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Changing Society by Scientific Investigations? The Unexpected Shared Ground Between Early Sociology of Knowledge and the Vienna Circle

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Abstract In this paper, I show that there are important but hitherto unnoticed similarities between key figures of the Vienna Circle and early defenders of sociology of knowledge. The similarities regard their stance on potential implications of the study of science for political and societal issues. I argue that notably Otto Neurath and Karl Mannheim are concerned with proposing a genuine political philosophy of science that is remarkably different from today's emerging interest in the relation between science and society in philosophy of science.

Keywords Vienna Circle · Neurath · Mannheim · Political philosophy of science · Sociology of knowledge

It is no exaggeration to claim that recent philosophy of science in—what can be called—analytic tradition has seen the advent of reflection on the place of science in society and the social dimensions of science.[1] The focus is on questions like: how can a democratic society control science without impeding with the idea of freedom of research (see Kitcher 2001, 2011)? How can, on the other hand, freedom of research be secured in the face of the fact that scientific research is increasingly funded by sponsors with economic interest? What is the role of expertise in policy-relevant scientific fields for political decision making and can science be value-free especially in these fields (see Douglas 2009)? How far is scientific dissent productive in view of the fact that it is not always a natural consequence of research

[1] Of course, the regained reflection on the relation between science and society/politics is mainly due to the pioneer work of Paul Feyerabend and also to discussions in the sociology of science in the 1970s; feminist philosophy of science needs to be mentioned in this context, too (Harding 1991; Longino 1990).
These developments led to much debatte and polemics from philosophy of science in the analytical tradition that focused on the questions of relativism and constructivism. Importantly, the more recent developments in analytical philosophy—and Philip Kitcher can serve as witness here—see a reevaluation of the issue from authors from a distinguished realist and anti-relativist point of view.

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but produced by those with specific political and economic interests (see Oreskes and Conway 2010)?

Interestingly, these questions have historically not been in focus within the field of philosophy of science. It would however be wholly wrong to think that early philosophy of science did not reflect on the relation between science and society/politics. On the contrary, especially thinkers of the Vienna Circle always saw the impact of their program also on political and societal issues—philosophy of science was not always apolitical but has been depoliticized.[2] However, the focal point of the questions pursued in early politically relevant philosophy of science is quite different from that in recent discussions: the idea of these thinkers has been to change and democratize society by proposing a scientific world conception. Thus, it is undifferentiated to speak of a repolitication of philosophy of science (see e.g. Leuschner 2012): whereas early philosophy of science can justifiably be called 'political philosophy of science' in aiming to provide a conception of how to intervene in public debate and political processes, the more recent turn to discuss the relation between science and society/politics in philosophy of science does not consist in assuming that philosophy of science is *itself* political—the focus here is on the connections and potential tensions between politics and science. Therefore, the more recent discussion of the social dimensions of science (see Longino 2006) is quite different from political philosophy of science in the twenties and thirties.

I am going to argue that a genuine *political* focus on the relation between science and society was not special to the members of the Vienna Circle—in fact, with respect to this they unexpectedly share common ground with one figure vigorously attacked by them: namely, the founding-father of sociology of knowledge Karl Mannheim. Thus, I claim what connects these admittedly quite disparate authors—and distinguishes them from recent discussion of the relations between science and society in the analytical camp—was to see science and the meta-theoretical study of science to be *itself* political. By showing the connections in the case of Mannheim and the Vienna Circle I aim to sustain my thesis that reflection on the relation between science and society in the twenties and thirties is only remotely comparable to more recent discussions of the issue.[3]

1 Political Philosophy of Science and the Vienna Circle

Recent research on the history of the Vienna Circle has established a more comprehensive picture of its members especially as regards their relation to questions of politics.[4] It is not necessary to discuss the political and also philosophical differences between all members of the Vienna Circle—between 'the left wing' and 'the more conservative right wing' as Rudolf Carnap himself has claimed (Carnap 1963, 57); it is sufficient to note that Rudolf Carnap, Hans Hahn and Otto Neurath were quite sympathetic to social-democratic and, in part, socialist ideas.[5] The idea of these members of the Vienna Circle to argue that precisely a scientific world conception devoid of metaphysical and theological content provides the means to an enlightened social policy is quite obvious in their manifesto *The Scientific Conception of the*

[2] See especially Reisch (2005) for the historical background.

