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LAKATOS AND LUKÁCS

Lakatos constructed his major contribution to the philosophy of science, the methodology of scientific research programmes (MSRP), in the late sixties and early seventies in England, after he had already become estranged from the Popperian philosophy of science. In this paper, we attempt to show that the MSRP was motivated by his philosophical and political ideas from the forties and fifties in Hungary, when he was imbued with the communist ideology and was influenced by the philosophy of Georg Lukács. From this point of view, the MSRP can be considered to be a special representation of Lakatos' earlier political values and practice in the field of history and philosophy of science.

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Lukács and Lakatos were very different philosophers. However, their biographies have a lot in common: both of them were Hungarians, they came from Jewish families, their extraordinary talent were already manifest in their boyhood, both of them were active already in the literary and debating societies of their high schools, they were brilliant and enduring polemicists, they started at the university as students of law, which neither of them liked, they wanted to transcend the limits of the usual academic intellectual life and become creators and active players in a new, truly humanistic society, both of them played some role in the intellectual and political life of Hungary, and once they got into situations where they thought they would have to leave the country, they were arrested and imprisoned without trial for shorter or longer periods. The list goes on and on.

It can be argued that these similar aspects of their life-histories do not represent much more than the natural prerequisites for any Eastern European intellectual destiny, and that despite these similarities, their thinking, their ideology, their philosophical and political preferences could evolve along very different paths. Really, it is enough to recall the pure fact that Lukács returned to the socialist Hungary while Lakatos left it, or that Lukács was an absolutely committed Marxist thinker until his death while Lakatos became a vigorous critic of Marxism, or furthermore, that Lukács concentrated his activity on the aesthetic and political problems, whereas Lakatos

investigated the problems of science; the list of their dissimilarities is long, as well.

In this paper, however, we will elaborate on some similarities of their philosophical thinking. We will derive some inspiration from a social constructivist approach, but, fortunately, our findings can be based on concrete details and facts of their biographies, as well as on careful analysis of their writings. Taking into account the fact that Lukács was Lakatos' senior by about 40 years, the similarities of their ideas appear in the form of a Lukácsian influence on Lakatos' thinking. It is, perhaps, interesting that this influence had a variable intensity and a life-long duration, especially in those problem-fields in which Lukács and Lakatos might have collected similar experiences about social reality. In this way, Lakatos accepted some aspects of the Lukácsian world-view and applied them in his actual works. In some cases he radically criticized Lukács, perhaps hoping to overcome and substitute him, but in the end, he returned to some very basic ideas of the great, old master.

First, we will recall the relevant biographical facts about Lukács and Lakatos and discuss Lakatos' early writings. In the second part of the paper, two aspects of the Lukácsian influence on Lakatos will be analyzed in more detail. In the case of the Lakatosian MSRP, its Lukácsian components will be illuminated.

I. BIOGRAPHICAL REMARKS ON LUKÁCS AND LAKATOS

There are numerous biographies of Lukács – including his autobiographical sketch –, so we think it is unnecessary to reproduce the details here.¹ In contrast to this fortunate situation, we can find in the literature only very few – and sometimes incorrect – descriptions of Lakatos' life, especially of its earlier part, which took place in Hungary. Fortunately, in this volume Jancis Long published a paper [31] which is full of interesting data and facts about this period of his life. This development releases us from the obligation to present here Lakatos' whole life-history in Hungary. However, in order to support a better understanding of our paper, it seems to be worthwhile to partly recount those aspects of their lives which possess a strong relevance to their intellectual and personal relationship. In the case of Lakatos, we try to fill out Long's analysis with some additional details and a short review of Lakatos' early Hungarian papers.²

1.1. Biographical remarks on Lukács

Lukács was born in 1885 and died in 1971 in Budapest. He grew up in a wealthy Jewish family, in which Hungarian and German culture were equally represented. His world-view was fundamentally influenced by the deep social

contradictions of the time, which were rooted in the coexistence of a feudalistic heritage and the early stage of free-market capitalism in that country. He rejected categorically the political practice and ideology of the ruling classes, and searched for a better system of values in the literature of his age. The poems of Hungarian poet Endre Ady played a very important role in his intellectual development. First he studied law, then philosophy and literature at the University of Budapest, and later, sociology and philosophy in Berlin with Simmel and Dilthey. In his first important work about the history of the development of the modern drama, he correlated this process with historico-social relations. In his mid twenties, he was influenced by some mystic masters and Kierkegaard; later he went to Heidelberg and had intensive contact with the sociologist Max Weber and some members of the neo-Kantian school. He started to prepare an aesthetics of Kantian style, he was shocked by the inhuman imperatives of the age embodied in the escalation of the First World War; this diagnosis provoked a major turn in his intellectual life. He was radically opposed to this inhuman ideology; first only theoretically, later practically, as well. At the beginning of this process – according to his recollection – his position was a mixture of “left wing ethics and a right wing epistemology,” but later on he became more radical and drew on the practical consequences of his standpoint, accepted the idea of the social revolution, and joined the Hungarian Communist Party. He played a political role in the Hungarian Soviet Republic which ruled the country in 1919; following its decline, he had to leave the country.

He moved to Vienna for ten years, during which he tried to rethink the perspectives of the proletarian revolution. As a result, his famous book entitled *History and Class Consciousness*, was published in 1923 (in German) [32]. (Later he called the intellectual position of his own book messianic Marxism, and criticized and rejected most of its basic statements.) This book became popular world-wide, especially amongst left wing intellectuals. In order to send an important progressive message, he reconstructed and presented the essence of Marxism as a method and, analysing it, he identified the philosophical constituents of Marx’s (and some Marxists’) worldview and their close, but critical, relationship to the Hegelian dialectical philosophy. The concepts of totality, alienation and reification, among others, played a central role in his analysis. He argued for the idea that the essence of Hegelian (and Marxian) dialectics is the category of concrete totality which can only represent complex reality. Applying the dialectical view of totality, we can comprehend reality as a social occurrence. The rationalism cannot be described as an abstract, formal, ahistorical principle. The Hegelian dialectic was depicted, in this important book, as a version of rationalism. On the basis of its sectarian attitude, compromises of any kind were rejected because they would prevent the achievement of the proletariat’s final goal.

As a result of the criticism of his book and the political struggles between the fractions of the (illegal) communist party, his position became less sectarian, and in 1928 he suggested a democratic dictatorship as the political

program for the party. In 1930 Lukács went to Moscow, where he was able to study Marx's *Economic and Philosophic Manuscripts of 1844* and some other unpublished works. This was very important for his gaining a better understanding of the real difference between Hegelian and Marxian philosophical views, and it enabled him to do away with his Hegelianisms – which had appeared essentially in his *History and Class Consciousness* – and elaborate upon an authentic Marxian position for the first time in the fields of aesthetics, social and political philosophy and the history of philosophy.

From Moscow, Lukács returned not to Vienna, but to Berlin – for about two years – and he quickly became prominent among progressive German writers. On the basis of his freshly clarified and strengthened Marxian view, he took part in *political and literary* discussions. He started to elaborate upon his idea of *realism* in literature – an activity he pursued for many years thereafter in Moscow and Budapest, as well. It is very interesting and important that during this work he considered the products of literature together with their socio-historical contexts. The quality and the value of a novel or a drama could be evaluated only in this context. From this position, he criticized the avant-gardism, the expressionist attitude of some proletarian writers. (This criticism was a more or less indirect attack on Brecht, as well. This conflict between the two groups of German left wing writers in 1932 is sometimes called the Brecht – Lukács debate [4].)

His critical position with regard to the avant-garde movement was closely connected with his renewed political philosophy. In his view, avant-gardism expressed a sectarian political attitude, the dangers of which were clear to him because of his own development. Moreover, in the shadow of the emergence of fascism he gradually realized the significance of the collaboration of progressive societal actors to the formation of an antifascist political front. (His idea harmonized with the political strategy of the Popular Front policy accepted by the Comintern in 1935.)

During his longer stay in the Soviet Union between 1933 and 1945, Lukács maintained his alignment with the necessity of the socialist revolution, and because of the historical situation, he tried to analyze the social, cultural, and political environment of the rise of fascism. In this analysis, he wanted to save the progressive aspects of German intellectual development from the realm of fascist ideology and to present the achievements of Hegel, Marx, Goethe and Thomas Mann as the proper basis for social development. In his historical, political, philosophical and aesthetic works during this period, he elaborated many details of this problem. The central idea of his analysis was a distinction – of a Hegelian origin – between the two groups of citizens, the *citoyens* and the *bourgeoises*. The *citoyens* form the progressive part of the civic classes; they are the representatives of the classical civil values of civil revolutions such as freedom, equality and fraternity, they preserve and present the most important positive human values, and they are interested in human progress. Opposing them are the *bourgeoises*, the reactionary class; these can accept only their own selfish interests, are interested in the

increase of exploitation, imperialist conquests and war. Fascism, of course, is the product of bourgeois dominance. On the other hand, in the building of a new, socialist society, and especially in the struggle against fascism, the proletariat can form an alliance with the citizens without endangering its revolutionary goals. In this way, the citizens serve – not fully aware of their role – to support the socialist revolution, but they play only a temporary role in the development of the revolution, and the historical process will roll right on over them. (This type of alliance-policy was, at the time, called the Popular Front Policy.)

In the Lukácsian view, the citizen's attitude was related to the values of *rationalism* in thinking and *realism* in literature and art. On the other hand, the bourgeois attitude is expressed in various forms of *irrationalism* and *anti-realism*. According to his position, the rationalist view is a decision in favor of progress, while the irrationalist standpoint is the result of an inability to choose progressive solutions to problems. The relationship between realism and anti-realism has ideological characteristics similar to those expressed in the arts. (He criticized, from this standpoint, the regressive aspects of naturalism and avant-gardism, as well.) These ideas appeared, for example, in his works on Goethe, Keller, Thomas Mann, Hegel, and in his manuscript on Germany as the center of fascism, which he started to write in Tashkent in 1942.

