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THE INTELLECTUAL NETWORKS OF OTTO NEURATH: BETWEEN THE COFFEEHOUSE AND ACADEMIA

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> You don't know Otto Neurath, the wittiest man of Vienna? You simply must come with us.
> (Herbert Feigl, quoted in Neider, 1973)

Abstract

The chapter 'The Intellectual Networks of Otto Neurath' examines the intellectual exchanges of Otto Neurath during the interwar period. Otto Neurath, leftist member of the Wiener Kreis, operated in the spaces between coffeehouse and academia. In Vienna these spaces were formal institutions occupied primarily by various informal intellectual circles, rather than institutions. Otto Neurath was an active member and sometimes the driving force behind a wide variety of such social projects, including a modern encyclopedia project, social museums across Europe, housing projects, the Bauhaus and international conferences. He was particularly occupied with the development of a language which would help such cooperation to flourish. To do so he developed the visual language ISOTYPE and was involved in a project to unify the language of science. Such institutions were however highly dependent on particular individuals and vulnerable to personal conflict as the analysis of Otto Neurath's networks demonstrates.

Introduction

Otto Neurath was at the centre of various intellectual networks during the interwar period. He is perhaps most famous for being a member of the Wiener Kreis, but he was also active in architecture, the social housing movement in Vienna and the Unity of Science Movement, a project to establish a universal visual language. The most striking fact about all these activities was that Otto Neurath (1882-1945) never worked at a university for a substantial amount of time before he migrated to the United Kingdom during WWII, just a couple of years before his death. The intellectual networks in which he worked as a social scientist, philosopher and social reformer were often informal and ad hoc connections of intellectuals with similar goals.

This paper aims to explain how Neurath could become central in such various and numerous intellectual projects and networks during the interwar period. To do so I will examine three aspects: Neurath's intellectual as well as his political ideals, the intellectual environment (especially that of interwar Vienna), and the personality of Neurath.

Neurath's intellectual and political ideals often had international and collaborative content. Neurath's attempts to formulate a universal visual language and a universal language in science were efforts to stimulate international dialogue and understanding.

The second aspect I will examine in an attempt to explain the variety and amount of his projects is the intellectual environment in interwar Vienna and Europe in general. Particularly in Vienna, the intellectual conversation did not take place primarily within the university, but instead in the various circles (*Kreisen)* which gathered in private homes, seminar rooms and coffeehouses. The most famous of these, the Wiener Kreis, of which Neurath was a member, was just one among many of such circles which met regularly and which were a breeding ground for an enormous output of intellectual ideas and cross-fertilisation.

Thirdly, I will examine Neurath's personality, which according to his friends and colleagues contributed significantly to his involvement in a variety of projects, many of which he himself initiated. He was full of energy and persistence, and could easily adapt to changing circumstances. This helped him greatly in a time when the political circumstances led Neurath from Vienna to the Balkans, to Bavaria, back to Vienna and then via Moscow and The Hague to England. His outgoing and social nature helped him connect with people wherever he went, and allowed

him to work with many of the leading intellectuals in these European cities. It also makes Neurath stand out amongst his contemporaries, who could not always adjust as easily as he did. Nonetheless I hope that by examining Neurath's various intellectual exchanges in interwar Europe a broader lesson can be drawn about such exchanges: the particular interwar ideals and life in the intellectual realm of that period. The article ends with an outline of some of the limitations to Neurath's various projects, with special focus on what caused him to be forgotten relatively quickly after WWII.

The Vienna Circles

Otto Neurath is most famous for his membership of the Wiener Kreis, which frequently met between 1920 and 1938. This circle around the philosophers Moritz Schlick, Rudolf Carnap and mathematician Hans Hahn tried to construct a non-metaphysical foundation for science and philosophy. They would lay the foundation for much of twentieth century philosophy (of science). Although attention usually goes to their philosophical contribution, one of the other remarkable features of the group of philosophers was that they formed a coherent circle. This circle was originally inspired by Einstein's work in physics and especially by Wittgenstein's early work. The philosophers met regularly in private seminars, although some of its members were also affiliated to the University of Vienna. Neurath, one of the most prominent members of the Circle, had even been part of its predecessor; a circle which had met around 1910 and in which Hans Hahn, Philipp Frank and he himself had started discussing matters of epistemology and philosophy of science. But it was during the Interwar Period that the group grew closer and that they founded the Ernst Mach Verein (1928). This association would also publish their more popular works, amongst it their manifesto.