[3] A notable exemption is Howard (2009).

[4] See especially Uebel (2005, 2009, 2010) and the papers in Heidelberger and Stadler (2003). A good overview is provided by Reisch (2005, chapter 2). The issue of a genuine political philosophy of the Vienna Circle is still debated (see Richardson 2009a, b).

[5] See e.g. Carnap (1963, 23). As testified by a message from Carnap to Marie Neurath, Carnap's political views in the twenties and thirties were identical with Neurath's (see Neurath 1973a, xiii).

World: The Vienna Circle.[6] Most interestingly, the authors of the manifesto argue that the contrast between a metaphysical/theological and a scientific world-conception has its roots in social and economic struggles: "one group of combatants, holding fast to traditional social forms, cultivates traditional attitudes of metaphysics and theology whose content has long been superseded; while the other group, especially in central Europe, faces modern times, rejects these views and takes its stand on the ground of empirical science" (Carnap et al. 1973, 317). Carnap, Hahn and Neurath believe in a development towards the latter view since "the masses […] along with their socialist attitude lean towards a down-to-earth empiricist view." (ibid.). The spirit of the scientific world-conception, so their optimistic judgment, already penetrates many forms of public life.[7]

Undoubtedly, these claims must be understood in the context of the quite specific situation in Vienna and also in late Weimar Germany at the end of the twenties and beginning thirties. Obviously, the quite optimistic view of the Vienna Circle stems from the social reforms in so-called 'Red Vienna' which are also mentioned in the manifesto.[8] However, it is also obvious that the political climate was full of tension between right-wing and left-wing groups. In 1927 the political clash of the right-wing *Frontkämpfervereinigung* and the left-wing *Republikanischer Schutzbund* became more and more obvious in Austria. After right-wing veterans killed two people in Schattendorf but had been acquitted in a jury trial left-wing protesters set the palace of justice on fire in Vienna. The protests were suppressed with massive force by the police resulting in 89 deaths. These incidents surely are an expression of the more than embittered political climate which was prevalent at the dawn of the first republic of Austria. The manifesto of the Vienna Circle stems from a time in which the political optimism of social-democratic policy making in Red Vienna encounters deep political struggles and opposition. These political struggles are, of course, not restricted to Austria—on the contrary, it is no exaggeration to claim that whole Europe saw drawn battle lines between left- and right-wing.

It is in this historical and political situation that also Mannheim's influential contributions to the sociology of knowledge are published. In the following I will show that Mannheim's work can also be seen in the context of the struggles of his time and—most importantly—his proposal for means to end the struggles also involve the invocation of a more thoroughgoing *scientific* treatment of world-views.

2 Neurath's Criticism of Mannheim

The best way to see whether there might be any connection between the political philosophy of science of the Vienna Circle and Mannheim's contribution is to have a look at the only

[6] See e.g. Carnap et al. (1973, 301f.): "[…] endeavors toward a new organization of economic and social relations, toward the unification of mankind, toward a reform of school and education, all show an inner link with the scientific world-conception […]." and "The vitality that shows itself in the efforts for a rational transformation of the social and economic order, permeates the movement for a scientific world-conception too." See also the remarks on 304f.
I am quoting here from the reprinted, translated version from 1973. A very helpful edition is also the edition by Friedrich Stadler and Thomas Uebel that includes translations in four languages (see Stadler and Uebel 2012).

[7] See Carnap et al. (1973, 317).

