Projecting the Light of Democracy
Michael Polanyi’s Efforts to Save Liberalism via an Economics Film, 1933-1948

Gábor István Bíró

PhD Dissertation
Thesis booklet

Supervisor
Dr. Gábor Áron Zemplén
Department of Philosophy and History of Science

2017
# Table of contents

1. Background and motivation ..................................................3
2. Aims of my research ............................................................5
3. New Findings ........................................................................6
4. Publications related to thesis findings ......................................12
5. Further (selected) publications .............................................13
6. References.............................................................................14
1. Background and motivation

So far the Polanyi-scholarship has clustered around three scientific communities: The Polanyi Society, The Michael Polanyi Liberal Philosophical Association and The British Personalist Forum, and their related journals (Tradition & Discovery: The Polanyi Society Periodical; Polanyiana; Appraisal). Studies on Polanyi have been mainly concerned with his chemical work and his later philosophical writings. Historians have started to study his Berlin Years, but his Manchester Years, and therefore his disciplinal shift towards social sciences, as well as his economics remained almost uncultivated. Recently, a few articles have been published on Polanyi's Visual Presentation of Social Matters (1937a), On Popular Education in Economics (1937b) and his film, but no detailed account has been given on Polanyi's visualization of economic processes in the 1930-40s. There has been no account with an aim to find the commonalities in his early economic writings. These writings were rather seen as only loosely connected fragments with limited importance and relevance to Polanyi's later philosophy.

However, I have found that there is a common lead in these writings in which Polanyi developed a sociotechnical vision he described as "democracy by enlightenment through the film" (Polanyi 1935, p. 1.) and that these are worthy of study for a couple of reasons.

*The aim of my dissertation is to show how and why visualizing and saving a kind of liberal economics was connected by the sociotechnical visioning of Michael Polanyi in the 1930-40s.*

I became curious about how Polanyi developed his sociotechnical vision during his disciplinary shift and how he struggled to extend his individual vision to a widely held social imaginary in order to save liberalism, and our society during one of the darkest periods of human history. I hope to be able to map his efforts and the main obstacles for him to help those who are also working for the betterment of the society in similarly desperate
times when the world is again "in severe need to be able to manage its fate based on knowledge and not mindless passions" (Polanyi 1938a, p. 1.).

During the PhD program I specialized to science and technology studies (STS) because I thought that the interdisciplinarity and the multiplicity of approaches could provide a fertile niche for my multi-faceted research on Polanyi. The field that "explores the transformative power of science and technology to arrange and rearrange contemporary societies" (Felt-Fouché-Miller-Smith-Doerr, 2016, p. 1.) seemed to be a promising place for a research focusing on how an individual vision based on an economics film was intended to make societal macro-effects to save liberalism, and eventually our society.

After studying the latest STS literature I have written a couple reviews about a few recently published books (Visual Cultures of Science: Rethinking Representational Practices in Knowledge Building and Science Communication (2005), Representation in Scientific Practice Revisited (2014), Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power (2015), The Handbook of Science and Technology Studies, 4th ed. (2016)). From the latter work, I realized that there is a growing interest in STS both for visual studies and social sciences, thus a dissertation with entanglements of economics and visual representation might also fit into the newest trends of the field.

In my attempts to study how Polanyi's individual vision, based on his film and his economic thought struggled to became a social imaginary, I relied on Jasanoff's recent concept of sociotechnical imaginaries (Jasanoff - Kim, 2015). In the analysis of Polanyi's practices shifting and transgressing boundaries of economics, I built on the concepts of boundary work (Gieryn, 1983), boundary object (Star - Griesemer, 1989) and boundary shifter (Trocco - Pinch, 2002) in order to be able to view from different angles what Polanyi was doing and why. Polanyi's visualization of economic processes might be seen, in a sense, as bridging his policy-oriented claims of social transformation and his individual boundary efforts to become and started to be seen as a social scientist, and by doing this giving another reason to
reconsider the still commonly used High Church - Low Church (Fuller, 1997) distinction in science and technology studies.

2. Aims of my research

After getting introduced to Polanyi studies by Zemplen, Feher, Margitay and Mullins in 2014, I decided to focus my research on an almost uncultivated part of Polanyi's heritage, his early economic thought. My first approach to the topic was lead by the intention of discovering a less known part of the work of a well known physical chemist and philosopher. However, I shortly realized that my research could be interesting for a couple of other reasons to a diverse array of scholars (economists, STS scholars, historians and philosophers of science).

Economists are probably mostly interested in how Polanyi developed his economic thought during the first clashes of the Keynes-Hayek debate (1930-40s), and how he managed to be seen as having ties to both Keynes and Hayek when the latter was generally considered inconceivable.