It was primarily this manifesto '*Die Wissenschaftliche Weltauffassung*' (The Scientific Conception of the World, 1929) which made clear to the outside world that the Wiener Kreis was more than a debating club, or a loose grouping of individual philosophers. In the pamphlet the authors made clear to the world that they had a coherent scientific philosophy and more broadly a scientific outlook on the modern world. Who the actual authors of the pamphlet were is still not precisely clear, but it is known for a fact that Neurath, Carnap and Hahn had a prominent role in drafting the document. In writing of the pamphlet, as in some other

endeavours, they were probably inspired by cultural avant-garde movements. Such avant-garde movements had popularised the form of the pamphlet, starting with the Futurist Manifesto in 1911. The more conservative members responded reservedly to the pamphlet. Some were even completely taken aback when it was published. Schlick, who was visiting America at the time, said that he disliked the promotional tone and dogmatic nature of the manifesto (Mulder 2008, 390). Nevertheless the pamphlet was influential in making the circle known to the outside world, and attracting attention for their philosophical and socio-political program. And it would take long into the twentieth century before attention turned again to the individuals instead of to the circle as a whole.

Neurath was the driving force behind both the pamphlet and the creation of coherence between the members of the circle. Both Neurath's friend Heinrich Neider, and philosopher Karl Popper argue that without Neurath the Wiener Kreis would never have become a collective at all (Popper 1973 and Neider 1973). The manifesto however also caused tensions within the circle. Especially the parts that stressed the wider implications of the 'wissenschaftliche weltauffassung' were not to everyone's liking. The pamphlet called among other things for education of the masses and the adoption of its philosophy not just in science, but in all of life. The tension was especially evident between Moritz Schlick, the politically conservative and most academic philosopher of the circle, and the camp around Neurath. In a sense it was only an extension to previous tensions between Schlick and Neurath. Schlick for example had always refused Neurath into his house. Neurath had grown up in a working-class environment and did little to hide this, to the irritation of Schlick: 'I cannot invite this man; I cannot bear his loud voice' (Schlick quoted in Neider 1973, 48). Neurath was probably somewhat offended by Schlick's refusal to receive him at his house, at the same time Neurath consciously adopted the role of the working-class character within the Wiener Kreis. He often wore a working-man's cap and was known for impersonating the 'aristocratzic' accents of Schlick. The two men were completely opposite characters. Neurath was outgoing, witty and energetic, while Schlick was reserved, formal and quiet.

The different characters reflected two opposite poles of the Wiener Kreis: Neurath was head of what some people have labelled the left wing of the Circle. Schlick was leader of the more conservative and more strictly academic part of the circle. Others on the left-wing included at least Carnap, Waismann and Feigl, who shared their middle-class back-

ground.[1] The relations within the circle were not always those of equals discussing eye to eye. Feigl, later often considered an important member of the circle, had long been Schlick's assistant. It was this left wing of the circle, which more prominently portrayed the Wiener Kreis as a movement.

The Wiener Kreis was not the only active intellectual circle in Vienna. The many circles which met in private homes and cafés in the city provided the space par excellence for intellectual activity in Vienna. In his study of cultural Vienna in the interwar period Edward Timms finds at least twenty of such circles which were in regular contact with other circles, and which often partially overlapped (Timms 2009, 24). There was a fierce competition between these circles for status and attention, which undoubtedly stimulated their creativity and output. The overlapping nature of these circles furthermore stimulated cross-fertilisation between them (see Collins 1998). The question which Timms and other scholars who have written about these circles often neglect however, is why these circles were so prominent in Vienna? They seem to take for granted that intellectual work took place within these circles in Vienna.