When, after the war, on 28th August, 1945, Lukács returned to Budapest, he was a 60-year-old, world-famous Marxist philosopher. He received some – not very important – official and political positions, and was awarded a professorship in aesthetics and cultural philosophy at the University of Budapest. Between 1945 and 1950, he lectured on aesthetics, Hegel's *Phenomenology of Spirit*, and the history of irrationalism in philosophy. (Within these courses, he presented some chapters of his Tashkent manuscript, too.) In the first years of his teaching activity in Budapest, his lectures were an important event for the younger Hungarian intellectuals. The lecture rooms were overcrowded with several hundred listeners; many people wanted to become directly acquainted with the authentic Marxist approach to the problems of the age [45]. Lukács was aware of these expectations, and the possibilities resulting from them: parallel to his public lectures, he promised seminars for smaller circles and welcomed students and other intellectual partners into his university office and his own flat for more detailed discussions [7].

On the other hand, a great number of his works were translated into Hungarian and published very quickly during these years. More than fifteen books, containing different collections of his studies, appeared within a few years. (Until these years, his works were essentially not published in Hungarian with the exception of his books from the 1910s, whose philosophical positions were radically rejected by the older Lukács.) He published regularly in periodicals, first and foremost in those which expressed communist political values (*Szabad Nép*, *Társadalmi Szemle*), but also in other

journals (Forum, Valóság, etc.). In these books and papers, he discussed problems of philosophy, politics, history, ideology, literature and art in general, and their appearance in the concrete, current debates in the post-war world, and especially in the Hungarian society. In most of these questions, his position was based on the above mentioned views, which were elaborated upon in his works written in the Soviet Union. These ideas, without a doubt, became very essential actors in the Hungarian intellectual life of those days.

Already in the Autumn of 1945, a group of younger philosophers and literary critics could be found around Lukács. The members of this “circle” were József Szigeti, István Király, Imre Lakatos, and György Lázár (alias Leó Lám). It was not an organized circle with regular meetings or any kind of fixed program, but these young people knew each other, and they highly respected Lukács’ philosophical work and the personal discussions they had with him. It is supposed that they were frequent visitors at Lukács’. During these – mostly individual – personal visits, it was possible to ask Lukács’ opinion on their current works and ideas, and listen to Lukács talk about his current philosophical problems or political views [7]. It is more or less obvious that the relationships between Lukács and the individual members of this group were different in their significance, stability, duration and reciprocity. By about 1947, the “circle” had ceased to exist, Király and Lakatos explicitly criticized Lukács’ moderate political opinions, and personal relations between the former members had worsened.

In 1949, in the shadow of the Rajk trial, an attack on Lukács began in the press. As a result of this “Lukács debate,” he lost the opportunity to teach regularly at the university, but “won” the opportunity to work on and finish his book on the role of irrationalism in the emergence of fascism. During this period, he was surrounded by a group of students (e.g. István Hermann, Ágnes Heller, Dénes Zoltai), whom he had already recruited from his own students; the development of this group, which lasted for some decades, led to the formation of the Budapest School of philosophy. In 1951–1952, he finished the manuscript of *The Destruction of Reason*, employing his earlier papers and manuscripts, as well. The book appeared in 1954 in Hungarian and in German.

In 1956, Lukács became a member of the first Nagy government for a few days. Because of his political activity, he was put under arrest for some months. After his discharge, he returned to his philosophical work. In this last period of his life, Lukács summarized his aesthetic views, characterizing the specific nature of aesthetics, tried to elaborate upon a Marxist ontology, the ontology of social existence, and emphasized the importance of the further democratization of the socialist political system.

1.2. *Biographical remarks on Lakatos*

Lakatos was born in 1922, in Debrecen, and died in 1974, in London. He grew up in a Jewish family in Debrecen, the central town of eastern Hungary, in “the Calvinist Rome,” as it was sometimes called. He attended the Jewish Gymnasium of the town, where the Hebrew language and Jewish culture were essential parts of the curriculum. He was a very ambitious and excellent student in every field, especially in mathematics. For example, he took part in the traditional mathematical problem solving competition of the journal *Középiskolai Matematikai és Fizikai Lapok* (Mathematical and Physical Journal for Secondary Schools), lasting whole school-year, where the goal was to solve the problems appearing in the journal and send the solutions to the editors from month to month. The journal regularly published the best solutions of the problems, together with a list of the pupils who had sent in a correct solution of the problem in question. In the issues of the journal of 1937–38, we can very frequently find the name Imre Lipsitz (Lakatos’ original name); moreover, because of his excellent work in 1937, his photograph – together with those of 40 others – was published.³ Furthermore, he struggled for (and occasionally won) the position of leader of the “Jewish self-education group” of his school.⁴

It seems to be important that, even at the beginning of his conscious life, he was unavoidably involved with and successfully educated in both ideological, religious and exact, scientific aspects of the culture. It can, obviously, be supposed that his life-long interest in both political and scientific matters, moreover, his vacillation between a political and an academic career, can be associated with these socializing elements of his youth.

At that time, Debrecen had a relatively significant Jewish community with a few thousand members, despite the strong assimilative tendencies of some earlier decades. However, in Lakatos’ boyhood – parallel to the spreading of the ideology of national-socialism – an increasing segregation and opposition between the majority and the Jewish minority can be observed [38]. Conflicts resulting from the coexistence of different cultural and religious traditions and values in one town (and even in one person) were an everyday experience for the young Lakatos. How could a young intellectual find or define his identity in this conflict-filled environment?

It seems to have been a very important problem for – not only the young, but also the older – Lakatos to find recipient communities (from family to social class) for himself. He probably desired strongly to accept the entire value system or world-view of receptive communities or that of their prominent masters, because he wanted to become the best member of the society, or the eminent pupil of the great master. In my view, he wanted to select and accept the values of his selected environment; moreover, he wanted to control his own acceptability which was (apparently) determined by his environment. The socio-historical situation made his identity into a problem to be solved, and he did try to solve this problem, but he was educated to find

correct, rational solutions to hard (mathematical) problems. Lakatos attempted, as a young boy, to become assimilated into the ruler right wing community, and later, to organize a left wing, secret resistance group.⁵ Both solutions were rational, even the second one. The success of such a strategy depends on the quality of the solution, and Lakatos was clever enough to chose the better one.

Of course, such identity problems possess a social dimension, as well. As a genuine member of a socially defined minority and an outlawed community, he must have been sensitive to the similar situation of the oppressed classes of his society. He probably recognized the unsolvable and irrational increase of the social conflicts, which would lead to the coming war and ruination. In this situation, the question naturally emerges: How would it be possible to find a rational solution to (his own and) the difficult social problems? In Marxism, he could find a reasonable treatment of these problems. In my opinion, his early adherence to Marxism was rooted in this situation. It was clear that the Marxian worldview offered an almost scientific description of social systems, with a rational treatment of social conflicts, and also allowed a realm of freedom for truly free development of personality, without any social oppression or the rule of classes. The formation of this new society is full of important and interesting problems; certainly, a very engaging challenge for a young, clever genius. On the other hand, the unselfish, self-conscious, self-sacrificing “soldiers” of the struggle for the new society are incorporated into the new community not as simple members, but as the heroes of the new age, the new society. It can be seen that Lakatos, in his adult life in Hungary, tried to pursue a twofold goal: to actively take part in the political life, and to continue doing science.

Lakatos’ “academic life” until 1945

Between 1940 and 1944 he was a student at the University of Debrecen. In the first year he could study only law – in Hungary, the “Jewish-law” of the time prescribed the desired ratio of Jewish students for a given academic field at the university – but in 1941 he was able to move to the Faculty of Humanities, where he began studying mathematics, physics, philosophy and some other humanities.

The University of Debrecen was, at that time, a relatively new and small institution. It was about 20 years old, had no independent Faculty of Sciences, and the mathematical and physical courses of study were organized within the framework of the Faculty of Humanities. The university had relatively few students (about 10 students, for example, graduated together with Lakatos in the field of mathematics and physics). Let us now consider the faculty of the university during the time in which Lakatos studied there.

In mathematics, Lajos Dávid was a lecturer in algebra and analysis. He was sensitive to the historical aspects of mathematics; for example, he

published a book on the two Bolyai's (Farkas and János Bolyai). László Rédei was another lecturer in algebra. Ottó Varga and Béla Gyires taught geometry and differential geometry. This subject probably was presented on a high level – the subject of differential geometry has to this day been taught at an internationally recognized level in Debrecen. For a short period, Lakatos was an assistant of Varga.

Physics was taught by Sándor Szalay, a pioneer of nuclear physics research in Hungary, and János Horváth, who worked in statistical physics. (Lakatos later wrote some short commentaries in Hungarian newspapers and journals on the different aspects of nuclear physics; the atomic bomb,⁶ diseases caused by nuclear radiation [26], etc. It could be stated that he was seriously interested in nuclear physics, and that he considered it along with its social context.)

In the humanities, he could listen to the Kantian philosopher Béla Tankó, to Gyula Mitrovics, who worked in aesthetics, psychology, and neo-Kantian philosophy, and Imre Révész, a historian of science and religion. From the later events of Lakatos' life, it can be seen that Sándor Karácsony, who worked on Protestantism and Hungarian studies, had an important influence on the young Lakatos. (I suppose that Lakatos received the intellectual support from Karácsony to find and consolidate his Hungarian identity in the very Protestant environment of Debrecen.)