[8] See Carnap et al. (1973, 301f. and 305). See on the Vienna Circle and Red Vienna: Hacohen (1998).

direct connection: Neurath's critical review of Mannheim's *Ideologie und Utopie* called *Bürgerlicher Marxismus* (Bourgeois Marxism) from 1930.[9]

The focus of Neurath's criticism is Mannheim's notion of synthesis. Neurath attacks Mannheim in maintaining that what is not at issue is the identification of a higher standpoint that rises above all particular views by somehow integrating them in a synthesis but to find out which of the different views is more scientific.[10] Neurath ridicules Mannheim's picture by comparing it to a situation in which different people argue about the correct result of a simple multiplication: "It is as if one thinks that 2 times 2 equals 7 since it is what the orbits say, the other that 2 times 2 equals 5 since this is God's decree, the third that 2 times 2 equals 8 since this corresponds to the cosmic view, whereas the scientist maintains that 2 times 2 equals 4. And now there is the one who synthesizes all four 'one-sided' viewpoints or takes the average viewpoint that consists in the claim that 2 times 2 equals 6" (Neurath 1981, 352).[11]

At this point, Neurath emphasizes that he does not reject Mannheim's considerations with respect to the social determination of ways of thinking in general. He argues against Mannheim that Mannheim's own work provides an example of the social determination of the bourgeois and the proletarian way of thinking: "Herein lies the sociological determination of the bourgeois and the proletarian way of thinking, that the bourgeois way […] is necessarily ambivalent whereas from a sociological point of view the momentum of unified science is possible just on the side of the proletariat" (Neurath 1981, 352).[12] Though the bourgeois way of thinking is able to integrate scientific and anti-metaphysical thinking there are always and necessarily also metaphysical and theological elements in this way of thinking. As Neurath believes "on the bourgeois side a unified scientific education is impossible; the scientific attitude must be disrupted at many places by national, religious and patriotic propaganda" (Neurath 1981, 353). There is no possibility of a synthesis between the two irreconcilable social classes and ways of thinking of the bourgeoisie and the proletariat: "There is a confrontation between the bourgeois front, which is because of sociological circumstances necessarily ambivalent—half scientific, half unscientific, and the proletarian front, which in their fundamental attitude is thoroughgoing scientific" (Neurath 1981, 353). The reason why, according to Neurath, only the proletarian way of thinking can provide the ground for a thoroughgoing scientific conception of the world is that a scientific sociology enlightens the

[9] Unfortunately, this paper is not yet translated into English. I will provide my translation and refer to the German version.

[10] See Neurath (1981, 351). In effect, Neurath applies an argument already stated by Max Weber in his seminal essay '*Objectivity' in Social Science and Social Policy*: "It can, to be sure, be just as obligatory subjectively for the practical politician, in the individual case, to mediate between antagonistic points of view as to take sides with one of them. But this has nothing whatsoever to do with scientific "objectivity." *Scientifically the "middle course" is not truer even by a hair's breadth,* than the most extreme party ideals of the right or left. Nowhere are the interests of science more poorly served in the long run than in those situations where one refuses to see uncomfortable facts and the realities of life in all their starkness" (Weber 1949, 57f.). See on Weber and Mannheim: Scott (1998).

[11] It should be noted that Neurath's example is quite unfortunate since Mannheim more than once emphasizes that the contents of the natural sciences and mathematics must be exempted from his thesis of existential determination [he even mentions the equation 2 times 2 equals 4 (see Mannheim 1946, 244)]. Therefore, Mannheim could easily protest that in the case of mathematical truths his idea of a synthesis of viewpoints does not apply.
Note, however, that this move would rescue Mannheim's idea only if there is a distinction between the contents of the humanities and the contents of the natural sciences and mathematics *in principle*. Mannheim, however, denies that there is such a difference *in principle* (see Seidel 2011a).