STS scholars might find a plethora of tid-bits, many of them fitting into the recent trends in the field. First, it covers Polanyi's disciplinal shift to become a social scientist, and shows how his transgressing and shifting of boundaries of economics was connected to his individual career change and change of identity. Second, it follows the development of Polanyi's sociotechnical vision of "democracy by enlightenment through the film" (Polanyi 1935, p. 1.) which connected visualizing and saving a kind of liberal economics based on his film, Unemployment and Money: The Principles Involved (1940b). Third, it is being explored how Polanyi's film as a boundary object connected the social worlds of economists, economics tutors, film experts, managers, and others, and how this was connected both to his individual boundary shifting and to his struggles for a large-scale social transformation for democracy. Fourth, it shows how and why Polanyi has been doing boundary work against extreme liberalism and economic
collectivism and for a new kind of economic liberalism with social consciousness. And last but not least, Polanyi's visual physical analogies of economic laws have been studied in relation to Angell's, Mooney's and Neurath's similar methods in the 1930-40s. It is being explained how the Polanyian method of visualizing economics has been connected to his sociotechnical vision.

HPS scholars less concerned about science and technology studies could be more interested in how Polanyi developed his network of fellow intellectuals after leaving Berlin in 1933 and how World War II affected his work in the studied period. Extensive archival research examining Polanyi's correspondence shows who and how might have influenced his activities, how others saw him and what he was doing, and how he changed his discipline in this era of great political and economic turmoil. From this point of view my dissertation is a microhistorical account on the life and work of an acknowledged scientist struggling to be heard and make societal effects without taking political risks in the United Kingdom between 1933 and 1948.

3. New Findings

In my dissertation I argue that:

1. Polanyi was doing internal boundary work (Gieryn, 1983) against both "extreme liberalism" and "socialist planning" and for a reformed liberalism with social consciousness as "the third way". That is, he intended to convince the general public by using rhetorics both to expand and monopolize authority and expertise of putting an end to the economic downturn without taking unnecessary collateral damage on freedom.

When Polanyi started to turn to economics at the beginning of the 1930s, he realized that economic liberalism was facing both internal tensions (e.g. Keynes-Hayek debate) and external threats (e.g. Socialism,
Despite being a physical chemist at the University of Manchester at this time (1933-1948), he became increasingly interested and involved in how to save a kind of economic liberalism and how to oppose its rivals.

On the one hand, he aimed to heighten the contrast between "extreme" (Polanyi, 1940a, p. 24.), "crude" (ibid), "orthodox" (ibid, p. 26.) liberalism and the kind of Keynesian economic liberalism he proposed. On the other hand, he sought to heighten the contrast between "economical collectivism" (Polanyi, undated2, p. 1.), "planned economy" (ibid, p. 6.), socialist "economic planning" (Polanyi, 1947, p. 4.), "the socialist teachings" (Polanyi, undated, p. 2.) and the stream he developed. With his popular writings, he wanted to convince the general public ("the common layman"), not the expert communities of economists about the adequacy of his Keynesian "third way", and that it is the only way to save liberalism, and our society in a democratic framework avoiding the "mistakes" (Polanyi, 1937b, p. 4.), "weaknesses" (ibid, p. 6.), "inabilities" (ibid), and "fallacies" (Polanyi, undated, p. 2.) of both laissez-faire liberalism and economic collectivism.

2. By viewing Polanyi’s film, Unemployment and Money: The Principles Involved (1940b) as a boundary object (Star - Griesemer, 1989) it can be shown how the film acted as a "bridge" or "anchor" connecting the social worlds of economists, economics tutors, film experts and managers.

For his mission to save economic liberalism by raising the social consciousness of individuals, communities and the whole society, Polanyi needed new methods to reach out to a wider public. His economic film titled Unemployment and Money (1940b) might be seen as one of these methods. By discovering how economists, economics tutors, film experts, managers of the Rockefeller Foundation and others saw the Polanyi film different a couple of social worlds might be seen unpacking. Economists were mainly concerned with the economic content of the film and warned Polanyi about the "danger of oversimplification" [Polanyi, 1938c, p. 3.] of complex economic discourses. Film experts primarily saw it from a
"technical point of view" (Polanyi, 1938b, p. 1.), as an instance of using film technology. Techniques of making the film (not photographed distinctly; jerky movement of model figures) and the mode of storytelling (slowness; repetition; visual notation; complicated yet lucid climax) dominated their accounts. Managers at the Rockefeller Foundation seemed to be engaged in the development and the dissemination of the film as one of their ongoing projects, connecting as many stakeholders as they could. Some of the economics tutors saw the film as a threat to both their freedom and their competence (pre-made argument; forced silence if sound copy was used), and thought that the subject is of a controversial character (Polanyi, 1943a, p. 1.) without an agreement among economists and therefore inadequate for such degree of standardisation.