However, it was first and foremost Árpád Szabó's (1913–2001) lectures and personality that fascinated the young student. Szabó, who was a lecturer in the Department of Classical Philology from 1940, studied the relationship between ancient politics and art, *politics and science* from a common historical perspective. (Later, when he demonstrated the role of philosophical ideas in the emergence of Greek mathematical thinking in his book – entitled *The Beginnings of Greek Mathematics* – he became a world-famous historian of mathematics.) Szabó and Lakatos had a close, friendly relationship, which was further strengthened by their similar political values. (Szabó, for example, supported the progressive student movement of the university, and Lakatos took part in it.) They continued their close relationship until Lakatos' death.

Because of his illegal organizing activity in the beginning of 1944, Lakatos was expelled from the university⁷ and completed his studies only after the war.

Lakatos' "political life" until 1945

Lakatos took part in the left wing student movement called *Marciusi Front* (March Front), influenced by the communist Gyula Kállai. (Kállai published during these years in Debrecen some issues of a progressive journal, called *Tovább*. It was soon suspended. When, after the war, this journal was restarted in Budapest, Lakatos worked as its editor.) At least since 1942,

Lakatos had organized an illegal communist group, a small, closed group in which he was the intellectual leader. They had a very weak relationship with the illegal communist party – a few years later, in an official investigation, even the existence of this relationship was refuted. The main activity of the group was studying Marxism: reading and discussing the history of the Bolshevik party, and theoretical and literary works of communist authors. They did not perform any practical actions against the state or its institutions.

When Lakatos had to leave Debrecen, and secretly went to the close by town of Nagyvárad, he changed his name from Lipsitz to Lakatos (in two steps), which served to increase his survival chances during this period which bore the multiple dangers of the holocaust, the anti-Communist state policy, and the war. The activity of the secret group continued under these conditions. Unfortunately, however, they committed a horrible practical offence: the group, acting on Lakatos' suggestion, forced the suicide of a young girl, who belonged to the group. They thought that she would have been dangerous to the conspiracy, had she been arrested by the police. She had to sacrifice herself for the community.⁸ This unfortunate action cast the occasional shadow on Lakatos' later political career.

After the war, Lakatos returned to Debrecen, at which point he realized that he had lost most of his family. In 1945 he became a member of the communist party, and soon he went to Budapest to work for the new society.

Lakatos' political and philosophical activity from 1945 to 1950

In Budapest, Lakatos plunged into the center of the lively, post-war re-formulation of the country's intellectual and political relationships. He took part in the struggles for communist positions on different fronts of the political fight, but in our view, he never played a central, or at least significant, role in these struggles. Some reports indicate that he seriously aspired to become a prominent politician but, in fact, he occupied only less important official positions, with limited active power. During these years, he had a subordinate position in the Ministry of Religion and Education; he was a member of a special group of the communist party, influencing the communist policy in the fields of education and culture; and for a short time he worked as an editor of a communist journal. However, these charges and their significance changed from time to time. Because of the frequent and quick changes, and uncertain and contradictory recollections, the precise reconstruction of his position-history was impossible – at least for us.

It is, perhaps, indicative of the character of that period, that the Ministry of Religion and Education was essentially re-organized at least *eight times*. In an initial short period Géza Teleki, between November of 1945 and November of 1946 Dezső Keresztury, and after an interregnum, from March of 1947, Gyula Ortutay served as minister of education. The staff rapidly grew, and it

was frequently reorganized and changed. (In the first period, many people from Debrecen were appointed to positions – for example, László Kardos, who was Lakatos' teacher at the Jewish Gymnasium.) There are some faint indications that Lakatos was employed around 1945–46, and it seems certain that he was appointed around 1948 to a relatively high position having to do with higher education.

Education was a very important field for the political struggles of that age. After the war, the removal of the relics of fascist ideology and its representatives from the educational system and cultural institutions was begun, and the re-building of a new, progressive Hungarian culture was supported by various political movements. The characteristics of this new culture, however, were open to question. There was a fierce cultural battle between the actors in political life for the dominant role in the cultural and educational field. During this time, the communist party emphasized the importance of the education of the masses, including various forms of public and continuing education; the party supported the cultural development of the ambitious members of the lower classes – instead of the representatives of the cultural élite.

The attack on the 50-year-old *Eötvös Collegium* (Eötvös College) was a part of this policy. Between 1945 and 1947, Lakatos was a member of this college: he occasionally lived there, he worked in its library, he took part actively in its intellectual life. Up to this point, the college had been a special kind of educational institution for the intellectual élite. In 1946, fuelled by leftist educational policy concepts, a struggle began for the radical reconstruction of the college, to transform it into an institution, which would serve the aims of the working class and the new people's democracy. Lakatos took up this struggle; he argued for these goals in the college and wrote a paper, in which he radically criticized the retrograde, liberal bourgeoisie atmosphere of the college and its director (the former minister of education, Dezső Keresztury), and called for its fundamental reorganization for the purpose of educating the new, working class intellectuals [17]. Lakatos had no direct role in the real transformation of the college. Its "transformation" (more precisely, its temporary liquidation) actually saw the college turned into an ordinary dormitory for students; this process dragged on at length [41] and was finished three years later, when Lakatos had already been sent to an internment camp.

The position of his paper is interesting from the vantage point of his later intellectual evolution. After a very critical diagnosis of the intellectual character of the college, he recommended the fundamental revision and reorganization of the *college – public life* and *college – science* relationships. In these respects, he argued against the unchanged continuation of the old college spirit, as in the new social environment it would yield "isolated," "apolitical," "private," "gentry" scientists and science. Instead of the isolated scientific élite, he demanded that there be produced the vanguard of the young intellectuals of the plebeian democracy. He argued for a new Hungarian science, which would break with its bourgeois, gentry-Hungarian

character, whereupon a progressive, Marxist scientific character could emerge. It is, perhaps, worth mentioning that in these argumentations Lakatos evidently considered science in its social context; he saw scientific and social developments as parallel, coexisting processes, both of them driven by the progressive aspirations of the masses. Of course, his attitude was more or less accepted and dominant in that intellectual environment. (His paper was criticized, but only its unfavorable diagnosis was rejected – without criticism of his science and scientist concepts.) In these months, Lakatos wrote many other papers considering the problems of society-science-education-politics relationships [18–20, 22, 25]. In these papers, his ideas on these interrelated topics can be seen in more details. It seems to be significant for us, that his position in the political debates and struggles was very conscious, clear and based on serious political and philosophical studies; on the other hand, he also tried to draw the practical conclusions of, and to propagate, his accepted ideas.

Journalism can be identified as another of Lakatos' fields of activity at this time. He wrote on different political problems, and in 1947, he became an editor of the journal *Tovább* (Go Ahead), which was a revival of a journal which had been published about ten years earlier by Gyula Kállai in Debrecen. The political and cultural journal appeared in 26 issues between May and October of 1947, and was considered to be an unofficial weekly paper of the communist party. The editor-in-chief was Géza Losonczy, and it is very probable that Lakatos was the editor of one of its columns, entitled *Technika és tudomány* (Technology and Science). Doing this job he, perhaps, could practically fulfil some of the social tasks of the vanguard of young intellectuals – on which he elaborated in the debate over the college.

Yet what do we know about his studies during this period? When Lakatos came to Budapest, he could continue his “official” studies as a member of Eötvös College. (He signed his papers during this time as “student of philosophy, member of the Eötvös College.”) During this time, based on his earlier studies of Marx and Engels, he was already considered to be one of the best young Marxist philosophers. At the college, he met some young people with similar interests, young teachers and ex-members of the college, including István Király (from Debrecen), József Szigeti, Leó Lám and others.

Between autumn of 1945 and the end of 1947, according to the Lukács' biographies, there formed around Lukács the first group of young intellectuals. Lakatos was introduced to Lukács by Szigeti, and presumably visited Lukács on many other occasions, too. (However, only a single postcard from Prague signed by Lakatos – and John Bernal – can be found in the Lukács Archives, as a material sign of their relation.) During these visits, he had opportunities to continue personal discussions with Lukács on current political topics and the most general philosophical problems. According to Szigeti's recollections, at their first meeting Lukács and Lakatos immediately started to discuss a problem of the philosophy of mathematics [42b]. In these days, Lukács' major interests were in aesthetics, including the definition of

the progressive Hungarian literary tradition; the characterization of the current crisis of bourgeois philosophy, and the description of the role of irrationalism in the formation of the fascist ideology; and the political problems of the “transition” of the post-war Hungarian society to a popular democracy. In this political question, Lukács’ position was not so radical as the official – in some respects rather dogmatic – position of the communist party. He preserved his alignment with a policy of alliance between the progressive classes as a version of the Popular Front policy.

On the other hand, Lakatos obviously attended some of Lukács’ lectures and took part in some of his seminars on the above-mentioned topics. Already in 1945, however, when Szigeti first met Lakatos and asked him about Lukács’ *History and Class Consciousness*, Lakatos was already very familiar with this topic. (It is unclear how he was able to find a copy of this forbidden and rare book in Hungary.)

In 1947, Lakatos published two small, mainly political articles in the journal *Forum*, which was considered to be the journal of Lukács. In these papers, he critically reviewed the current issues of the journals *Huszadik Század* and *Vigilia*. He criticized the political positions of the Hungarian “civil radicalism” and of progressive Catholicism, and their relationship to communist politics [23, 24]. In this respect he, in principle, could imagine an alliance between the proletariat and the representatives of civil liberalism and Catholicism, but not on the basis of the ideas presented by most of the authors of these journals. (In his criticism, he cited and rejected some political ideas of Michael Polányi, too.) He studied the details of the policy of alliance in another two papers, as well [15, 25].