[12] See also Neurath (1973b, 297): "It is precisely the proletariat that is the bearer of science without metaphysics".

workers, employees and peasants about their class situation. Therefore, Neurath argues, the bourgeoisie cannot wholly accept a scientific world conception since such a scientific conception has an enlightening function. Neurath believes that "if a scientific sociology, which is marxism today, shows how nationalism, patriotism, religion and much more is time- and class-dependent, thereby these are already dissolved as higher authorities" (Neurath 1981, 353). Mannheim's work and his ideal of a neutral standpoint, so Neurath maintains, is an expression of a bourgeois integration of marxist thought: the bourgeois ignorance of the difference between scientific and metaphysical worldviews combined with the thought of the social determination of all thinking provides the ground to propose a remedy in a higher neutral standpoint that integrates the different viewpoints.[13]

According to Neurath, Mannheim's "bourgeois-metaphysical position" (Neurath 1981, 355) can also be seen in his choice of words: instead of clearly denominating social conditions and their effects Mannheim uses a "metaphysical-soulful language which with its cambered collocations and floating meanings is common in German sociology" (Neurath 1981, 349) and a metaphorical language "which we are accustomed to from Scheler, Heidegger and many others" (Neurath 1981, 355). Neurath's reproach is that Mannheim's sociological approach with its bourgeois background obfuscates the enlightening project of the scientific conception of the world—both by treating all viewpoints as equivalent and amenable to synthesis and by his choice of words.

3 Mannheim on the Neutralization of Viewpoints by Scientific Investigations

Neurath's reproach is severe and it seems as if there is—contrary to what the title of this paper suggests—no shared ground of the main proponent of early sociology of knowledge and the members of the Vienna Circle with respect to the political relevance of science. Mannheim, so Neurath believes, is still bound to bourgeois thinking though he integrates scientific, marxist thought. Nevertheless, for Neurath the consequence is clear: Mannheim's view is metaphysical and anti-scientific.[14]

In what follows I want to argue that once we understand Mannheim's notion of a synthesis of viewpoints not as a kind of average-view but as the supposed outcome of a disinterested and impartial sociological investigation we can see how also Mannheim's motivation is to change society by scientifically investigating it. Therefore, the real struggle between Mannheim and Neurath is whether science itself is impartial—not whether a scientific attitude and scientific investigations are important for political issues. Note that in this respect, Mannheim's view is more like Carnap's: „In our view, logic, including applied logic, and the theory of knowledge, the analysis of language and the methodology of science, are, *like science itself,* neutral with respect to practical aims, whether they are moral aims for the individual, or political aims for a society. Neurath criticized strongly this neutralist attitude […]" (Carnap 1963, 23, my italics).[15] Mannheim's idea of a synthesis and his notion of free-floating intellectuals does not stand in opposition to the scientific conception of the world of the Vienna Circle, but itself should be understood as an expression of a disinterested, impartial and—in Mannheim's view—scientific methodology for the sociological investigation of viewpoints.

[13] See Neurath (1981, 353).

[14] See Neurath (1981, 356).

[15] As Reisch has argued, Carnap's claim to neutrality of philosophy and science does not imply that the insights of the latter have no political consequences: "Though logic and philosophy of science may remain independent of politics in Carnap's project, politics is not independent of logic and philosophy of science" (Reisch 2005, 50f.). To my mind the same can be said with respect to Mannheim.

In order to sustain my thesis, I will try to reconstruct Mannheim's conception of a "scientific theory of knowledge" (Mannheim 1946, 274) by a close look on his writings on the sociology of knowledge—my primary focus, however, will be on Mannheim's handbook article *Sociology of Knowledge* that he wrote in 1931 for the *Handbook of Sociology* and that can be seen as Mannheim's legacy to the field.[16] This article was included by Louis Wirth and Edward Shils in their English translation of *Ideology and Utopia* as additional chapter V and since then has also been appended to the German edition.[17]

