms (Barnes in Strong Program 1993, p. 96) – that is transmission of knowledge, based on the pre-assumption of a first, non-metaphorical level of communication. In a primary socialisation there is no place for question of frankness – knowledge is gained only together with a structure of legitimation (McDowell in Philosophy of Language 1993, p.45). But, the form of culture transmitted is not only a taxonomy (Barnes in Strong Program 1993, p. 97), for there is a strongly stressed definitional relation between knowledge and action, including all the human efforts directed onto a possibly efficient manipulating the reality (Barnes 1977, p. 12).

Individual classifications within a society are suppositions declaring what is real for the group in question. Reality is what is named, it depends on the way we use the language in various contexts (Nielsen in Rationality and the thought-style 1992, p. 362). Taking into account that there is no cognition beyond the borders of the language – Edinburgh school can do without the suppositions concerning an intersubjective and at the same time objective reality (Nielsen in Rationality and the thought-style, p. 363). Two things should be stressed: firstly, naturalism, declared by the school (Barnes 1977, p. 13), is not very coherent with the rest of their theses, and secondly – all the philosophy of the school is burden with domination of epistemology over ontology.

The conceptual scheme efficient as a tool of classification links all the relations of an individual with the world in a so called conceptual network (Barnes in Strong Program, p. 97) – or a net of rules (Mary Hesse’s term) (Bloor in Strong Program, p. 141). Objectively seen, reality is in that theory nothing more than a series of unspecified information, useless till they are verbalised, grouped, put into conceptual categories and made part of a net as a potential communicate (Bloor in Strong Program, p. 141).

The net of concepts, created in a social activity, can be reduced to social factors in reflection – which makes the sociology of knowledge possible. Consequently, the representatives of a Strong program claim that the greatest achievement of a Durkheimian school was to shed light on the analogies between social and natural order in primitive societies (Natural Order, p. 15), and as the central thesis of a
sociology of knowledge they hold that the classifications of objects are parallel to classifications of people (Bloor in *Strong Program*, p. 128). Bloor sees two main sources of human behaviour – ideas and social factors and he argues they should not be opposed, as ideas are fully redundant to social factors (Bloor 1976, p. 140). Society is responsible for a work made over a conceptual net during communication – it creates, corrects and develops the net (Barnes in *Strong Program*, p. 108). Independently on the state of the net, what is seen as a correct perception is determined by the systems criteria of classification (Barnes in *Strong Program*, p. 104). Therefore, the correctness of perception is dependent on social practice – is being decided on within the communicational consensus. Another evident similarity between the Strong program and Wittgenstein, who connected language with the form of life and its consensual character (Bloor 1983, p. 57).

Finally, we reach the conclusion, that society normalises the cognition by means of a language If the conceptual network is a theoretical product, it seems acceptable to say that in a certain culture – theory and cognition is one thing (Barnes in *Strong Program*, p. 117). There is, as a consequence, not only no direct expression of an experience, but also no direct access to an experience – even subjective one (Bloor in *Strong Program*, p. 140). On that point, Strong program disagrees with Wittgenstein, stating – even though with not much consequence, that one may know something one cannot say (Wittgenstein 1972, p. 57).

To sum up, I would like to repeat once more, that the program does not deny objectivity of some objects (Bloor 1976, p. 144). This does not contradict their traditionally understood cognitive relativism (Lukes in *Rationality and the Thought-style*, p. 325), protecting, at the same time, from absurd consequences (Kaluszyńska 1998, pp. 15-18). One thing advocated here is a radical methodological relativism (Bloor 1976, p. 142) – there is no objective theory. The source of cognition is a theory closed in a net of socially determined conceptual network and connected – by an undetermined causal relation – with a physical world.