However, Lakatos had published his first papers in the journal called *Valóság* (Reality), which was a journal devoted to young intellectuals and which was published by the organization of young communists. It was much more than a journal, in fact, because in the summer of 1946, a circle was formed around the journal; this group organized common meetings and debates, and consisted of Árpád Szabó, Zoltán Szabó, István Király, József Szigeti, and Lakatos. In his first paper in *Valóság*, Lakatos reviewed a book, a collection of papers on dialectics written by Erik Molnár [14]. Lakatos conceded the author’s merits in the popularization of dialectics and its application in some cases, but this did not suffice. He criticized weak points of the book, chiefly on the basis of Lukács’ *History and Class Consciousness* – without mentioning it, however – and Lukács’ actual writings in newspapers. He anticipated the struggle between Marxist and Bourgeois science, in which Marxist science was supported by the Marxian method, that of dialectics.

It is important to note that two of Lakatos’ further papers in *Valóság* initiated political debates. We have already mentioned, above, his famous paper addressing Eötvös College, but before that, he had published in *Valóság* a lengthy book review of Imre Csécsy’s *Világos pillanat* (A Clear Moment). In 1946, Csécsy was the president of the Hungarian Radical Party, and in this book he proposed the harmonization of the value systems of

individualism and socialism. Lakatos sharply criticized this position [15], Csécsy replied to his critique [3], and Lakatos then returned to the problem briefly in his paper in *Forum* [23]. According to Lakatos, Csécsy, in his book, described very clearly the awful practical consequences of the “bourgeois” ideology and, confronted with these consequences, he rejected these aspects of “civic” values, but wanted to rescue their positive aspects in the form of an updated “Citoyen” ideology. On the basis of Lukács’ study on Thomas Mann [33], Lakatos classified Csécsy as a representative of citoyen consciousness. However, he criticized – in a very sophisticated way – Csécsy’s ideas about the present and future role of the intelligentsia, because Csécsy had not accepted clearly enough the leading role of the proletariat in the forthcoming social revolution. In accordance with the communist theory of social revolution, Lakatos argued for the thesis that the proletariat is the only progressive historical actor in the revolution, working in its revolutionary practice together with its allies, the peasantry and the progressive intelligentsia. Lakatos declared – again, implicitly following the ideas of Lukács’ *History and Class Consciousness*, and of his Mann study – that in this way, a unity of actions and thinking can be established as a real progressive historical alternative. In his reply, Csécsy pointed out the ideology-ladenness of Lakatos’ interpretation of progress. However, Lakatos maintained his position in the later paper in *Forum*, and suggested to the radicalists a more radical self-criticism, in order to reach the real progressive standpoint.

Another front of Lakatos’ political struggle was his opposition to the reactionary ideas of Christianity. In this respect, he emphasized the principal possibility of a harmonic relationship between Christian and socialist values, a way in which Christians could be allies of the proletariat, under the guidance of socialist ideology. He criticized the aspirations of the Christian ideologists and scientists to a more dominant social role for their – in this respect, reactionary – ideas [24, 25].

In the *Társadalmi Szemle* (Social Review), which was the most important theoretical journal of the communist party, Lakatos published only two very brief book reviews. These had no more than, perhaps, symbolic significance for him [20, 21].

Alongside this vigorous political activity, he worked on his dissertation, entitled *A természettudományos fogalomalkotás szociológiájáról* (On the Sociology of Concept Formation in the Natural Sciences) [11, 12, 31]. From time to time, he published parts of this work [16, 22]. Comparing these two papers, it becomes clear that they have common parts, which are almost verbally identical. It is very natural to suppose that these common parts were parts of his – later on, lost – dissertation, too. This hypothesis is strongly supported by the passages from the official evaluative essay of Sándor Karácsony, the opponent of his dissertation, from July 8, 1947: “... the dissertation itself was not an idea rushed into the author’s mind, it was based on two previous publications in serious places. One of them appeared in the Athenaeum under the title *Criticism of the idealism in physics*, while the other

(*Modern physics – modern society*) appeared in a thick volume for teachers entitled *Továbbképzés és demokrácia*.^{9a}

In the identical parts of these works, he considered the problems of modern physics (quantum mechanics, theory of relativity, the physical world-view) in a social context. His paper [16] in the *Athenaeum*, which was the journal of the Hungarian Academy of Sciences and the Hungarian Philosophical Society, begins as a review of Susan Stebbing's book *Philosophy and the Physicists* (London, Pelican, 1943). However, in the review – similarly to his other review papers – he expressed his own ideas, too. He described Stebbing's analysis of Jeans' and Eddington's idealism, but, as he said, he wanted to go further: instead of following the immanent development of science, he tries to find an explanation for their standpoints in their social environment. In this respect, Lakatos analyzed the different historical concepts of nature, and compared their social characteristics and determinant factors. The concept of nature is, in fact, a social category, which expresses historico-social values. In the correct understanding of the distinctions between the Eddingtonian “familiar,” “physical” and “real” worlds, the concept of reification has an important significance. From the analysis of the capitalist production processes, Lakatos arrived at the necessary distinctions between the earlier rational, progressive bourgeois attitude and the later irrational, regressive bourgeois attitude toward nature and science. There is no doubt that in these analyses, Lakatos applied the notions and adopted various theses from *History and Class Consciousness* – especially that of its central study, entitled ‘Reification and the Consciousness of the Proletariat.’

Lakatos' other “dissertation” paper appeared in a book, which was a collection of papers published by the educational department of the Ministry of Religion and Education. The book was edited by the head of this department, and the studies had many illustrious authors, including, for example, the chemist Tibor Erdey-Grúz, the historian István Hajnal, the minister of education Dezső Keresztury, the sociologist Sándor Szalai, and the classical philologist Árpád Szabó. The aim of the book, entitled *Továbbképzés és demokrácia* (Further Education and Democracy), was to provide a high-level scientific background for school teachers, which was based on the new, more free and democratic ideology. In his contribution [22], Lakatos included most of his earlier review of Stebbing's book, and he filled it out with some further thoughts on the possible – depending on social conditions – positive and/or negative roles of atomic energy. Moreover, he inserted his earlier theses into the broader context of the philosophy and the sociology of science. He depicted the fundamental role of a dialectical view of the development of modern physics. The great achievement of modern physics was, he said, historicism's penetration of the natural sciences. Philosophers have to transcend Hegelianism, because only a Marxian analysis, applying the dialectics of the product-commodity-product relation and the concept of fetishism, can describe the real historical process of science. He emphasized the significance of historical materialism – not

dialectical materialism – for these analyses. Of course, these ideas are also borrowed from Lukács' *History and Class Consciousness*. (The English translation of this paper of Lakatos is included in the present volume.)

In 1948, he received his doctorate, *sub laurea almae matris*, from the University of Debrecen. As often mentioned before, all copies of his dissertation have been lost. From the above description of his earlier “dissertation” papers, however, it seems to be almost clear that, in his dissertation, he most likely presented a fundamentally Lukácsian analysis of the history of natural sciences, first and foremost of physics, based on Lukács' *History and Class Consciousness*. Perhaps it is also of significance that Lakatos nominated Lukács as the first on the list of twenty-three invited guests at his graduation ceremony.

His interest in physics continued when, in the beginning of 1949, he went to Moscow to study physics. He soon had to break off his “candidature” in Moscow, though, and it seems to us that he interrupted his study of physics for about two decades.

Unfortunately, we know only very little about Lakatos' activity in the party. It is very probable that he had some – informal – influences upon communist policy in some questions; for example, in the democratic reconstruction of the higher education system, and in the policy of science. However, this influence was never a very significant one. In this respect, he was more a tool in the hands of leaders at different levels of the party-hierarchy, than he was a determinant of events. The party was a common field encompassing different struggles – he was a good fighter, but his rivals were, as well. He personally knew some prominent leaders of the party, for example József Révai, who controlled matters of culture in the country. It seems to be unquestionable that Lakatos wanted to build up a career in the party; he did a lot to this end, but he was quite unsuccessful. At the end of 1947, for example, he organized, together with Király and some others, a radical leftist attack on the not-sufficiently-revolutionary Lukács' views – but the party, deeming it to be untimely, stopped it. (Lukács had tried to defend the freedom of the artists against direct political control, citing the idea that “poets are partisans and not soldiers of the party.” He was in the minority with his position.) Lakatos also had some connections to the dogmatic philosopher László Rudas, who started an attack against Lukács in 1949.

What Lakatos finally attained was a mid-level position in the Ministry of Education. For by this time, after all, he had dropped out of the closer Lukácsian circle – his earlier wife had become the wife of Szigeti, another member of the circle. The circle had ceased to exist. According to Szigeti, however, it is very probable that Lakatos was in contact with Lukács in 1948 as well, during his work in the Ministry, when he would, from time to time, ask for his advice.

In 1949, Lakatos' official career was interrupted and he was sent to Moscow to do scientific work, probably because of the consequences of a party investigation of his forcing the suicide of a member of their illegal

group five years earlier. In Moscow, his behavior was considered to be unpartly-like, which perhaps meant that he had been worsted in the local party fights. A few months later, he suddenly returned home. His unexpected transitions during this time, as well as some other developments of his life, give rise to the suspicion that, perhaps, he was doing work for some kind of secret service. However, this suspicion is not supported by any concrete evidence. His actions and behavior – whether or not they were determined by some secret service – can be explained as an intensified struggle to re-attain his lost, better social position. Returning home, he became a teacher at a famous secondary school in Budapest for a few months. There is a suspicion that he served as an agent in a demonstrative conceptional trial against József Révai [1], but the political situation in the country changed – in 1949, Révai also became a member of the government, as minister of public education – and Lakatos' fate took an unhappy turn.