Mannheim sets up the thesis of "the constitutive 'existential relatedness' of certain types of knowledge" (Mannheim 1946, 269, improved translation).[18] If epistemology recognizes this existential relatedness, the question arises which way epistemology can go. Mannheim thinks that there are two possible directions in epistemology: according to the first way, the social relatedness of knowledge is *ineradicable* and therefore the standpoint of the sociologist of knowledge is *itself* socially determined and particular—no matter what he is going to find out about the social relatedness. "One of the two directions taken by epistemology emphasizes the prevalence of existential relatedness (Seinsverbundenheit), maintaining that in the course of the progress of social knowledge this element is ineradicable, and that, therefore, even one's own point of view may always be expected to be particular and existentially determined." (Mannheim 1946, 269, improved translation).[19] In this way, it is *not possible to transcend* one's own point of view. According to the second way, the sociology of knowledge can by the very discovery of the 'existential relatedness' (Seinsverbundenheit) of the examined views take a first step to *detach* the views from 'existential determination' (Seinsgebundenheit): "The theory of knowledge can also pursue a second course by emphasizing the following facts: The impetus of research in the sociology of knowledge may be so guided that it will not absolutize the 'existential relatedness' (Seinsverbundenheit); rather that precisely by the discovery of the existential *relatedness* (Seins*verbundenheit*) of the views at hand, a first step will be taken towards detaching from the existential *determination* (Seins*gebundenheit*)" (Mannheim 1946, 271, improved translation). Thus, the execution of research in sociology and their results can help to neutralize the existential determination and soar/rise above it,[20] and in this sense, it is *possible to transcend* one's own point of view. It is at this point that Mannheim's notions of synthesis and of free-floating intellectuals come into play: the

[16] See Endress (2011, 161).

[17] For obvious reasons Neurath's criticism of *Ideology and Utopia* from 1930 does not refer to this article. Nevertheless, I focus on this article because the purpose of my paper is not to assess the adequacy and cogency of Neurath's criticism but to show via the example of Mannheim that around 1930 the idea that a *scientific* investigation of worldviews and a scientific conception of the world can have political and social consequences was prevalent among many intellectuals in German speaking Europe.

[18] Some notes on the translation of Mannheim's German works into English: I consider them as mostly inadequate. Just to give one of the most obvious examples: the translation of Mannheim's essay *Historismus* (Mannheim 1952a) completely omits five pages of the original (on page 176)!
However, it has to be noticed that Mannheim himself changed the English translation of *Ideologie und Utopie* remarkably, because he wanted to adjust the text to the 'way of thought of the American-English reader' and was afraid that a more literal translation will not be understood properly by the English reader (see his letters to Louis Wirth from June 18th, 1935, December 24th, 1935, February 15th, 1936, March 23rd, 1936 and June 12th, 1936; all reprinted in Gabor 2003). Notwithstanding this fact, I deliberately also changed the translation of *Ideologie und Utopie*, since I take it to be very misleading. Just take Mannheim's discussion on page 271, where Mannheim distinguishes between *Seinsverbundenheit* and *Seinsgebundenheit* in the German original by claiming that by discovering *Seinsverbundenheit* we make a first step to solve *Seinsgebundenheit.* In the English translation *Seinverbundenheit* and *Seinsgebundenheit* are both translated as 'situational determination' such that the claim sounds like bootstrapping.

[19] The translation of 'Seins*ver*bundenheit' as 'existential relatedness' follows the use of Simonds (1978, 27).

[20] See Mannheim (1946, 271): "the neutralization of existential determination by attempting to rise above it".

idea is that by a scientific, sociological investigation of world-views and the analysis of the social relatedness of world-views a more abstract view of the world-views becomes possible. According to Mannheim, such a sociological project consists of two stages: "In its first stage, this tendency neutralizes the various conflicting points of view (i.e. deprives them of their absolute character); in its second stage, it creates out of this neutralization a more comprehensive and serviceable basis of vision [which] is bound up with a higher degree of abstractness" (Mannheim 1946, 271).