However, looking at the situation in Germany or England we find that most intellectual work was already taking place within universities. I believe that this at least partly can be explained by the fact that academic life in Vienna was not very advanced. There were few professors, and the scholars who were associated to the university as *Privatdozent* and were paid per student often had various other jobs. Moreover, the University of Vienna had become a static institution, which due to various restrictions was not open to many of the recent developments. New professors were often appointed by the retiring professors and Jews who played such an important role in Viennese intellectual life were not hired (Craver 1986, 7-8). Vienna had a long tradition in which science was, as Deborah Coen has recently shown, chiefly a private enterprise (Coen 2007). Especially during the interwar period, but from even earlier this system had started to open up. Private libraries, knowledge and wealth were now shared in intellectual circles which covered everything from art, to science and politics.

This 'system' of overlapping circles shaped the Viennese intellectual environment. Often a wide range was praised at least as much as specialisation, and all intellectuals also had to be entrepreneurial; they had to

[1] On Neurath: Neurath 1973; on Carnap: Schilpp 1963; on Feigl: Feigl 1981.

find funds; they often set up periodicals or institutions such as the Ernst Mach Verein of the Wiener Kreis. And when they did not have such outlets yet, or when they wished to reach a larger audience they opted for daily newspapers such as '*Die Neue Freie Presse*' or the *'Arbeiter-Zeitung'*. Neurath, unlike Schlick who would have preferred a more closed and private setting, felt naturally at home in this environment where attracting attention was key. He organised public lectures, set up various institutions, and to stimulate the spread of scientific knowledge he developed a new pictorial language will be discussed in the next section.

Pictures unite, words divide

Much of Neurath's activity in the 1920s took place within various organisations which promoted the emancipation of the working class. In the early 1920s Neurath was involved in several initiatives to improve the living conditions of the working class. According to Neurath the best way to improve these was to become partially independent from the market, through self-help. This strategy had a long history in Vienna, dating back at least to the 1860s. Through savings and cooperation the working class could improve their own living conditions. Neurath's primary focus lay on housing and gardens. The garden could provide at least some of the food families needed, making them less dependent on the market. Neurath drew up schemes through which workers could buy their own home at a reduced rate, since these homes were e.g. built by the community itself. Growing your own food was especially relevant in a city plagued by rampant inflation in the post-war years, which was not successfully curbed until 1922. This same inflation was a great difficulty for the improvement of housing, since many of the building materials were expensive. Nonetheless the work of Neurath was highly influential.

In 1923, when Neurath had become general secretary of the Settlers and Gardeners League, which had stimulated much of the social housing projects, he presented a big exhibition on the square in front of the Viennese City Hall. At this exhibition he presented some actual size models of houses for the working class. At that moment only few of these houses had actually been built, but they were a great example for the social housing projects which the city of Vienna would undertake later. Another part of the exhibition proved even more successful for Neurath. This part of the exhibition was situated inside the City Hall and it consisted of pictorial statistics which showed the plans of the League

and the progress so far. Next to the progress they also displayed a pictorial representation of the present living conditions and the changes in living conditions over the past years. The exhibition was attended by over 200,000 people (Vossoughian 2008, 38).

The Settlers movement was put in a difficult position because of its own success. The city government decided to build some 25,000 houses for the working class, and the movement was divided over whether this was to be celebrated or not. It did in fact make much of the movement irrelevant, but Neurath however seemed to have found his calling. The success of his exhibition of visual information had inspired him to develop a pictorial language, which could educate and elevate the working class. Meanwhile he stayed in contact with other architects and urban planners in Europe, such as Walter Gropius and Hendrik Petrus Berlage. They had praised Neurath for his attempts to visualise the building programme of Vienna. And Neurath managed to set up a permanent exhibition in the People's Hall of the City Hall. This exhibition would later evolve into the Gesellschafts- und Wirtschaftsmuseum (Museum of Society and Economy). Neurath's visualisations were again a big success when Vienna hosted the International Town Planning Congress in 1926.