Lakatos' political and scientific activity from 1950 to 1956

In 1950, Lakatos was imprisoned for three years, for reasons which remain unclear. They might have had to do with the above-mentioned Révai-matter, but a proper denunciation at the proper state or party organs appears a more natural explanation. The injurious trial and the awful conditions of the internment camp did not fundamentally destroy his communist conviction. Together with many others, he came free in 1953; however, he agreed with the political police to prepare secret reports on the activities and views of certain persons, including his closest friends. After his discharge he was practically ostracized from political life, but he tried to follow events as far as he could.

Between 1954 and 1956, he held a position at the Institute of Mathematics of the Hungarian Academy of Sciences, in Budapest. This institute was a very good research center for mathematics, full of world-famous members of the Hungarian mathematical school. Here – in an inspirational environment – he could develop his mathematical and philosophical knowledge. He translated two mathematical books into Hungarian, and obviously could discuss the fundamental problems of mathematical thinking with, among others, Alfréd Rényi, who also published his ideas about this topic in a dialogical form. There are no indications as to whether he met with Lukács in this period frequently or not. However, he – very probably – studied Lukács' *The Destruction of Reason*, which appeared at this time. (According to a letter of Szigeti, Lakatos was present at Lukács when the Hungarian title of the book was found out.^{9b})

In 1956, Lakatos gave a talk in a Petőfi-Circle debate on education on 28th of September. These debates of the Petőfi-circle about economics, philosophy, literature, etc., served as a forum for the renewal of the Hungarian intellectual life, following some over-controlled years. It is interesting that

Lakatos actively took part only in the discussion of the problems of education. A few months earlier, there had been a large debate-meeting about philosophy, with the participation of Lukács and chaired by Szigeti. Here, Lukács and some others sharply criticized the current low-level, Stalinist ideology and its representatives, and suggested a return to the original Marxist-Leninist values in the spirit of the 20th Congress of the Soviet Communist Party. Hundreds of intellectuals took part in this meeting. It is hard to imagine that Lakatos was not present at this meeting; however, he did not speak at it. Transcripts of these debate-meetings, including Lakatos' contribution to the discussions, have been published recently [27].

In his Petöfi circle talk, Lakatos concentrated on problems concerning the education of scientists. He emphasized the significance of the legitimation of the fundamental role of *talent* in socialist society. He castigated the earlier sectarian, utopian, and demagogue political and pedagogical practices, which overestimated the role of education at the expense of the role of talent.¹⁰ The talented had been considered as enemies of the socialist system, whereas the "simple," "grey," "disciplined" personality was cultivated. This practice produced societal and personal havoc – a caricature, at best, of the revolutionary, optimistic pedagogical ideals was being realized. Lakatos proposed the re-organization of the Eötvös College and made some other suggestions along these lines. On the other hand, he emphasized the basic right to *original thought*, especially in the cases of scientists and artists. He rejected the earlier, dangerous and meaningless ideological wars against empiricism, curiosity, and original thinking. In his speech, he applied the unusual phrase, "destructors of reason." Sectarian pedagogy condemned some fields of sciences as bourgeois sciences, and inspired fanaticism, instead of the real revolutionary Marxian thrust. In scientific education, it is necessary to emphasize respect for the facts, the demands of exact thinking and application of proofs. He demanded the recognition of the right of *dissenting opinion* in politics, and especially, in the sciences; this is reasonable, since only one man can be the first to see the truth.

It is clear that in his talk (what he actually read aloud – as a kind of declaration), Lakatos reflected at the same time upon his own fate, upon the situation of science in society, and upon socialist values in the society at hand. At this time, in other words, he considered himself to be a socialist scientist and a scientific political thinker (at least in the field of education policy). However, his standpoint concerning political values changed significantly with respect to his position in the forties. Now he criticized the impatient sectarian practice which he himself had once subscribed to, mocking for instance, some ideas of his earlier friend and ideological ally, István Király, and suggested that they should return to a quite scientific, searching, doubting, original Marxian ideology of practice in scientific and political life. I suppose this was, at the same time, a personal program for himself, too.

It seems to us that at this time, he was intensely interested in the problems of plurality and of the scientific methods of choice between these plural alternatives – in various fields. For example, he discussed with his acquaintances the possible consequences of the introduction of a pluralist party system instead of the single state-party, and at the same time he translated Pólya's book, *How to Solve It*, which focused on heuristics, and the methodology of reflection and criticism. These problems have “common” parts: what is the best way to select a solution of the actual problems, what kind of epistemology is acceptable for it, what is the role of originality in the solution, etc. It seems to be evident that Lakatos' political ideas and his concept of science changed during these years, but he preserved his way of thinking and considered the scientific and political activities and processes together to be a co-existing, parallel process – which he was able to recognize in his own personality, as well.

In 1956, his revolutionary practice was not so significant. In the end of November 1956, together with his new family, he went to Vienna, and later to England, where he soon became the well-known Lakatos. There were various reasons for his emigration. In Hungary, he was strongly interested both in a political, and in an academic career. Initially, he had good chances, nice perspectives, but for various reasons, he was not very successful in either field. It became clear, in those years when Lukács was arrested for several months, that a serious political position was impossible for him in Hungary. His personal rivals were in good academic positions, so his chances at an academic career were very poor. But perhaps his personal motivations were the most important ones. With his second marriage, he found a family which accepted him. I think his strong desire for total, unconditional acceptance, the unquestionable assimilation into a community, were very essential aspects of his personality. Because the family wanted to emigrate, he had to go with them. He said to his friends that his emigration would be only a temporary circumstance. On the other hand, he escaped, in this way, from the consequences of the unhappy aspects of his political past: the forcing of the suicide in the forties, and his having served as an agent for the political police in the fifties.

2. LUKÁCS' INFLUENCE ON LAKATOS' PHILOSOPHY

On the basis of the above-described biographical and historical details, it is quite obvious that Lakatos' philosophy was strongly influenced by Lukácsian ideas. But sometimes it is not so easy to demonstrate what is obvious. In our case, one source of difficulty was that Lakatos himself usually did not declare that Lukács was his intellectual mentor. In that age, moreover, Marxist ideology was represented in Hungary by many authors, making the identification of the Lukácsian version no simple task. Lakatos, of course, studied other Marxist authors, as well; for example, he cited some works of József Révai, Marx himself, Lenin, Erik Molnár, Stalin, Béla Fogarasi, etc.

In the literature, the Hegelian aspects of Lakatosian ideas are discussed sometimes. It seems to be clear that the young Lakatos got acquainted with and studied the Marxist interpretations of Hegelian thoughts. Later on, perhaps, he was able to separate the interpretation from the original Hegelian ideas – I think that this was unimportant for his general outlook, however. Moreover, the Marxist interpretations of Hegel significantly differed in level, complexity and orientation. For Lakatos, Lukács, the author of the very Hegelian book *History and Class Consciousness*, doubtlessly played the crucial role.

In the recent literature, Val Dusek and John Kadvany have discussed the Lukácsian influence on Lakatos [4, 9, 10a, 10b]. Dusek, in his very interesting and inspiring paper, disclosed two groups of similarities. He noticed in the Lakatosian MSRP the “polemical defence of rationality against irrationalism and the readiness to condemn his opponents as irrationalists of the most extreme kind,” which was an echo of the ideas in the late Lukács’ *The Destruction of Reason*. Moreover, the central role of ‘progress vs. degeneration’ in the Lakatosian philosophy of science reminds of the Lukács’ book. It seems to us that these relations undoubtedly exist – we will return to them below. Dusek also described another group of relationships: the specifically Lakatosian terminology, the concepts of “hard core” and “protective belt” recall phrases of the Leninist theory of party; and the sharp distinction between formal history and actual history was preferred by both philosophers. In our view, these are important and essential similarities, but they are less specifically Lukácsian ones. Of course, we can find these notions and ideas in his works, but this is the case in many other books and papers of that age. So, this is a direct influence of the political practice and ideology of their age.

John Kadvany stressed another aspect. He emphasized the Hegelian components of Lakatos’ philosophy of mathematics, and depicted his *Proofs and Refutations* as a “mathematical *Bildungsroman*” which is modelled after Hegel’s *Phenomenology of Spirit*. He also noted the appearance of Hegelian-Marxian dialectics in Lakatos’ philosophy of science, which can be associated with his adaptation of the ideas in Lukács’ *History and Class Consciousness*. In this respect, Kadvany observed a very interesting conflation of the concepts of “alienation” and “objectification” in Lakatos’ *Proofs and Refutations*, which reproduced the “Hegelian mistake” of Lukács’ *History and Class Consciousness*. In addition, he mentioned a public debate in England in the seventies, where Lakatos said that his original goal was to be a successor of Lukács.

Most parts of Kadvany’s analysis are reasonable; moreover, they can be supported by some elements of the intellectual development of the young Lakatos. As was demonstrated above, Lakatos already knew very well Lukács’ *History and Class Consciousness*, including its dialectics, in 1945, before he had met the author. He applied the notions and the basic view of this book in practically all of his early papers. Among others, Hegel’s

Phenomenology of Spirit also plays an essential role in Lukács' book; furthermore, Lukács gave lectures on this work of Hegel for a few semesters during the years 1945 and 1946 [45], which Lakatos almost certainly must have attended. The only mention of a Lukácsian view in Lakatos' late works supports this: "the Cunning of Reason, as Georg Lukács, in his more optimistic moments used to say, arrives at the mountain top via a twisting, winding road and not via the steep and direct route."¹¹ In the thirties and forties, Lukács changed his opinion about the ontological aspects of the Hegelian view; so also did Lakatos have to re-think the positions of the young Lukács, when confronting the ideas of the older one.