Note that there is a sense in which Mannheim's idea of neutralization by sociologically investigating all points of view is remarkably similar to Neurath's view: according to Neurath, scientific (i.e. for Neurath marxist) sociology has an enlightening function since it shows how political and ideological views that set themselves as absolute are time- and class-dependent.[21] Mannheim's idea seems to be the same: by recognizing the social conditions of world-views in a scientific investigation and raise them to consciousness the world-views are already—as Neurath would say—"dissolved as higher authorities" (Neurath 1981, 353). Mannheim believes that "[as] soon as I add the given angle of vision to a view which sets itself as absolute, I neutralize its partial vision in a sense" (Mannheim 1946, 271, improved translation). Therefore, Mannheim claims that "[whenever] we reflexively become aware of determinants that dominated us, we remove it from the realm of unconscious motivations into that of the controllable, calculable, and objectified" (Mannheim 1946, 169, improved translation). Mannheim believes in a kind of neutralization of the existential determination which can come about in "processes of group contact and interpenetration" (Mannheim 1946, 271) that deprive the existentially determined views of their absolute character.[22] The idea behind this thought is the following: surely I can be mistaken in taking my view as absolute and talking to or interacting with other people with conflicting views can help me to overcome my mistaken view and correct it. Mannheim tries to illustrate this thought by the example of the 'urbanized peasant boy': "For the son of a peasant who has grown up within narrow confines of his village and spends his whole life in the place of his birth, the mode of thinking and speaking characteristic of that village is something that he takes entirely for granted. But for the country lad who goes to the city and adapts himself gradually to city life, the rural mode of living and thinking ceases to be something to be taken for granted. He has won a certain detachment from it, and he distinguishes now, perhaps quite consciously, between 'rural' and 'urban' modes of thought and ideas. In this distinction lie the first beginnings of that approach which the sociology of knowledge seeks to develop in full detail. That which within a given group is accepted as absolute appears to the outsider conditioned by the group situation and recognized as partial (in this case, as 'rural'). This type of knowledge presupposes a more detached perspective" (Mannheim 1946, 252f.). The quote makes clear that for Mannheim it is especially the approach and methods of research in the sociology of knowledge that can help to neutralize the existential determination. The difference between the peasant boy and the sociology of knowledge is, as Mannheim notes, that the latter uses precise and scientific methods.[23] According to Mannheim, the insights of the sociologist of knowledge in the partiality of standpoints are supposed to help transcending the partiality: "[T]he old antagonisms, however, become less sharp, and it will be possible to find a viewpoint farther back, from which the hitherto partial aspects can be seen through in their partiality, and thus at the same time to a large extent be transcended. (It seems, by the way, that the sociology of knowledge itself provides just such a viewpoint farther back

[21] See Neurath (1981, 353).

[22] See Mannheim (1946, 271).

[23] See Mannheim (1971, 266).

from which theoretical philosophical differences which cannot be reconciled on the level of manifest content, can be seen through in all their partiality and therewith made amenable to a synthesis)" (Mannheim 1952b, 224, improved translation).

We have seen that it is this notion of a synthesis that is the focus of Neurath's criticism. Neurath believes that we should not aim for 'a viewpoint farther back', a detached viewpoint of free-floating intellectuals by integrating all different and partial views; we should clearly adopt a *scientific* viewpoint from which we can investigate the social conditions of all viewpoints and this, so Neurath claims, is the point of view of marxist sociology. Mannheim, on the contrary, appears to propose a standpoint of an intellectual elite without party liaisons.[24] He thinks that "it is expected of such a dynamic middle group that it will strive to create a forum outside the party schools in which the perspective of and the interest of the whole is safeguarded" (Mannheim 1946, 144). Mannheim even speaks of the 'mission' of the free-floating intellectuals to be the predestined advocates of the interests of the whole,[25] such that the free-floating intellectuals "might play the part of watchmen in what otherwise would be a pitch-black night" (Mannheim 1946, 143).[26] How can such a defence of an intellectual elite that is politically neutral be combined with the idea of Neurath that only a marxist sociology can be scientific?