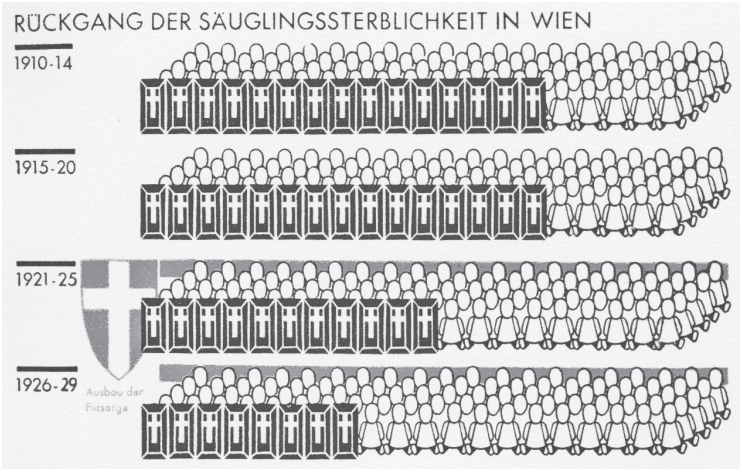

Figure 1: Decline of infant mortality in Vienna, coffins indicate deaths per 100 childbirths. The red/white cross is labelled 'expansion of preventive measures'.

As head of the museum Neurath set up a team of people who would invent a kind of universal pictorial language. This language had to be both clear and simple. His sources of inspiration were modern advertisements and modern cinema: 'If one seeks to disseminate socio-scientific education generally, one must use similar means of representation' (Neurath, quoted in Vossoughian 2008, 49). This socio-scientific education was supposed to promote the understanding of the living conditions of the working class and how these conditions could be improved. Many of his early statistics show optimistic developments which illustrate progress in the modern world. Figure 1 for example shows the falling infant mortality rate in Vienna. Neurath's ideal was that such pictures would be directly understandable, even to those who could not read or write. So the pictures showed in the most straight-forward manner the social relations and other social facts. From later versions text would disappear more and more.

To standardise and simplify these pictures as much as possible Neurath collaborated with various visual artists, who were often themselves involved in modern artistic movements. The most important of these was initially Peter Alma, a Dutchman and later the German Gerd Arntz who joined Neurath at the museum in 1928. Both Neurath and Arntz had a great drive towards clarity and simplification and they started developing a universal pictorial language, which could as easily be used in New York as in Vienna. And gradually the language indeed came into use in various places. Neurath helped to set up exhibitions in Berlin, Moscow, Mexico City, Chicago and New York. At the same time he started publishing guidelines for the use of his ISOTYPE statistics. Neurath's method of visual statistics was even adopted as a requirement in some institutions in the Soviet Union. The Council of People's Commissars had issued a special decree that 'Dr. Neurath's method of graphic representation of statistics is to be applied in all schools, trade unions, public and cooperative organisations' (Neurath 1933/1973, 222). In 1933 Neurath bragged that 'the northern half of the world has been won for the method of pictorial statistics; let's move on to the southern half' (Neurath, 1933/1973, 223). And while that claim was certainly overstated, Neurath's pictorial statistics had and still have a large influence on the presentation of various sorts of statistics.

Neurath's drive for a universal pictorial language, which could be used in various countries, brought him into contact with like-minded individuals all over the world. And his goals of clarity, simplicity and

emancipation resonated well with various modernist artists who were pursuing similar aesthetic and social goals in art. These shared goals, intellectual as well as political, brought Neurath together with people from various disciplines. Neurath's visual statistics started as an attempt to provide education for the working classes. He wanted to make scientific knowledge available to the working class and he believed that this would transform their consciousness. This utopian ideal of peaceful transformation of the working class through education did not work out as Neurath had hoped. And during the 1930s he put his visual statistics to other uses. A good example is one of the books Neurath published towards the end of his life, *Modern Man in the Making* (1939). In this book he shows how progress and civilisation make human beings ever more alike. In the past humans and nations may have differed greatly, but now they were getting ever closer. With such publications he hoped to further international understanding and ultimately international peace. For as Neurath put it regarding these ideals: 'words divide, pictures unite' (Neurath 1931/1973, 217). But before he employed his visual statistics for this goal, his project attracted the attention of city planners across Europe.