**II. Knowledge and science**

Knowledge is an effect of a cognitive process – both an objectivist and a constructivist would agree. Science is – for an objectivist – a special, privileged kind of knowledge. Science is a sphere, where an adequacy of human cognition cannot be negated. As I have already mentioned above, only way to save the very idea of adequacy in face of sceptical critics was to limit it to the world of nature and sharpen the criteria.

Zybertowicz in his best known book gives an interesting *resume* of how the objectivism has been giving up following theses on reality. It took the form of transporting the relation into higher and higher levels of abstraction. In the beginning, adequacy of the world and words seemed acceptable (Port Royal for
example), later it seemed, that the world is described by suppositions (Frege and Wittgenstein), than by scientific theories, afterwards – by scientific paradigms (Kuhn), methodology of research programs (Lakatos) and – lately – by the science as a whole (Quine) (Zybertowicz 1995, p. 103). In spite of any justified reproach, the sketch has got two valuable elements. First, an idea of adequacy is always connected with a problem of describing a world – which is only possible, if we do not accept, that word and its designate are the same (Zybertowicz 1995, p. 219) (identity instead of adequacy), there is no problem of description. Secondly, thanks to schematic approach it can easily be noticed, that gradual elevating the composition of the description is somehow analogous to the development of scientific method. Both the processes are directed on support the objectivistic view. To achieve the goal, objectivism must divide all the human cognitive processes into two categories – scientific and non-scientific, together with the parallel division of products of cognition into two types of knowledge. Rationality, above mentioned, becomes the main scientific value – which is fiercely criticised by Edinburgh school.

Naturally, they are not first to do so. The greatest attempt of the kind was that of Kuhn (Barnes in Return of a great theory 1998, p. 110). His main opponents – logical empiricism and its critics like Popper (Amstredamski in Guide..., v. II, 1995, p. 212), are also among the opponents of the Strong program. Kuhn has pointed out two weaknesses of the positivist and Popperian vision of science: the concept of rationality and the concept of development of science, which can be reduced to admitting its cumulative character (Amstredamski in Guide, p. 213). The Structure of Scientific Revolution is close to the criticised normative approach in epistemology and explaining cognitive “mistakes” by referring them to some postulated correctness. Kuhn, when presenting the functioning of paradigms, stresses strongly their influence on the cognitive process. All that analysis is carried out from the strictly objectivistic standpoint and is based on the difference between actual and desired scientific procedure. The term “paradigm” has also, among its numerous meanings, not only the sociological or methodological, but also the epistemological one. Putting into question the level of realised rationality confronted to declared state of affairs, Kuhn does not question legitimacy of a very notion of rationality. However, rationality is only ancilla of scientific pragmatism – which is the best example of Kuhn’s instrumentalism. Barnes, in his book on Kuhn and his theory, claims that he was really an apologist of science, an ideologist of the knowledge true in spite of its imperfect birth (Barnes in Return, p. 138).

Kuhn’s thought seems no longer revolutionary (Barnes 1982, p.51) and so called “war around Kuhn and Feyerabend” can be now perceived as one battle in a great campaign, which R. Rorty brilliantly baptised “Discussion, whether a science about nature is a natural category” (Rorty 1999, pp. 73-74).

Both arguing sides share one set of enthymematic premises. The start-up was the thesis, that “science” is a name of natural category – a sphere that can be delimited by one (or not more than two) characteristics: procedure and attitude
towards reality. Scientists, who acknowledged the possibility of precise demarcation of scientific field, usually acknowledged as a specific character of human rationality as well. Science, as a form of activity of greatest rationality, was held to be knowledge *par excellence* and the “scientification” of all the culture was the hidden aim of that activity (Rorty 1992, p.71). Typical group of such scientists, denying rationality and cognitive value of any non-scientific form of activity is naturally the Vienna circle (Kolakowski, 1966, p. 15).