First of all, it must be noticed that Mannheim's idea of the free-floating intellectuals does not imply that these stand *above* all classes—his idea is that the free-floating intellectuals are an aggregation *between* them. Thus, Mannheim claims that he never thought of the free-floating intellectuals as "an entirely unattached group free of class liaisons" (Mannheim 1956a, 106) but that his "claim was merely that certain types of intellectuals have a maximum opportunity to test and employ the socially available vistas and to experience their inconsistencies" (Mannheim 1956a, 106). In effect, the reason why the free-floating intellectuals are supposed to have this maximum opportunity is not that they are not bound by their classes but that they have a more abstract and, for Mannheim, more *scientific* outlook. What constitutes the group of free-floating intellectuals is not so much their special social position but the way they discuss and investigate matters:[27] Mannheim believes that within the group of free-floating intellectuals there must be a 'genuine discussion' in which "no argument from authority and no dogmatic assertion based upon mere intuition is admitted" (Mannheim 1956b, 192)[28] and "all participants are equally and jointly responsible for the conclusion reached. This equal distribution of *responsibility* is one of the characteristics of democratic society." (Mannheim 1956b, 194). Mannheim's argument can be summarized thus: the free-floating intellectuals have a maximum opportunity to detect the social conditions of world-views. This is not because they strip of their social ties but because they pursue a specific method and have an attitude which can justifiably be called 'scientific': the attitude of the free-floating intellectuals is disinterested and neutral and the method they employ consists in investigating world-views in an open, deliberative discourse.[29] This attitude and method has a double effect on political issues: firstly it is itself an attitude that

[24] See on Mannheim's supposed elitism Loader (1985, 173).

[25] See Mannheim (1946, 140, 142).

[26] See for the background of this metaphor Kettler et al. (1984, 54).

[27] Mannheim explicitly claims that it is not so much their social middle position but their "experimental outlook" and their attitude (*Haltung*) that defines the free-floating intellectuals (see Mannheim 1946, 134).

[28] Note that also in the manifesto of the Vienna Circle reference to intuitions as a superior way of knowing is denied. Carnap, Hahn and Neurath do not reject intuition as such but demand that intuitive knowledge must be tested scientifically (see Carnap et al. 1973, 308f.).

[29] Some authors, in my view quite correctly, see in Mannheim's notion of free-floating intellectuals remarkable similarities to Habermas' idea of the 'ideal speech situation' (see e.g. Baum 1977, 65f., Scott 1998, 117).

is characteristic of a democratic society. And secondly, this scientific attitude and method leads to enlightenment about the social conditions of world-views which see themselves as absolute.

Secondly, we can understand Mannheim's idea of a synthesis of viewpoints better from this perspective on the free-floating intellectuals. For Neurath, the idea of a synthesis of viewpoints is unacceptable since it seems to imply that science and metaphysics are treated on a par and that Mannheim's proposal consists in finding a middle-way between all views without taking their truth and validity into account. On my interpretation, however, there is a possibility to understand Mannheim's notion of a synthesis not as to cover the differences between scientific and unscientific claims and views but to be itself the outcome of a genuine *scientific* process and discussion. The mediation between the politically distant position is not supposed to lie necessarily in the middle. As Mannheim claims—in obvious contrast to Neurath's reproach—"[a] true synthesis is not an arithmetic average of all the diverse aspirations of the existing groups in society" (Mannheim 1946, 137).[30] The reason why a true synthesis is not the same as an arithmetic average is that the result of a genuine discussion—quite in accord with a scientific attitude—cannot be known at the outset but just after a scientific investigation took place. Mannheim's notion of a synthesis should be understood to denote the outcome of such a discussion *whatever it is* if the discussion follows a neutral, open-minded and—in Mannheim's view—*scientific* method.

Whether or not this interpretation can finally rescue Mannheim's position from Neurath's severe criticism cannot conclusively be answered. Nevertheless, my discussion has shown that Mannheim's notions of free-floating intellectuals and of the synthesis of viewpoints should not be treated as anti-scientific and metaphysical, for Neurath 'bourgeois', impurities in a scientific, for Neurath 'marxist', sociological outlook. These notions can be understood as being itself expressions of a scientific attitude that is demanded in order to solve political and societal problems. In this sense, Neurath and Mannheim unexpectedly share common ground because both seek to change society by *scientifically* investigating it.