City planning

The Congrès International d'Architecture Moderne (CIAM) is an organisation of modernist architects and urban planners founded in 1928 by prominent architects from across Europe. They invited Neurath to present his method of pictorial statistics at their fourth Congress in Athens in 1933. In 1932 he had regularly met with some of the members during his work in Moscow. Most of these members were Central European architects who had moved to Moscow to further the communist cause there. Neurath himself also supported communism in the Soviet Union, and there were more similarities between his goals and those of many modern architects. In Vienna Neurath had already collaborated with prominent architects such as Adolf Loos, Grete Schütte-Lihotzky and Josef Frank (his brother Philipp was a member of the Wiener Kreis). He approved of their building style and he shared their goal of transforming the living conditions of the working class. The housing projects of these architects often stressed functionality and low costs so that they would

be available to lower social classes (Cartwright et al. 1996, 62).[2] On the basis of such similarities and contacts with architects Neurath had in 1928 been invited to the Bauhaus. Afterwards he and his fellow philosophers of the Wiener Kreis would regularly go to the Bauhaus for lecture series and inspiration.

This connection between the Bauhaus and the Wiener Kreis has been extensively studied in the 1990s by Peter Galison, who argues that there are fundamental similarities between the philosophical project of the Wiener Kreis and the architectural project of the Bauhaus. We will not go into this issue here, but it should suffice to note that Neurath, according to fellow Wiener Kreis member Feigl, believed there to be such similarities:

> Neurath and Carnap felt that the Circle's philosophy was an expression of the *Neue Sachlichkeit* which was part of the ideology of the Bauhaus (…). This was indeed the basic attitude of the Vienna Circle (Feigl 1968, 637).

The sober, matter-of-fact attitude of the *Neue Sachlichkeit,* appealed to the philosophers of the Wiener Kreis, who wanted to get rid of metaphysical superfluities in science. Neurath even wanted to go as far as to do away with philosophy altogether, he considered it to be an superfluous ornament to science. In a similar way the architects associated with *Neue Sachlichkeit* wanted to abandon all ornaments and superfluities in architecture. The new conception of pure science, devoid of all metaphysics, had close similarities to the pure architecture of functionalism. The Bauhaus and the Wiener Kreis, or at least some members of both groups, also shared the utopian ideals of rebuilding a better world and for both the place to start was the improvement of living conditions and education.

Neurath was thus not at all out of place at the fourth Congress of the CIAM. The architects and city planners had invited him – among other things – to grant a kind of scientific legitimation to their city planning goals. The person who directly asked Neurath to join the CIAM Congress was Cornelius van Eesteren. Van Eesteren had just finished his plans for the expansion of Amsterdam. For these plans he had used a system of symbols and colours, which he had developed himself. He had requested Neurath to speak on his method for visual representation and its possible applications to city planning (Vossoughian 2008, 117-9).

[2] The projects can be compared with city extensions in other cities such as Amsterdam, in which modern architects also collaborated to build cheap, good quality houses for the working classes, with emancipatory goals in mind.

In the paper he delivered at the conference Neurath characteristically argued for the need for clarity and the application of a universal language. This time he paid special attention to the unity of the representation of architectural facts and statistical facts (Chapel 1996, 169). He presented his pictorial language, the 'figurative Esperanto', as a unified language with its own dictionary, grammar and style. Neurath argued that the adoption of such a language would not restrict the freedom of the architects; rather it would bring greater clarity and would do away with repetitions and superfluities, and thus create freedom. Another advantage of the adoption of this system would of course be that the language would be international and that it would stimulate co-operation between architects from different countries (Chapel 1996, 170).

These suggestions were well received at the conference and Van Eesteren had stressed similar advantages for the system he had developed. Lurking beneath the surface however was a large conflict over what precisely this system was to be able to do. For Van Eesteren the main goal of his system was to foster collaboration between architects and town planners across Europe. Neurath's primary objective however was to communicate the plans, and their impact to the public. Neurath also criticised Van Eesteren's plans along these lines at the conference. But before the conference was over these differences of opinion were quickly smoothed out.[3] Neurath was also warmly supported by some of the architects who stressed that CIAM had been established to foster not only the communication ties between experts but also those with other groups in society. And the architects appointed Neurath as expert at the CIAM commission for Statistics and Publications.