The greatest achievement of Kuhn was, according to Edinburgh school, to cross the border between science and all the rest of human knowledge, by showing crucial analogies between the two domains – which was sometimes mistaken for an attack on rationality as such. This does not apply to Kuhn himself – but for example to Feyerabend – very well indeed (Amsterdamski in Guide, p. 213). For the real problem is the rationality, not science. If opponents of Kuhn accepted – most of them – strong notion of rationality as cognitive approach based on objective criteria (Rorty 1999, p. 145), his advocates proposed to replace such a notion with a lot much flexible one, referring to sociological categories, like the distinction between persuasion and violence and so on (Rorty 1999, p. 74). The phenomenological criterion took the place of the methodological one – the very fundamental distinction and following cut through the field of human knowledge lasted untouched. In accordance with Kuhn vision of scientific discussion many philosophers sacrificed their time and intelligence to adopt the results of argument over natural category of science to the old view concerning nature of scientific knowledge. The best example is of course I. Lakatos. He makes the mistake Kuhn has made – Barnes describes all his theory as one vicious circle (Barnes 1983, p. 61).

The stand of the Strong program in all the quarrel just put in brief is at the same time radical and well founded – and very similar to Rorty’s view. Edinburgh school declares relativism and, of three variants of it, described by Rorty it accepts two. Edinburgh school claims that there are as many truths, as there are justifications, and that there is nothing to be said about truth or rationality – we can only talk about certain justifications in a certain society (Rorty calls it “pragmatic relativism”) (Rorty 1999, p. 38).

Difference between rational and non-rational is here completely superfluous. It is not argued that there is no rationality – but that we cannot speak of some total, intersubjective human rationality and treat it as a normative idea. Strong program suggests us to treat as equally good all the structures of legitimation and accept the view, that all the conceptual networks are equally rational (Barnes in *Strong Program*, p. 107). Consequently, we cannot deny, that – in spite of strong link between the world and the knowledge – relation is vague and undetermined (Bloor in *Strong Program*, p. 141). Flexibility of ideas, inclusively of scientific ones, proofs that relation to be weak enough to make any normative description of cognitive process possible (Bloor in *Strong Program*, p. 143). The school underlines, using also empirical arguments, that there is no falsification by experience and no universal rules of according individual or collective state of
knowledge with experience. Belief strongly opposing to the views of Quine, for example – it is not possible to harmonise science with experience, as he wanted (Quine 2000, p. 71), we may only harmonise experience with science. Science is not a system strongly determined by its environment, as the author of “Two Dogmas of Empiricism” wanted (Quine 2000, p. 72), it is simply incorrect to put the matter like that – to look for the general rules.

This attitude is also connected with the school’s approach to logic and its rules. Rationality is a capacity of reasonable justifying one’s beliefs (Barnes 1974, p. 36) it is only our culture that connects it with logic. Certainly, there must be some rules to make the conversation, but they are proper to every culture and language game. We may call the set of rules “logic” – without forgetting that logic is fully dependent on a culture it is used in (Bloor 1976, p. 125). It is also a misunderstanding to describe causal relations among various elements of other culture in terms of our logic. It is an explanation, of course, but only for us, in our games and without any reference to the phenomenon described. There is one criterion which could be helpful in reach for the sense of other culture – it is a Wittgensteinian “form of life” (Bloor 1976, p. 126). However, it is a term so vague and unreliable, that it could only help a philosopher – not a sociologist. Logic is a kind of moral obligation in Western culture – nothing more.

It is important to remember, that rationality is a feature of beliefs and systems of beliefs. Basing on anthropological material, Edinburgh school claims that our rules of logical correspondence are not universal, that our notion of coherence is meaningless in other cultures, proceeding peacefully in spite of inner incoherencies in our meaning of the term. All the structures justifying beliefs must be related to a given culture. Azande’s auguries, Nuer’s mythology or rain ceremonies are not less and not more rational than our calculus of probability or meteorology (Barnes 1974, p. 35) – if we want to call something “non-rational” we must give up the very term.