The Lakatosian reproduction of Lukács' "mistake," i.e. the conflation of the concepts "alienation" and "objectification," can already be found in another version in his early papers [16, 22], where he stated that "natural things ... as the reified forms of human relations obtain quantitative features ... the quantities of the reified nature turn grey both nature and man in an imperialist way, and deprive them from all other features."¹²

Dusek and Kadavy recognized different important Lukácsian influences on Lakatos. It is very important, that these influences on the young Lakatos were preserved, and that they returned in his well-known later works. In the following, we try to summarize our view of the Lukács–Lakatos relationship. Two stages of this relationship will be distinguished: in the first period, Lakatos obtained from Lukács the theory for his political practice, while in the second period he obtained the political practice for his theory.

2.1. Political practice of rational theory

First of all, it is important to distinguish between the indirect and direct influence of Lukács on Lakatos. Indirectly, Lukács was a model for Lakatos, a model of the communist thinker, who can serve as politician *and* philosopher, who wants to bring into the practice revolutionary ideas, and who can suggest ideologically well-grounded approaches to the practical problems of the new society. In other words: the main question was how to find the right relation between practice and theory. In this respect, Lukács represented a very attractive alternative regarding the level, as well as the content. The young Lakatos could study this point in the personal life of Lukács, as well as in the activity of his intellectual "heroes" such as Lenin, Goethe, and Thomas Mann. Lukács analyzed and emphasized the theory-practice relation mainly in the political sphere and in art, fields in which he was able to understand, distinguish and represent the progressive and regressive aspects as the rational and irrational alternatives.

In accordance with the dominant aspirations of the age, the young Lakatos also wanted to unify theory and praxis, spirit and action, thought and life. Already in his second printed paper he cited Thomas Mann with wholehearted enthusiasm: "Act as a thinker and think as an activist!"¹³ Sometimes his aspirations met with success and sometimes they did not, but he tried to

follow this idea throughout all his life. Born into an irrational world and, in spite of this background, attempting to live a life under the rule of pure rational decisions – this may have been a very important effort for the young Lakatos. He was described many times as a very rational person, without any sign of emotion. This characteristic became visible in his decision to sacrifice the “weakest link” of the secret group, and in his neutral report about it; furthermore, his unscrupulous determination to win in the debates, in his irony, etc. However, a follower of this attitude often, allegedly, already owns the truth, and does not search for it. The source of this type of truth and rationality is some personal, ideological or institutional authority. The young Lakatos accepted a radical, more or less dogmatic communist value system and followed it as the most rational approach to both personal and social problems. He considered these values to be rational, because he was convinced of their progressive character. In this period, Lakatos showed no interest in the search for rationality, but he applied an “abstract version” which, for him, was above question.

In this respect, Lukács’ messianic Marxist book, *History and Class Consciousness*, was an important “theoretical background” for the young Lakatos. The above-mentioned early papers demonstrate, moreover, that the influence of other Marxist authors on his philosophical views was practically negligible. To give an interesting illustration, we can find there the name of Engels in only one, unimportant place. It is well-known, that in the *History and Class Consciousness*, Lukács criticized and rejected Engels’ views on the dialectics of nature, in contrast to other Marxist authors of the time. Lakatos’ implicit adoption of the Lukácsian criticism was obviously a conscious decision.

A further important aspect of the Lukácsian attitude is philosophizing in a political context by putting the problems into a world-historical perspective, and considering any kind of current problems from the point of view of class struggle and the progress of mankind. If the “current” morality confronts with these “eternal” political values, the former can be the loser. This situation can produce a special kind of personality – as somebody remembered: Lakatos was “the most immoral man I had ever met.” In our view, the source of this attitude is a rigid and unconditional insistence on the standards of an abstract rationality in all fields of human activity. This preference of an abstract, theoretical rationality can be based on the strong belief in the historical progress of mankind, a belief maintained in spite of an irrational political and everyday practice. This practical and intellectual situation highlights, in an extraordinary way, the problem of how theoretical and practical rationality relate. ‘*How can we find the true relation of theoretical and practical rationality*’ is a very central problem for Lakatos. This is the Lakatosian dilemma, a dilemma which is clearly and analogously expressed both in the political and the scientific sphere, in those fields which were of utmost importance to Lakatos. So it is very natural that he tried to interrelate the solutions of problems of the relationship between practical and theoret-

tical rationality in politics and the sciences. In pursuing this line of thought, four periods of Lakatos' intellectual development can be distinguished.

1. *At the beginning of his political career*, between 1945 and 1947, Lakatos' radical political praxis and the ideas of *History and Class Consciousness* of the "young" Lukács were, more or less, harmonized with each other. The sectarian political practice and the utopian, messianic theory were similarly based on the absolute, indubitable possession of practical and theoretical certainty. Lakatos applied these ideas in his early philosophy of science, too. Dusek [4] mentions the similarities between the historicist, subjectivist interpretation of Kuhn, and some views of the *History and Class Consciousness*. Accepting this view a comparison of the philosophy of science of the young Lakatos and that of Kuhn, seems to be a promising task. However, in this period Lakatos had to confront the fact, that the current, the "real" Lukács had shifted to new philosophical and political ideas and, moreover, radically opposed his own earlier views. For example, Lukács sharply criticized the current bourgeois philosophy [34, 35], but he supported the alliance of the proletariat and the citizens within the framework of a Popular Front policy. In this case, only the proletariat can be identified as the historical agent of the theoretical rationality, but in the practical rationality, i.e. in concrete political practice, the task is shared with its alliances. The early political papers of Lakatos [15, 19, 23–25] reveal that he theoretically accepted and practically propagated these political views. But he did not apply them in his philosophy of science – at least not at this time. This would happen only about 25 years later. In this way, between 1945–47, Lakatos' political philosophy and philosophy of science were essentially influenced by the "earlier" Lukács, but his political views were motivated (and moderated) by the "current" Lukács.

2. *During the next period*, between 1948 and 1950, Lakatos became more radical than Lukács in political practice. So a disharmony emerged; first, between Lakatos' own practice and his Lukácsian political thinking, and later between the two personalities: if Lakatos wanted to preserve the harmony between his practice and his thinking, he had to move away from Lukácsian ideas. During this period he opted for the primacy of political praxis and, from this position, he criticized the Lukácsian political philosophy and ultimately oriented himself towards other, more orthodox communist thinkers, such as Révai and Rudas. He abandoned the actual Lukácsian ideas, because he adopted a different vision of practical progressive alternative of social development and, consequently, of rationality. According to personal recollections, he considered Lukács' standpoint, at the time, to be 'nonsense.' In his criticism of Lukács, however, he preserved the Lukácsian background: the rational point is a decision in favor of progress – only Lakatos' definition of progress was changed and phrased in accordance with the "day-to-day" political rationality. In this period, he did not create a

theory of rationality, did not publish philosophical or scientific papers, but he tried to profit from his abilities in the struggles of party and state bureaucracy. He could study closely, and follow inventively, the logic of the dogmatic political practice of the age. But in the end, he became a loser in these struggles. Hence, he was able to experience both aspects of the workings of power: earlier, he had made decisions against others in the name of an abstract rationality, and later, he became a victim of the same mechanism. During this period, Lakatos maintained his goal of becoming a leading politician and thinker, and did a lot to this end, but his imprisonment made impossible, or at least postponed, the realization of these hopes.

3. *During the next period*, between 1953 and 1956, Lakatos was practically unable to take part in political life. But he tried to rethink the practice-theory relation in all the fields of politics, philosophy and the sciences (especially in mathematics). By this time, he had had enough experience of the political and social practices of fascism and the current socialism, and he obviously wanted to find a theoretical explanation of these developments. To this end, he had to place the concept of rationality into a more historical, individual and pluralistic context. As an employee of the Institute of Mathematics, he studied, besides his mathematical readings, the works of Lukács, Hayek, and Popper.

Lukács' *The Destruction of Reason* [36] appeared in 1954. In this book, the controversial political-practical consequences of abstract philosophical ideas were demonstrated, and the concepts of rationality and irrationality were interpreted in a socio-historical context. Both aspects were very important for Lakatos.

In the 1940s and 1950s, many philosophical analyses confronted the rise of the fascist ideology. Let us mention the works of Adorno and Horkheimer, Popper, and Lukács. In their book, *The Dialectics of Enlightenment*, Adorno and Horkheimer specified de-contextualized *rationality* as an essential source for the fascist value system. On the other hand, both Popper (in his *The Open Society and Its Enemies*) and Lukács (in *The Destruction of Reason*) considered the acceptance of – and adherence to *irrationality* as the basic element of fascist thinking. However, their concepts of irrationality (and rationality) were very different. Popper defended rationality against the followers of dialectics, Hegel, Marx, and against any historical or political contextualization. *Rationalism*, for Popper, is *an attitude of readiness to listen to critical arguments*. The rational and the irrational confront each other. Against the background of irrationalism, he found the domination of emotions and passions. However, the decision for rationality is based on an irrational belief [40, 13].

In Lukács' work there is another, absolutely opposite concept of the rational and the irrational. The problem of rationality and irrationality was a standard element of his worldview, which appeared in very different versions in his works. In 1919, for example, he considered it with regard to

the relation of bourgeois vs. proletarian culture; in 1924, in *History and Class Consciousness*, he put the problem into a social context; around 1935, as a part of Popular Front politics, he identified two types of bourgeois, the reactionary bourgeoisie and the citizen, who was interested in progress and humanism; in 1943, in his Tashkent manuscript, entitled *How Did Germany Become the Centre of Fascism?* he applied his ideas to German culture; in 1947, in his papers and in the book *The Crisis of the Bourgeois Philosophy*, and finally in 1954, in his *The Destruction of Reason*. The final result of his efforts was a socio-historical contextualization of the problem. According to his final position, *the rational attitude is a decision in favor of progress*, the readiness to choose the progressive alternative, while irrationality can be considered as an inability to choose the progressive alternative. To elaborate: for a rational decision, we must apply the dialectics of Hegel and Marx, must consider the concrete social and political situation, must elaborate a careful and critical analysis of the (world)historical processes, and so on. This decision is based on our understanding and consciousness.