This collaboration would prove hardly fruitful. It started of promising, especially when Neurath migrated to the Netherlands, where he opened the International Foundation for Visual Communication in The Hague. This meant that Neurath and Van Eesteren could physically work together (Vossoughian 2008, 130-132). But Van Eesteren had meanwhile made clear in a letter to fellow committee member Moholy-Nagy that he was reluctant to fully accept Neurath's system: 'I remember your active contribution to discussions with Neurath, in which you always emphasised what is right from the human and psychological viewpoint: otherwise we would certainly have fallen prey to Neurath's system, which is

[3] Although some reports state that Laszlo Moholy-Nagy and Neurath already had serious disagreements if not fights about their plans (Chapel, 1996: 172).

somewhat limited' (Van Eesteren, quoted in Chapel 1996, 173). The complaint that Neurath's system was lacking in humanistic or psychological aspects is odd. Van Eesteren's own system was much more abstract and technical than Neurath's straightforward system of pictorial representation. Some of the members of the CIAM however had found Neurath's system limiting because it did not allow for spatial representation.

Further developments, especially on a personal level, increased the distance between Neurath and the members of the CIAM. Besides personal struggles, the most important reason was probably that Neurath's language was intended for the general public, whereas the architects of the CIAM were ultimately primarily interested in communication among peers. They were thus looking for a specialised international (visual) language for town planning. For the architects it was of greater value to first construct a professional visual language than to construct a general one. This attitude touched a sore spot with Neurath, who in his later writings made quite disparaging remarks about city planning: 'Much city planning is full of pomposity, with a totalitarian undercurrent, pressing forward some way of life (…) For a democratic society it is important to have a common language' (Neurath 1945, 247).

Vossoughian adds that political tensions were also growing. Neurath's attempts to educate the working class and his view on modern city planning taking it to mean planning for and with the working class – became politically more and more suspicious. The report by the new fascist authorities in Vienna was clear about Neurath's Museum for Society and Economy: 'In this museum there remain nothing but communists: a Swiss, a Dutchman, a German from Frankfurt am Main, two Russians, etc.' (quoted in Vossoughian 2008, 130). Vossoughian also recounts an occurrence at the 'Functional City' exhibition at the Stedelijk Museum in Amsterdam in 1935 which illustrates that political tension often came to the fore. At the exhibition a fierce discussion broke out between politically conservative and socialist architects. The cause of the tension was a collage on a table designed by Steiger and Hess, on which the historical development of the city was divided into five epochs and which showed how modern cities 'dominate the world economy through organised finance capitalism' (Steiger, quoted in Vossoughian 2008, 135). This openly political statement was too much for Gropius, Giedion and Dutch architect J.J.P. Oud who had the artwork removed from the wall. This political tension between older politically more conservative archi-

tects and the radical avant-garde had been present for a longer time. Until then however they had co-existed well, but the political situation was changing, and as Gropius wrote in a letter; the political stance of Steiger, Hess and Neurath had become 'politically dangerous'. The CIAM thus cut ties with collaborators who were too clearly associated with socialism or communism.

Neurath thus failed in the end to set up a successful collaboration with like-minded people. His goals of a simple and democratic visual language proved difficult to implement for a group of specialists, mainly interested in communication among themselves. Practising the ideals of cooperation and openness became harder in a highly politicised world in which many intellectuals grew cautious about relationships and affiliations.

His collaboration with the CIAM was not the only time Neurath ran into such problems. In his attempts to set up an Encyclopedia of the Unified Sciences he encountered similar problems. For Neurath it was important that the authors of this Encyclopedia would adopt a unified and non-metaphysical language. What qualified as metaphysics was however hard to establish. Neurath for example preferred the term 'empirical argument', where many other authors favoured the more common 'explanation'. Neurath felt that the former was clearer and completely devoid of metaphysical connotations, but Feigl became very frustrated over what he called 'senile terminophobic objections' (Feigl quoted in Reisch 1996, 82). And while Neurath was aware that even the unified languages he promoted should be open to criticism, in practice this was very difficult. Neurath often decided, unilaterally, on the precise vocabulary and grammar of his universal languages. He therefore often met resistance when collaborating with other intellectuals and groups who had difficulty accepting his universal language *en bloc*.