III. Science and culture

The above presented reasoning makes clear, why the Strong program must reject the notion of science as a single, coherent and internally linked with logical relations system of beliefs on the real nature of the world. It is natural for humans to reason and draw conclusions – it is a condition of any practical action. Every reasoning is yet related to its culture of origin. Logic relies on cultural structures of justification (Bloor 1976, p. 130), so any serious conceptual analysis must not go beyond the borders of one culture (Barnes in Strong Program, p. 110).

As a consequence of such a view, we have a rejection of cumulative character of science and its progress (Barnes 1974, p.5). There are, as representatives of the program say, two visions of science. The one is that of science as a product of reflection of cognitively separated individuals, in the other science appears to be a
product of social interaction, based on collective evaluation (Barnes 1977, pp. 1-3). The first type of notion of science can be easily found in works of the first sociologist of knowledge, K. Mannheim. He stopped at the level of singular achievement in his reflections on scientific knowledge – even though he overcame it, when analysing lay knowledge (Mannheim 1952, p. 256 et pas.). The Strong program, adhering to the second view, is debunking mechanism working within the scientific collective. It is not a completely new approach – the best known works representing that kind of reflection are those of P. Bourdieu’s. On many points, theses of Bloor and Barnes concerning radically ideological character of scientific knowledge are very close to Bourdieu’s conclusions.

As we may see, scientific knowledge is treated here like any other kind of knowledge. It has got a strong and clear pragmatic context. Strong program agrees with J. Habermas that every act of a scientist producing a new element of knowledge is pragmatically predetermined by his or her interests (Barnes 1977, p. 13). But, in so far that Habermas views science as a dominant and typical form of technically oriented knowledge, Strong program disagrees and states there are no types of knowledge and types of interests. Habermas is a victim of his own epistemological construction (Barnes 1977, p. 14). In fact, there is no emancipation. Scientific knowledge is historically determined and is subject to social factors – which J. Habermas or G. Lukacs do not want to admit (Barnes 1977, p. 20).

Science is a knowledge of a certain social group. The identity of this group is based on language practices, determining the rules and the reason of adherence. It is not connected with any, as an objectivist would say, “competence” or “proficiency”, it is only a matter of right usage of certain technical means (Shapin in Strong Program, p. 321).

Conceptual network of a scientific collective is subject to all the network-protecting actions. Especially, it protects and preserves itself. Therefore, cognitive conservatism is the most natural attitude of a scientist. Network is actively protected (Bloor in Strong Program, p. 143) because it provides sure and verified set of methods to deal with the world. Scientific knowledge, as any other conceptual network, defines condition of its own coherence (Bloor in Strong Program, p. 147) – it is self-preserving and hermetic. In addition, its basic character is consensual, which is a consequence of a necessity of understanding within the group. This requires the group to create concepts and impute them all the members of it – which inevitably leads to cognitive violence. All the scientific views are adopted to some collective beliefs, rejecting all that, which is contradictory to them (Pickering in Strong Program, p. 269). Science is therefore always potentially accorded with experience – it is a warrant of its own reliability (Bloor in Strong Program, p. 158). Building the ship of science is an infinite runaway from dissonance.
IV. Truth

For Edinburgh school, truth is a regulative idea.

As I have already mentioned, the dominant of our natural attitude according to Edinburgh school is a notion of obviousness of the world and thereupon based intuition of adequacy of our cognition. It is, however, not possible to pose the problem of adequacy without allowing some form of graduation of the latter – otherwise the postulate of adequacy would be an empty phrase. This is exactly where the notion of difference between truth and false stems from (Barnes 1974, p. 2).