3. The language of Polanyi's Full Employment and Free Trade (1945b) mirrored Polanyi's experience as a laboratory chemist with terms like "sucking pump" and "squirting pump" otherwise unknown to Keynesian economics.

The language analysis of Polanyi's Full Employment and Free Trade (1945b) suggests that he wrote a Keynesian popularizer book in the language of a laboratory chemist. More than forty terms might be found in his economic magnum opus mirroring his physico-chemical experience. These are addressed in details in the first chapter of my dissertation.

4. Visualizing and saving a kind of liberal economics was connected in the sociotechnical visioning of Michael Polanyi in the 1930-40s (4/a.). It could be shown how Polanyi's sociotechnical vision of "democracy by enlightenment through the film" failed both to save this kind of liberalism and to become an extended sociotechnical imaginary in the Jasanoffian sense due to the lack of institutional stabilization (4/b.).

Polanyi cultivated a sociotechnical vision based on his economic film which he summarized in a letter of 1935 as "democracy by enlightenment through the film" (Polanyi 1935, p. 1.). He aimed to foster the establishment of centres of economics education (using his film) from which "a calm light would spread out" (Polanyi, 1936, p. 4.), and if the "society would devote
itself to the study of economics" (Polanyi 1937b, p. 13.) raise the social consciousness saving liberalism and our society. After the outbreak of World War II Polanyi thought his film could "facilitate the education of an enlightened post-war opinion" (Polanyi, 1942a, p. 3.) too which would not approach problems in the spirit of despair threatening with the destabilization of free institutions, but looking for concrete, intelligent steps (4/a.).

Polanyi made multiple attempts to embed his sociotechnical vision in a couple of communities (economists, economics tutors, Workers' Educational Association, etc.), but faced with obstacles impeding the extension of his vision to a sociotechnical imaginary. His attempts to make Keynes see him as his Cannizaro, that is, someone who "set out the whole matter [Keynesian economics] once again - without any important addition - in a new, more straightforward fashion" (Polanyi 1948, p. v.) failed to attract the attention of the genius of Cambridge. Similarly, Polanyi's sociotechnical vision failed to become institutionally stabilized in the American Film Centre and in the Army program, Film Division of the Ministry of Information. While in these instances it was primarily the disinterestedness in the film or in the related vision (or both) that prevented the implementation into the institutional settings, the resistance of economics tutors experimenting with the film for the Workers' Educational Association included another reason. The film was a perceived threat to their expertise and autonomy (pre-made argument and sound curtailing their opportunities to verbally express what and how they want). The opinion of Harold Shearman, a manager of the Association was that "generally speaking our tutors, and the profession in general in this country has not yet become interested in visual aids to any important extent" (Polanyi 1945a, p. 1.), which could explain why the Polanyian vision did not become extended through the W.E.A. after the first experiments (4/b.).

5. Polanyi's visualization of economic matters had certain elements in common with Angell's, Mooney's and Neurath's methods (cartoonish style, fluid-like motions), but he essentially developed a
Polanyi was not the only one developing visual physical analogies of economic laws in the 1930-40s. He knew about at least three similar projects (Angell's, Mooney's, Neurath's) with which his method had similarities as well as differences. The cartoonish style of representing economic phenomena was a common aspect in all of the four methods. Drawing of a parallel between motions of fluids and economic mechanisms was integral to Polanyi's film and Mooney's apparatus of illustrating economic laws. The relation between the quantity of the (re)presented thing and the size of its representation was a commonality in the Polanyian and Neurathian methods, with the difference that Polanyi, unlike Neurath, did not prefer "amount pictures" (Neurath, 1936, p. 30.) or "number-fact pictures" (ibid) multiplying the (re)presenting symbol. Instead Polanyi rather increased or decreased the size of the symbol (e.g. increased or decreased volume or bulk of the stream (re)presenting savings, spending, etc.) to show a change in certain aspects of the (re)presented.

The uniqueness of the Polanyi method can be grasped in two connected aspects of his visual presentation of economic matters: shifting symbols and multi-level learner-center unfolding of visual argument. Using different (re)presentations for the same (re)presented thing, or with other words, a multiplicity of symbols for one thing, was not present in Angell's and Mooney's representation, and was explicitly forbidden in the Neurath method. Polanyi developed a method which taught a kind of visual fluency by gradually replacing cartoonish and common representations (based on visual similarity between the (re)presentation and the (re)presented) with abstract ones (based on a recently learned relation between the (re)presentation and the (re)presented) to help his viewers understand the learning material. The replacement of the symbols was not showed simply by stopping the use of one and starting to use another, but by a process of revisualization, a liquid-like shifting of the first symbol into the other before the eye of the viewer, usually with an attached sound explanation.
6. Polanyi made attempts to develop his economic thought to be seen more as economic theory and less as economic policy in the 1940s in order to be able to make societal effects without personally taking political risks.