Politics and personality

We have in no way exhausted Neurath's many endeavours or intellectual exchanges, only some of them: his encyclopaedia project, the social housing projects and the visual language ISOTYPE. All of these projects were conducted in collaboration with other intellectuals from the fields of art, science and politics. They were also all undertaken with both intellectual as well as social goals in mind. In his work, attempts to get rid of ornaments or metaphysical language in both architecture, modern art

and science could go hand in hand. And an underlying socialist current, which was often not very well articulated, further stimulated the cooperation between these intellectuals. They shared a feeling that their generation could change things through cooperation in science, politics and art.

This was evident in Neurath's attempt to construct a universal pictorial language. The constructors of such new languages as Esperanto or Ido, wanted to overcome nationalism and national differences. Neurath's experiences during WWI when he had been engaged in wartime planning, had convinced him that the new world could be constructed on scientific principles. And many of his interwar projects were attempts to apply such scientific planning, or social engineering as he sometimes called it, to architecture, communication and the economy. As such he was part of a wider European intellectual movement, which believed that it would be possible to reconstruct the world based on science.

Such ideals however often ran into practical difficulties; as we saw above neither cities nor languages can be changed overnight. And throughout the 1930s Neurath himself moved away from this revolutionary idea of the reconstruction of society, instead he wanted to start in the field which he knew best: science. If it were possible for scientists to formulate a universal language, and a formidable international republic of scholars, this could be an example for Europe and the world. This idea of the republic of scholars brought him into contact with the Belgian Paul Otlet, who shared Neurath's ideals of international dialogue and pacifism. And many of the architects and designers at the Bauhaus, with whom Neurath had close relations, also believed that their work could fundamentally alter the modern world.

However, political differences were never far away. Both in the Wiener Kreis as well as in his collaborations with CIAM Neurath worked with intellectuals who shared many goals but were reluctant to share in his socialism. They rather satisfied themselves with more modest goals within their disciplines, undoubtedly partly motivated by the political climate. Neurath himself had never had much of an antenna for such political sensitivity. Just after WWI Neurath's political idealism had even gotten him into serious trouble. He had drawn up plans for the socialisation of Bavaria and was initially very successful in attracting support for them. However when the political tide changed he was accused and convicted for high treason. It took the intervention of Max Weber and Otto Bauer among others to get him out of jail. Interestingly enough, they had argued that since Neurath was a scientist, his plans to socialise

the economy were of a purely objective nature. And when reminiscencing about Neurath, many of his friends reflect on his political naivety (see various contributions in Neurath, 1973).

On the other hand, Neurath's personality also contributed to his various collaborations. His vitality and energy were often irresistible to others and thus he was able to make them contribute to his projects. Many of his contemporaries testify to this. Ernst Niekisch, the political leader of the short-lived Bavarian Soviet Republic remembers him as such:

> Neurath's vitality was almost irresistible. He visited everybody whom he wanted to support his goals. He was confident that he would be able to convince those who resisted (…). It was amazing how Neurath tyrannised the whole cabinet. He fought for every part of the socialisation bill, resisted every change, issued several ultimata, threatened to leave abruptly and so intimidated the ministers one by one (Niekisch, quoted in Cartwright et al. 1996, 47).

Neurath never slowed down, and was always working – especially during his younger years with a certain recklessness – on many projects simultaneously. Another good illustration of this perseverance is that Neurath was known to call out 'metaphysics' during seminar meetings, whenever a speaker ventured into metaphysical realms. When it was once suggested that Neurath perhaps should 'hum' instead when he disapproved, Neurath quipped that it would be easier if he would say 'not-M', whenever the discussion was not about metaphysics.

This energetic, outgoing personality made Neurath many friends, and made him quickly at home in the various places he worked. At the same time people were often taken aback by his initiatives and directness. We have already seen how Schlick refused to have Neurath in his home, and how Schlick was completely surprised by the manifesto published by Neurath. In his collaboration with the architects and later in the Unity of Science project, we also saw that teamwork to Neurath often meant that other people helped realise *his* goals. Both the architects and the philosophers of science contributing to his project were reluctant to fully embrace Neurath's ideas, even though they shared most of his goals. This made collaboration hard, since Neurath demanded his views be fully adopted. Exchange for him was often a one way affair, although over the course of his career he did show some signs of improvement concerning cooperation with others.