The term “truth”, when applied to our suppositions concerning the outer world (and that is how layman as well as scientists use it), engages us in the problem of representation of the world (Shapin 1994, p. 310). Edinburgh school proposes a following solution: Science is in our society a dominant form of knowledge for its excellent practical value, which is such a nuisance for Habermas. Science is accredited form of knowledge (Barnes 1974, p. 64) which becomes less and less human, as the process of production of science changes into a technically advanced and specialised manufacturing. The role of human factor is loosing its importance, and stress is being put strongly on the procedure. As legitimation is always urgently needed for the sake of communicational success, and devaluated human interaction can no longer be a source of it, scientific truth was invented as a legitimation for institutionalised science (Shapin 1994, p. 411).

Therefore, idea of truth is a functional one (Bloor 1976, p. 36). Being “true”, when applied to a supposition, defines its relation to the world as adequate. Representatives of Strong program feel obliged to mention that, if there is no socially undetermined language to speak of objective reality, there are as many notions of adequacy as there may be pragmatic expectations towards it (Bloor 1976, p. 35) – as many truths, as there are cultures. The notion of adequacy always adopts to choices and decisions, which are prior to any theoretical concept. If for some reasons we would like to leave the term “truth” in our vocabulary, we must realise, that we cannot qualify a thing as “true” in objectivist sense of the word. We must give up the classical idea of truth as adequacy – in ontological or semantic meaning (Woleński 1993, pp. 179-180). Only way we can use adjective “true” is to use it as a socially accepted label, differentiating one group of supposition from another. In our society the usage of this label is prescribed by science (Barnes 1974, p. 5).

Position of Edinburgh school in the discussion is a very uncomfortable one. There is no possibility to give good foundation to relativism – it is, par definition, a standpoint negative. As the school rejects all the psychological and biological explanations of the phenomenon of scientific knowledge, the only way left is that of historical relativism (Amsterdamski in Rationality of Contemporary 1992, p. 320). And this is a way down, because its consequence is a claim, that all the explanation is based on the very same cultural bases as its object, so a sociologist
of knowledge can give no satisfactory arguments in advantage of his view. All the objectivist tricks like comparing usefulness, simplicity or scope of application of a theory are rejected, as they are based on some notion of relation between the facts and the words. Any idea of such a relation must presume a reference of beliefs out of the domain of beliefs (or the language, in which they are expressed) (Woleński 1993, p. 174). It might be said, that the program deprived its creators of the possibility to operate on arguments of different logical type. This is precisely why they cannot keep the semantic theory of truth.

Naturally, there is always one more criterion of truth left – coherence (Woleński 1993, pp. 271-273). But the notion of coherence is based on some kind of contradiction, which implies some rules of reasoning. Coherent theories are also limited to one culture only – just like all the other.

In circumstance existing, difference between relativism and absolutism is – within one culture – a question of moral obligation. One thing we should not forget is that moral judgments cannot be presented as description of reality in an objectivist sense (Barnes 1982, p. 60). Strong program, having taken the moral obligation, finds itself in trouble. It is very difficult to carry out any research in a descriptive science without any truth.

But – a good method could perhaps help – to find the way out of a problem without giving up consequence. Edinburgh school does not want to enlighten anyone as to the conventional character of truth. Every notion of truth is socially functional (Bloor 1976, p. 36), and it is not important, what the truth really is, but how it appeared in that very shape and how it works. The object of research is a truth limited to one class of phenomena (Lukes in Strong Program, p. 325) and treated like a set of beliefs to be explained. It is not important whether the truth is in fact limited to the sphere of language or theory – it is only important that in that sole sphere anything can be said about it.

Instead of taking up the problem of truth within scientific discourse, it is worthwhile to have a look at its work in the wholesome of a culture game. Science – and its truth – can make social paradigms work or remain withdrawn, can perform in social reality in a potentially dangerous way (Shapin in Strong Program, p. 402), sustaining or overthrowing beliefs freely. Any expression concerning reality is a means of creating it during institutionalisation and conventionalisation of the discourse (Shapin 1994, p. 320) – especially expression in scientific field. People trust science, because its criteria are unified and operationalized (Barnes 1974, p. 67) – notion of analogy between the unity of the world and unity of scientific explanation is a great ally of science. The more should we pay attention in order to treat scientific knowledge just like any other. Strong program agrees with Feyerabend that evaluation of knowledge in our culture is perfectly arbitrary (Feyerabend in Rationality and the Thought-style, p. 168).