4 Changing Society by Scientifically Investigating Society Versus Investigating the Relations Between Science and Society

The contrast between the Vienna Circle and Mannheim should not be marginalized—there are non-negligible differences. Most obviously, the intellectual background of, on the one hand, Carnap, Hahn and Neurath and, on the other hand, Mannheim was completely distinct. Whereas Mannheim's thinking stems from a historicist tradition invoking figures such as Dilthey, Troeltsch and Scheler, the members of the Vienna Circle are strongly influenced by the way of thinking in the natural sciences. As Neurath believes, Mannheim uses a metaphorical language "which we are accustomed to from Scheler, Heidegger and many others" (Neurath 1981, 349). This different background is one of the reasons why philosophical discussion of Mannheim's work, if at all, mainly takes place in the philosophy of the humanities whereas the work of the Vienna Circle is discussed in philosophy of science.[31] Moreover, the most obvious opposition between Neurath and Mannheim still stands out—especially with respect to the 'ideological' background of marxism. Neurath's view of marxism as the only existing

[30] See also Scott (1998, 112).

[31] Nemeth (2007, 279) interprets Neurath's opposition to Mannheim from this perspective: Neurath, she maintains, critizes Mannheim's 'humanist' social theory and aims to defend a modern scientific social theory. This is not to suggest that this is the decisive reason—surely the different topics dealed with by these authors are of major importance in explaining the difference.

scientific sociology that is—in a scientifically respectable way—completely self-aware of its social situatedness[32] is quite opposed to Mannheim's idea to investigate also the "irrational-ideological determinant" (Mannheim 1971, 266) of marxism.

Nevertheless, what can be shown is that both Mannheim and Neurath have a similar view on the role science and especially sociology has to play: both, a scientific attitude and scientific investigations can by uncovering the social ties of supposedly absolute world-views lead to unmasking these views as being no higher authorities. Most importantly, this conviction of Mannheim and Neurath should be seen to be exemplary for a conviction prevalent among important scholars that are still discussed today in quite diverse fields. Just to note one further quite remarkable case: also the early sociologist of science, Ludwik Fleck, sees his *scientific* epistemology[33] as anti-metaphysical[34] and—most importantly—as having potential conflict-solving political consequences. Science, so Fleck believes, is thoroughly democratic.[35]

Let me close with a remark by Carnap about Neurath: "Of particular importance for me personally was his emphasis on the connection between our philosophical activity and the great historical processes going on in the world: Philosophy leads to an improvement in scientific ways of thinking and thereby to a better understanding of all that is going on in the world, both in nature and in society; this understanding in turn serves to improve human life" (Carnap 1963, 23f.). What I wanted to show is that this view of the relation between philosophy and science and of the role of a scientific view of the world for society can be seen to be the driving force behind reflection on science in the twenties and thirties by scholars with remarkably different background such as the members of Vienna Circle and early sociologists of knowledge, notably Mannheim. This view of a genuine *political* philosophy and sociology of science has no real counterpart in much of the more recent discussion of the social dimensions of science: investigating the relations between science and society. Therefore, in a specific sense, the more recent turn in the analytic camp in philosophy of science to investigate these relations cannot be called a *re*politication of philosophy of science—philosophy of science is still *de*politicized if compared with philosophy of science in the twenties and thirties.

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[32] See Neurath (1973b, 297), Neurath (1981, 350).

[33] See e.g. Fleck (1979, 50, 76), Fleck (1990a, 253). The important difference between a *theory* of knowledge and a *science* of knowledge unfortunately gets lost in the translation of Fleck's *Zagadenienie teorii poznawania* (Fleck 1986).

[34] See most obviously Fleck (1990b).

[35] See Seidel (2011b) for discussion.

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