Conclusion: between the coffeehouse and academia

Otto Neurath held a prominent place in various intellectual networks in the interwar years. He was not only a renowned member of the Vienna Circle, he was also actively involved in projects of language development, architecture and city planning which aimed primarily at improving international understanding and emancipation of the working class. Interwar Europe made for a unique intellectual environment of which Neurath was an exponent. It was not academic life which was at the centre of this intellectual climate, but intellectual networks. This was true locally in Vienna in the Viennese circles, but also regionally in Europe, where intellectuals organised international conferences, exhibitions and set up ad-hoc institutions. While Neurath's ideals were often universal in character, they were formulated against and shaped by the European context of the interwar period. Europe was of importance both as the intellectual context in which he developed his ideas and as the larger region in which he tried to realise them.

The case of Neurath illustrates well that intellectual collaboration was often difficult. It was not just his personality that can explain this. Many of the projects Neurath had undertaken during the 1920s became politically more problematic during the 1930s. The social housing project had been very successful in the Red Vienna of the 1920s, but was extinguished in the fascist capital of the 1930s. And when many members of the Vienna Circle were forced to migrate to the United States or the United Kingdom it greatly harmed many of Neurath's projects. He did find collaborators in the new world, amongst them Philip Morris who helped him with his Unity of Science project, but the political edge of Neurath's work remained problematic in the Cold War world. As Reisch has shown in his study of the migration of the Vienna Circle, its social and political programme virtually disappeared and it became a purely philosophical project. The contributions of Neurath were thus often neglected at the expense of his more academically-minded and more purely philosophical friends, most notably Carnap and Frank. The philosophical project they had set in motion was continued and elaborated in the United States, but its social and political significance had been lost (Reisch 2005).

When Neurath passed away in 1945 his wife Marie Neurath who had been involved in many of his projects did continue one of them with some success. Neurath's ISOTYPE or visual language would continue to

be influential in visualising various statistics in museums as well as in science. But in the ISOTYPE project as well as in the other projects mentioned above, the emancipatory goals for which Neurath had originally developed them were largely forgotten.

But what contributed perhaps most to the dwindling of his legacy was the fact that Neurath had operated in that curious intellectual space between coffeehouse and university. He left behind no philosophical tract, and many of his publications had a more direct connection to the various museums, conferences and other projects under which umbrella he had operated. The activities in the Circle had of course been mostly verbal, not to mention that all his work of the 1920s and before had been in German. It would take until 1973 before a volume of his work was translated, and only recently scholars on the Vienna Circle such as Cartwright, Nemeth and Stadler have contributed to more interest in Neurath. What they point out, and what is most striking indeed when looking at Neurath's bibliography is the sheer range of it. It represents the various conversations he has been part of in the interwar period. Unconstrained by academic specialisations or fields, he was able to develop his interests in their full breadth and scope: across social science, philosophy, politics and social reform. At the same time it makes it hard to nail him down, and reading the recent volumes on his work one sees commentators struggling with the many ambiguities and contradictions when considering his work as that of an academic philosopher (see especially Cartwright et al., 1996). Opportunism or a change in his projects shifted goals and ideals for Neurath. It can be said that he simply could not afford the luxury of the search for consistency in the way his academic colleagues could.

Neurath thus benefited in a particular way from the circumstances in the interwar Period. He had the range and scope required for the intellectual conversations in Vienna. He had had a training which was not constrained by disciplinary boundaries and even his early academic work was about law, philosophy, sociology and economics. At the same time there was a need to organise knowledge in a modernising and expanding world. He set up institutions during the interwar period which would prove to be an inspiration to post-war institutions and would ultimately lead to the professionalisation and specialisation of knowledge. He could thus become the organiser when there was still a lack of organisation, and at the same time enjoy the freedom of the coffeehouse intellectual. This however did come at a price, much of his work was specific to the

interwar Period: its ideals, conferences, projects, and political context, and that made it less easy for those in other times to continue his work or build on his legacy. And while Vienna scholar William Johnston (1972) includes Neurath among the ranks of Wittgenstein, Husserl and Freud, his post-war influence does not come close to theirs.

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