There is one more serious reproach concerning school’s relativism. It can be said – so does Mary Hesse, for example – that the Strong program of sociology of knowledge is a simple consequence of ideas of underdetermination and incommensurability (Mokrzycki in Rationality of Contemporary, p. 356). In the
above mentioned discussion advocates of the thesis, that nature is a natural category made a statement, that Kuhn’s, Duhem’s and Quine’s theories would result with a total abandonment of all the discussion (Rorty 1999, p. 74) – the same can be said about the Edinburgh school. If no theory can be translated into the language of another one, discussion can take place only within one theory (language, culture and so on). An objectivist is convinced, that such a consequence is a satisfactory *reductio ad absurdum* of a constructivist thesis. Rorty writes, that the argument on underdetermination and incommensurability ended with an armistice. Opponents have agreed that the anti-positivist theories do not contradict the possibility of learning and knowledge transmission, which is enough to make a discourse go on.. Methodological quarrels have weakened and the main point of interest has moved to so called “scientific realism”. This armistice is completely disappointing to both Rorty and Edinburgh school.

The problem is, that without discussion no comparisons between theories can be made – and, after having introduced a few crucial generalisations – this applies to inter-cultural comparisons as well – which seems to many an evident absurd.

Pragmatism claims, that comparisons are possible on the basis pragmatic definition of truth and thereupon built pragmatic definition of science (Rorty 1999, p. 62). Such a point of view is well founded on the ground of pragmatic solidarity and therefore it can need defence, but not justification, for besides solidarity and contingency there is only metaphysics (Rorty 1996, p. 130).

The Strong program, quite differently, openly admits there are no inter-cultural comparisons – and if there were, they would be of no interest to it (Nielsen in Strong Program, p. 365). Cultures cannot be compared, for any valid analysis would require something impossible – leaving the borders of language (Barnes in Strong Program, p. 110). Paradoxically, a consequence of such application of achievements of structural linguistics and Wittgensteinian philosophy is the impossibility of defining the meta-language, even within one theory.

The Strong program wants to describe, not to evaluate (Bloor 1983, p. 82), and any inter-cultural comparisons are naturally burden with evaluation. The Strong program denies the possibility of any epistemological privilege and tends to avoid all the negative consequences of unavoidable cultural determination of any cognitive process – at the cost of remaining forever within one culture. It is than possible to avoid the mistakes – with minimum reach of results. It is, than, possible to criticise the others, but not to go any further.

V. Objectivism

The terms like “truth”, “rationality” and ”science” are all strongly connected with the term “objective”. That is why the beneath passage will mostly be a summary.

“Objective” could mean “consistent with reality” (Rorty 1999, p. 56). Within our culture we are obliged either to reject such a meaning, or to accept it as trivial.
If reality is defined by a social discourse, containing science as its part, and part of science being a definition of objectivity as “what science defines as objective”, reality is of necessity consistent with what we hold as objective. On the other hand, if we do not want to treat reality as social construct and we would like to speak of reality as such – we enter the sphere of probability. As there is no extra-cultural access to reality and everything we could say about it is valid only within our culture, we can never test the adequacy of what we say with the reality itself. Both possibilities were guaranteed by the classical definition of truth – something that objectivism cannot do without (Kałużsyńska 1998, p. 136).

Edinburgh school can do no more than admit the possibility of objectivism within one culture. Any attempts to construct some extra-cultural notion of objectivity are all in vain. In fact, any objectivist epistemology is a kind of false conscience – it analyses its own rationality as if it was a universal one (Mokrzycki in Rationality of Contemporary, p. 357). The greatest fault the program finds in Habermas or Lukacs is that their universalism deprives cognition of its social roots.