Lakatos knew perfectly these Lukácsian ideas. Aside from in his early studies on *History and Class Consciousness*, it is evident from his above-cited papers that, in the mid-forties, he followed the ideology of Lukácsian Popular Front politics. At the same time, he studied Lukács' works on the crisis of bourgeois philosophy. For example, he reviewed [19] a Lukács' paper that appeared in the journal *Társadalmi Szemle* [34]. (It is perhaps interesting, from the standpoint of the development of the Lakatosian views, that in this paper Lukács analyzed the details of the relationship between intuition and irrationalism.) From his Petőfi-circle talk in 1956, it is clear that Lakatos studied *The Destruction of Reason*. On the one hand, he cited its title in a very special context; on the other hand, his suggestions are in accordance with the tenor of this book. He decided in favor of progress (in the question of the training of scientists), he described this progress and declared the rationality of his proposals. In this talk, we can find thoughts which express some views of Popper and Hayek on empiricism, pluralism and personal freedom, but the Lukácsian view is dominant. This is very natural. In those days, Lakatos considered himself to be a socialist thinker, and the Lukácsian position had, for him, the clear advantage. On this basis, he was able to consider the true, progressive socialist practice to be rational, and to criticize the irrationality of the retrograde features of the earlier regime. In this way, he could again construct a unity of political practice and philosophical theory. In this "solution" of the problem, he continued to accept the identification of the notion of rationality as a "decision in favor of progress," but he studied the *methodology* and emphasized the significance of *the decision-making process*. As its important elements, Lakatos enumerated the individual, critical, and pluralistic aspects of the methodology of the decision process. This methodology is equally useful in the case of problem solving in mathematics, and in the case of the correction of the wrong political practices of socialism.

4. *During his fourth period*, in England between 1956 and 1974, Lakatos did not continue any practical political activity, but he preserved his interest in political matters. It seems to us, however, that his point of view changed in the sixties and, perhaps, the political changes in 1968 (the Czechoslovak events and the student movements in 1968–69 at LSE and other universities) caused a special kind of turn in his attitude.

In his early years in England, he was influenced by Popperian ideas. During this time, he moved away from Lukácsian views and accepted the Popperian attitude. As Feyerabend remembered, “Imre Lakatos ... attacked me in almost identical terms: ‘Why did you say X when Popper says Y?’”¹⁴ This is probably valid in the case of the concept of rationality, as well. The Popperian concept of rationality – and especially the Popperian methodology, which supports the assertion of rationality – were acceptable to him, but in these years he preferred theory and disregarded political practice. However, later on Lakatos gradually worked out his own position. Feyerabend says, ironically: “Imre was a rationalist of sorts – at least that was how he presented himself, as a crusader for reason, law, and order. He travelled all over the world trying to encourage doubtful rationalists and to recommend his methodology as a nostrum.”¹⁵ For us, now, the results of this crusade would be interesting. Finally, his position moved far away from the Popperian conception. Listen again to his anarchist-contemporary: “I always felt that Imre’s rationalism was not a matter of personal conviction, but a political instrument that he would use or put aside as the situation demanded.”¹⁶ Feyerabend was right. What he did not say, however, was that this was the Lukácsian aspect of Lakatos’ position. This is the decision ‘in favor of progress’ depending on the situation, which has always a political dimension.

In our view, as Lakatos became more sensitive to the current political practice, he became more critical of Popperian ideas, as well, including Popper’s concept of rationality. (His estrangement from Popper became significant from the last years of sixties.) Parallel to this, he returned to the earlier, well-oiled Lukácsian conception of rationality, as another representation of the relationship between theory and political practice. This return, of course, did not mean his return to communist ideology. His momentary political standpoint was sometimes outspokenly anti-Communist, but in contrast to these opinions, he accepted this very essential aspect of the political philosophy of Lukács. Moreover, he applied it to his philosophy of science.

2.2. *Rational theory of political practice*

Lakatos’ philosophy of science (first and foremost his methodology of scientific research programs) can be considered as an abstract, theoretical representation of a special kind of political practice. This political practice had two typical forms, and different descriptions in Marxist political

thought. Both of them were well-known to Lakatos, partly from his own practice, and partly from Marxist political theories, especially from Lukács' views and writings. In the Marxist political system, concrete *political practice* and abstract, theoretical values form a special kind of unity. It seems to us that for Lakatos, this system was the model of the scientific system, where the unity of *scientific practice* and theoretical rationality could be considered. Some kinds of parallelisms and interrelatedness between political and scientific progress were familiar to Lakatos from the beginning of his intellectual development. He had already faced a version of it, for example, in the works of his friend, Árpád Szabó, in Debrecen. Lukács' *History and Class Consciousness* provided a theoretical framework for these ideas. Lakatos took into account this interrelatedness in his last years, too. As Congdon cites Lakatos' opinion, "in England Lakatos remained convinced that there could be made an 'analogy between political ideologies and scientific theories'" [2]. The analogy is very clearly expressed, between political and scientific treatments of the relationship between theoretical and practical rationality, in the problem which was so essential for Lakatos all during of his life. The methodology of the production of the theory-praxis unity is socio-historically determined, and almost independent from the field of the human activity. The practical realizations of the "abstract," rational political values form the actual political history, and in the same manner the practical realizations of the "abstract," rational scientific values produce the actual history of science. However, "true" historical processes can be reconstructed by considering only the abstract aspects of the processes. So studying the working and development of the political sphere, we can describe some aspects of the scientific sphere.

The political practice in question is the communist practice of the years 1940–50 in Hungary. The organization of the party and the alliance policy of the party represent the two aspects of this practice. The party was organized according to so-called democratic centralism, which entailed a highly hierarchical organization. Under the influence of earlier illegal activity and the strong Stalinist environment, the center of the hierarchy became the representation of every important value (the right knowledge, the ability to make decisions, intellectual and material richness) and the peripheries lost their values, they became the simple operational organs of the center – although, the peripheral organs belonged to *their* respective centers. This organizational structure was multiplied on many levels of the political system, with the party as its central unit. In this way, any kind of criticism or attack against the political system reached at first only the "protective belt" of political power, so that the "hard core" of political power (or of the research program) could forbid the direction of the criticism at itself. On the other hand, this structure could penetrate into one's personality as well, and made it possible to sacrifice oneself (or somebody else) for universal revolutionary values. In these cases, individuals could serve as the "protective belts" of the "hard core" of the ideology.

The alliance policy of the party had a similar function. This policy was embodied by the organizational framework of the Popular Front. The “vanguard” of the proletariat was the party, which governed its struggle for the realization of more perfect social relations. In the organization of the Popular Front, the proletariat was the “vanguard” class and coordinated the struggle of its alliances – the peasantry, the intellectuals, and sometimes the citizen strata of the bourgeoisie – for the common purposes, for the more perfect social relations. The role of these alliances was clear: to defend the hard core of the political system as a protective belt. If everything turns out well, the alliances (the “auxiliary hypotheses”) could survive the continuous attacks against the progressive forces and progress further, together with the hard core, but in the worst case they would sacrifice themselves for the progress of the hard core. As a result of the application of the political rules of the alliance policy, progressive, theoretical, abstract ideas could penetrate into the masses and the whole society could emerge to a higher level, and achieve a more rational form.

Lakatos had a clear picture of the structure of the socialist political system. However, there was no real “theory” of this practice. The elements of the theoretical descriptions were written mostly in various party and state rules, or were embodied in laws, traditions and morality. However, Lakatos knew and sometimes applied the different Lukácsian descriptions of some aspects of this system in his early papers, as has been demonstrated above.

On the other hand, Lukács suggested an understanding of progression and regression, which would put the problem into a socio-historical context. He was able to present a theoretical distinction between the progressive and regressive strata of the bourgeoisie, and to explain the emergence of German fascism by applying the concepts of rationality and irrationality. In 1956, on the basis of Lukács’ explanation, Lakatos was able to identify the progressive and regressive aspects even of socialist practice. In this way, the Lukácsian theoretical description served as a valid explanation of some kind of social practice. The key element of his philosophical description was his special interpretation of rationality, as a decision in favor of progress. From this standpoint, the necessity of dialectics, and the significance of the social and historical aspects are evident consequences. Lakatos, when constructing his MSRP, applied all of these details of the Lukácsian philosophy.