Polanyi's boundary activities and sociotechnical visioning were embedded in a tense political-ideological milieu. He thought that the outbreak of World War II and the growing influence of the Fascist and Socialist ideologies aroused suspicion about foreigners, even in the United Kingdom. He wrote to one of his friends in 1942 that "I must be very careful not to appear to intervene in public affairs. During a crisis of this kind the nation's family feelings are stronger than ever and they are anxious to listen undisturbed to the voice of their own tradition" (Polanyi, 1942b, p. 2.). In another letter, Polanyi constructed a dichotomy of thought and action, extensively described what he meant by both and how he thought these were likely perceived by the English:

"No contributions to thought are resented by our English friends, however widely they may roam; but I think our friends would resent any contributions by us to public action, unless these are demanded by strict professional responsibility. Thus I think any serious intellectual effort, however far-reaching its practical implications, even though touching upon the most decisive questions of international or economic life, would be well received; but a comparatively small active participation in public life, as by opposing the government of the day, or the Regional Commissioner, or even the Vice Chancellor, would probably be felt as an intrusion" (Polanyi, 1942c, pp. 1-2.).

Polanyi even underlined the two words (i.e., thought and action) to sign their significance. His sociotechnical vision of "democracy by enlightenment through the film" (Polanyi 1935, p. 1.), and his plan to establish a "nucleus of educated people" (Polanyi 1937b, p. 13.) in centres of economics education from which a large-scale social change might be launched to save liberalism and the society suggests that his ideas might also have been phrased as interrelated public policy proposals. Thus, Polanyi had the
chance to influence how others perceive his economics but he restrained himself to the abstract field of “thought” in order to be able to make societal effects without taking personal political risks.

4. Publications related to thesis findings


5. Further (selected) publications


6. References


Polanyi, M. (1935) A letter of 13th December 1935 from Michael Polanyi to John Grierson, Michael Polanyi Papers, Box 3, Folder 5, Special Collections, University of Chicago Library.
____, (1936) Notes on a Film. Michael Polanyi Papers, Box 25, Folder 10, Special Collections, University of Chicago Library.

____, (1937a) Visual Presentation of Social Matters, Michael Polanyi Papers, Box 25, Folder 9, Special Collections, University of Chicago Library.

____, (1937b) On Popular Education in Economics, Michael Polanyi Papers, Box 25, Folder 9, Special Collections, University of Chicago Library.

____, (1938a) A letter of 17th March 1938 from Ervin Gomperz to Michael Polanyi, Michael Polanyi Papers, Box 3, Folder 11, Special Collections, University of Chicago Library.

____, (1938b) A letter of 4th August 1938 from R. S. Lambert (The British Film Institute) to Michael Polanyi, Michael Polanyi Papers, Box 3, Folder 12, Special Collections, University of Chicago Library.

____, [1938c] Memorandum on Economic Films. Michael Polanyi Papers, Box 3, Folder 6, Special Collections, University of Chicago Library.

____, (1940a) Collectivist Planning, Michael Polanyi Papers, Box 26, Folder 3, Special Collections, University of Chicago Library.

____, (1940b) Unemployment and Money: The Principles Involved, G.B. Instructional Ltd.

____, (1942a) A letter of 12th January 1942 from Michael Polanyi to Tracy B. Kittredge (Rockefeller Foundation), Michael Polanyi Papers, Box 4, Folder 8, Special Collections, University of Chicago Library.

____, (1942b), A letter of 6th May 1942 from Michael Polanyi to Toni Stolper, Michael Polanyi Papers, Box 4, Folder 8, Special Collections, University of Chicago Library.

____, (1942c), A letter of 9th July 1942 from Michael Polanyi to Max Born, Michael Polanyi Papers, Box 4, Folder 8, Special Collections, University of Chicago Library.

____, (1943) A letter of 13th February 1943 from G.D.H. Cole to Harold Shearman, Michael Polanyi Papers, Box 4, Folder 9, Special Collections, University of Chicago Library.
____, (1945a) A letter of 19th March 1945 from Shearman to Michael Polanyi, Michael Polanyi Papers, Box 4, Folder 12, Special Collections, University of Chicago Library.


____, (1947) British Crisis, Michael Polanyi Papers, Box 31, Folder 3, Special Collections, University of Chicago Library.


____, (undated) The New Outlook, Michael Polanyi Papers, Box 28, Folder 2, Special Collections, University of Chicago Library.

____, (undated2) The Limits of State Power, Michael Polanyi Papers, Box 28, Folder 2, Special Collections, University of Chicago Library.