Not only is there no individual objective cognition, but we must also reject objectivity as a product of interpersonal discourse. Consequently, we must admit that what Popper said to defend the objectivity of science against sociology of knowledge is of not much use. Popper accepts the fact that a single individual is fallible (Popper 1997, p. 91), but he claims, that social character of knowledge can serve as a warrant of its objectivity (for society eliminates false beliefs in a way similar to natural evolution. Strong program opposes strongly to that thesis, claiming that social influences make the very discussion about objectivity impossible. Popper argues that individuals may of course act irrationally, but the rules of a discourse are nevertheless rational and independent on the context (Popper 1997, p. 93). Such a view is perhaps connected with an idealistic ontology, in which rationality belongs to the “third world” (Popper 1992, p.202). According to the Strong program, there is no universal rationality in any sense (which serves as a justification of the postulate of symmetry in sociological explanation) (Mokrzycki in Rationality of Contemporary, p. 357).

There is one more, not yet discussed understanding of objectivism as an approach of a scientist formulating his conclusions so as to make the critic possible (Popper 1992, p. 188). Any representative of a viewpoint presuming a consensus without violence would easily agree on such an objectivism. Edinburgh school would also admit the possibility of critical approach, but only within one culture (Bloor 1976, p. 125), and that is not what the objectivism is striving for. The strength of convention is such, that we may always set a number of rules and allow a discussion on the ground so created. It will, however, lead us only to a position best represented in the discussion, whereas Popper and the others would like to reach, as a result of a discussion, the best position – objectively, not rhetorically best. An objectivist is looking for truth; a constructivist – for arguments. Sociology of knowledge is concerned with a battle of ideologies (Feyerabend 1982, p. 186). Science, as one of the mightiest ideologies in a modern world, is a most interesting object.
The last meaning of objectivity the Strong program refers to is the lack of evaluation. This one must be also rejected on the ground of definition of culture as “subjective reality”. If culture determines the whole of human cognition, and its main function is to provide people with frames of evaluation (Barnes 1977, p. 22), there cannot be a cognition independent of culturally formed system of values. Even though not many contemporary scientists do believe in a positivistic objectivism (Kolakowski 1966, p. 162), it is still most common to postulate the division between the individual and social cognition. This refers us back to the problem of cognitive fault. The very notion of mistake is widely used for reduction ad absurdum of the thesis criticised by saying “but this does exclude the category of fault” (Lukes in Strong Program, p. 333). An objectivist believes the faults of individuals can be reduced in social processes – mistake is therefore a necessary element of objectivistic standpoint. The last method to save objectivism and the term “fault” itself would be to allow some variant of psychologism, to admit that universal rules of cognitive correctness are delimited by limits of human psyche. However, the Edinburgh school resigns easily of the category of fault, which seems logical (?) if we consider the fact, that the adjective made from “fault” is “false”, which may be an antonym to “true” as well as to “right”. One cannot be together an objectivist and a sociologist of knowledge.

The foregoing text is an attempt at presenting radical culturalism from epistemological point of view. We are left, as with every radical relativism, in the world lacking any undoubted objective reference, without culturally unchangeable criteria of evaluation, with no truth, no way round from the circle of our presuppositions. We have burned all the bridges leading back into the land of natural attitude. It is visible, that besides the methodological and ontological theses there is also some concept of human in the works of the Edinburgh school. It is a vision of a human unrooted, wandering with no destination over the Holzweg of culture. There is no happy star in the wandering – neither knowledge, nor intuition can help find the way round. And this time it is no metaphysics that sends us into the journey. Perhaps it is than one way to avoid this fate and it is to stand by traditional, objectivist epistemology – perhaps the clearly postmodernist attempt of the Strong program to once more question its own basis is nothing more than an intellectual sport with sad consequences.

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