Let us give a brief outline of Lukácsian elements in Lakatos’ MSRP.

a) The socio-historical context: Lakatos considers research programs instead of theories or, as he said, “the problem of appraising historical series of theories, or, rather, of ‘research programmes’... ”¹⁷ A research program is a special kind of collection, in which theories are not isolated and independent, but interconnected entities. This view ensures the applicability of a simple social system analogy. The historical perspective was an essential aspect of the Lukácsian analysis of progression; however, it can also be associated with a Hegelian attitude. But a pure Hegelian view would be less useful in the

consideration of theoretical and practical aspects of the programs, because of the determinant role therein of abstract reason.

b) The concept of progress: In the Lakatosian MSRP, the concepts of progression and degeneration play a fundamental role.¹⁸ As Dusek mentioned, this can be a sign of his Marxist (Lukácsian) philosophy of history. The new research program will be chosen, if it is better from a theoretical, empirical and heuristic point of view. “One learns not by accepting or rejecting one single theory but by comparing one research program with another for theoretical, empirical and heuristic progress.”¹⁹ And “thus progress and learning are marked by instances verifying excess content rather than by falsifying instances.”²⁰ This means that Lakatos applied the universal features of progress, but replaced them with the concrete aspects of scientific progress. It is worth mentioning that he distinguished between the concepts of empirical and theoretical (and heuristic) progress.

c) The concept of rationality: Perhaps this is the most important element of the Lukácsian influence. The Lukácsian concept of rationality (decision in favor of progress) appears in clear form many times in the MSRP, especially in the analyses of crucial experiments,²¹ but even in the Lakatosian metacriterion of the methodology, as well: “We reject a rationality theory only for a better one, for one which, in this quasi-empirical sense, represents a *progressive shift*.”²² The Lakatosian progressive shift unifies the theoretical, practical (or empirical) and heuristic aspects of the progression; that is to say, the decision in favor of progress can somehow unify theoretical and practical rationality. In this paper, Lakatos underlined the significance and necessity of a *decision* about the demarcation criterion as a fundamental problem of the philosophy of science, and he sharply criticized Polányi, Kuhn, and Feyerabend because of the dangerous characteristics of their suggestions for this decision. His Toulmin study [30] has similar and, perhaps, much better expounded standpoints.

d) The alliance policy: The “protective belt” around the “hard core” of the program, and their functioning, are the perfect representations of the organization of party and Popular Front political praxis. In this respect, the negative heuristic expresses the ruler position of the “vanguard,” while the positive heuristic expresses the operational abilities of the centers of power; of a middle-level state official in a ministry, for example, as Lakatos was. This element of the Lakatosian philosophy can be compared with his own political practice and, at the same time, with the Lukácsian Popular Front ideas. In the first case it can be stated, perhaps, that Lakatos’ evil forcing of the suicide of the young girl in their illegal group was served with removal on a truly scientific level. However, the fundamental significance of the second relation seems to be more reasonable. Lakatos, in his early political papers on educational policy, had already discussed and expansively applied these

political ideas to many different cases, so he had only to return to his own, old thoughts.

e) The historical progress: Applying these ideas, he was able to identify a more meaningful historical process in the case of science, as well; that is to say, “progress in the theory of rationality happens to be marked by historical discoveries or rediscoveries: by the reconstruction of a growing bulk of value-impregnated history as rational.”²³ In this process, the progression of the unity of practice and theory can be considered and constructed.

As Congdon mentioned [2], in England Lakatos wanted to elaborate upon his political philosophy. Unfortunately, he could not do that, so we can study his systematic political thinking in its “unhappy” form, in his methodology of scientific research programs.

3. CONCLUSION

Lukács and Lakatos were very different philosophers. However, both of them were confronted with the socio-historical reality of Hungary in the first half of the 20th century. Their hope for the best solution to social problems led both philosophers to become Marxists. This decision was a fundamental constituent of their intellectual and practical life. Accepting the challenges of both theoretical and of practical tasks in the building of a new society, they were interested in political practice, as well as in the philosophical foundations thereof. Their Marxist attitude was eminently expressed in the methodology of understanding the relation between theory and practice. In this view, the (political, scientific, everyday, etc.) practice is primary acts as the source of experiences and as the final criterion for theoretical truths, but it would, in and of itself, be blind. These practices have to be based on and oriented by a theoretical system of (political, scientific, everyday, etc.) values. History (of politics, science, everyday life, etc.) is progress towards the realization of these value systems – mankind is the author *and* the actor of its own drama. In the elaboration of acceptable values, modern thinking prefers reason and consciousness, so there is a very intimate interrelatedness between the relations of theory-practice and rationality-irrationality. Therefore, these relations have to be considered and treated together in a complex system. A characteristic and important aspect of this complex problem is *the relationship between practical and theoretical rationality*.

The Lukácsian suggestion to decide in favor of progress ensures a unified solution to these problems. This progress is meaningful only in a (social, scientific, everyday, etc.) historical context. Choosing the progressive alternative, we decide using theoretical rationality and its practical realization, and see that the rationality of a theoretical value system can verify itself only in its actualizing practice. In other words, the decision in favor of progress is a common criterion of theoretical and practical rationality. On the other

hand, progress also has practical and theoretical conditions. Our decision can lead to different practical and theoretical consequences, but we are living in the realm of rationality, under the universal domination of reason. The actual version of the unification of theoretical and practical rationality is a question regarding the concrete historical problem-situation.

Such a treatment of the problem of rationality differs markedly from many other approaches. Because of the essential and special role of practical progress (in his MSRP, Lakatos emphasized “empirically progressive” aspects of the programs) this view can be sharply distinguished from the Hegelian and Popperian views. Of course, the above “Marxian” approach also has many variants besides the Lukácsian one. This is a, more or less, Eastern European solution of the problem. In this underdeveloped region of the world, social practice is far from rational, but in progressive practice, the rational perspective can be seen, and it seems to be practically and theoretically an alternative which can be a choice for local progress. The unconditional necessities of this practice invoked from time to time messianic, realistic, progressive and degenerative theoretical attitudes and movements. During his development, Lukács formulated newer and newer versions of this problem. Unfortunately, there is no room here to follow the details of the analysis of these ideas.

It would be necessary to emphasize, that the Lukácsian “decision with the progress” is primarily a *methodological principle*, and does not directly state anything about the concrete content of progress. (Of course, as Lukács said, any relevant methodological problems have some consequences regarding content as well, but these consequences can be temporarily suspended.)

Lakatos accepted and, in practice, continuously applied this Lukácsian methodological principle in his (early and late) works and in his personal life, as well. As a clever young member of an outlawed community, he became sensible to social injustices and made a decision for practical progress, i.e. for the communist movement. He was able to find a strong theoretical fundament of his practical aspirations in the theory of historical materialism, mediated first of all by the book *History and Class Consciousness*. The concrete content of his political activity, the concrete realization of progress was a question of the concrete situation. Sometimes he was with Lukács, sometimes he was against him, depending on the actual content of their views on progress – but in every case, he remained grounded in the Lukácsian methodology. When he went to England his attitude became weaker for a while, but in the late sixties he returned to this methodology. During this period, the disharmony between his methodology and the contents of his (mainly political) statements had developed a significant and extraordinary character.

Lukács considered the general progressive (and regressive) versions of the relationship between practical and theoretical rationality (and irrationality) in philosophy, and studied their consequences mainly in the political and aesthetic sphere. The latter appeared in his political writings and in his theory

of aesthetic realism. Faced with its fundamental significance, Lakatos analyzed their appearance in the fields of politics and sciences.

At the beginning of his development, he accepted the methodology *and* the most of the contents of Lukácsian ideas in the political and scientific spheres. Later, he disregarded the Lukácsian contents of this thinking, but accepted its methodological elements further on. In his following periods, Lakatos tried to involve some elements of the Popperian methodology into the discussion and apply them to his philosophy of science. In the end, he practically returned to the Lukácsian position, at least regarding his main methodological principles, and applied them to his MSRP. However, it was not a return to the contents of the Lukácsian progress concept and his communist value system, and he professed on many occasions his anti-Communist views.

In our view – at least with regard to methodology – Lakatos moved his whole life in a Lukácsian framework. At the beginning of his intellectual life, he accepted the position taken by Lukács in the mid-twenties and, after some twists and turns, finally “returned” to the young Lukács of the years following 1910 in Heidelberg. During that time, Lukács himself said that he tried to combine left wing ethics with a right wing epistemology. As a late recapitulation of this intellectual position Lakatos, in the late sixties and early seventies in England, tried to combine *right wing politics with a left wing epistemology*. Lukács later realized his own mistake.

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NOTES

1. Regarding the purposes of this paper, we found very useful the biographies written by Hermann [8] and Szerdahelyi [42a]. In addition to these books, we took into account Lukács’ autobiographical sketch [37] and his works [39, 43, 44].
2. In this respect, we first of all learned (and later, somehow, interpreted) the many important data of Lakatos’ life and activity from Jancis Long, Alex Bándy, József Szigeti, Dénes Zoltai,

- Éva Pap, Gábor Vajda, Márta Fehér, Donald Gillies, György Litván, László Sziklai, Sándorné Kántor, and the participants of the two Lakatos workshops.
3. See [11], p. 228. Lakatos' photo appeared in the *Középiskolai Matematikai és Fizikai Lapok*, vol. 14, 1938, p. vii.
 4. This is mentioned in the memoirs of his classmate in the Jewish Gymnasium, [38] pp. 95 and 108–109.
 5. A mention of the first case can be seen in [38], pp. 95. and 147, while some remarks on the second one can be found on pp. 147–151.
 6. The [21] reference reviewed very shortly the recent Hungarian publication of a popular book of that age.
 7. [38], p. 150.
 8. The written and oral accounts of this event were presented and treated in different versions by Long [31], Congdon [1], Freudenthal [6], Kántorné [12] and György Litván.
 - 9a. Karácsony's opinion is cited in [12], p. 280.
 - 9b. A letter from József Szigeti to L.R. (2/10/1999).
 10. This view of Lakatos can be considered within different contexts. It probably reflected the general ideological, the concrete personal and, perhaps, even the scientific aspects of the problem as well. (Lakatos' second wife, Éva Pap, studied biology and his father-in-law was a researcher in maize development, where the relationships between "inherited" and "acquired" properties are a central problem. The famous Lysenko affair even emphasized these problems for general public, as well. These problems had pedagogical consequences, which were in accordance with the pedagogical suggestions of Lakatos' talk.)
 11. [30], p. 238.
 12. [22], p. 361.
 13. [15], p. 88. From the context of the citation, it is obvious that Lakatos' views on Mann were based on the [33] Lukács study.
 14. [5], p. 109.
 15. *Ibid.*, p. 129.
 16. *Ibid.*, p. 130.
 17. [28], p. 318.
 18. See, for example, [29], pp. 33–34.
 19. [28], p. 320.
 20. *Ibid.*, p. 321.
 21. [29], pp. 68–73, 88–93, etc.
 22. [28], p. 322.
 23. *Ibid.*, p. 323.

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