

Chapter 17

Thinking About the “Common Reader:” Otto Neurath, L. Susan Stebbing and the (Modern) Picture-Text Style



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Abstract When Otto Neurath went into exile in 1934, first to Holland and then to England, he succeeded in establishing important new connections within the context of the international Unity of Science movement, for which he was largely responsible. A notable example was the British philosopher L. Susan Stebbing, who supported his pragmatic ideas on the “humanization” of knowledge. Both Neurath and Stebbing were looking for ways to apply modern logic and linguistic analysis, not only to the transfer of information in science and teaching, but above all in publication projects for the “common reader.” In 1941, Stebbing became the first president of the Isotype Institute in Oxford, which Neurath directed until 1945. Soon after ISOTYPE was founded, long-term relations began between it and the book-packaging company Adprint managed by German-speaking emigrés in London, as well as its successors and British clients (publishers). A technically and organizationally sophisticated process for the production of illustrated non-fiction books was gradually established. The “picture-text style” developed by Neurath and epitomized in *Modern Man in the Making* (1939) was applied to non-fiction books and series with “integrated layouts,” then professionalized and successively transformed into a production model for illustrated books which enabled scientific information to be prepared for the mass market and the “common reader” – in the service of a modern, democratic (post-war) society.

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17.1 L. Susan Stebbing and Otto Neurath: Clear Thinking and the Democratization of Knowledge

In exile in The Hague, Otto Neurath wrote a letter on 30 July 1934 to the British philosopher Professor L. Susan Stebbing (1885–1943) in London to invite her to the *First International Congress for the Unity of Science* in Paris in 1935 and to a preparatory meeting in Marienbad in August 1934, which was to take place shortly before the *International Congress of Philosophy* in Prague.¹ This formal invitation was the prelude to a regular exchange of letters which lasted until Neurath's flight to England and the end of his internment on the Isle of Man in early 1941. It was also the beginning of a friendship, which lasted until Stebbing's early death in 1943 and was marked by a continuous exchange of ideas and collaboration. The latter took place not only within the framework of the Unity of Science movement, of which Stebbing was an active member, but also in an attempt to democratize knowledge. Stebbing soon became a member of the committee that organized congresses, and was especially involved in the *Fourth International Congress* at Girton College in Cambridge (14–19 July 1938) on the topic of "Scientific Language." She also gradually became involved in the scientific activities and publication projects of the Unity of Science movement (see Sandner 2014, 257ff.). In addition, she became the first president of the Isotype Institute founded in Oxford in 1941, where she supported Neurath's efforts to make the principles of logical thinking and the critical use of language into a basis for the transfer of knowledge outside science. The fact that Neurath made this philosopher the president of the Isotype Institute makes sense, given that he found her not only an equal companion in implementing the scientific goals of the Unity of Science Movement, but also an individual who critically questioned the political and social situation during the war and whose own interests had focused increasingly on linking analytical logical thinking with the world of practical life and whose own texts were directed at the "common reader," i.e. the "citizen" who is politically aware and active. In order to better understand Stebbing's role and significance, some brief biographical information is needed.

L. Susan Stebbing was born in 1885 as the youngest of six children of a merchant. She studied history at Girton College in Cambridge from 1904 to 1908 – which was exceptional at that time.² Following her interests, she began studying philosophy, which she completed in 1912 with an MA in Moral Science at King's College London. In 1933 she was the first woman in Great Britain to be appointed a professor of philosophy, at Bedford College in London. Stebbing was co-founder of the journal *Analysis*, chairman of the Aristotelian Society (1933–1934) and presi-

¹ See correspondence between Otto Neurath and L. Susan Stebbing (No. 303, 304; 30.07.1934 to ca. Jan./Feb.1941) at Otto Neurath Nachlass (ONN), Wiener Kreis Archiv, Noord-Hollands Archiv, Haarlem (NL), partial estate of Otto Neurath. Stebbing replied on 14 July 1934 that unfortunately she could not attend the pre-conference and the philosophy congress in Prague, but intended to attend the conference in Paris planned for 1935, which she did.

² See Beaney and Chapman (2017), Beaney (2003) and Chapman (2013). The biographical information in this section is taken primarily from Beaney's and Chapman's publications.

dent of the Mind Association (1931–1932). During her studies she was influenced primarily by the philosophy of G. E. Moore, whom she first met in 1917 at one of her talks at the Aristotelian Society. She was also particularly interested in modern logic, philosophy of science and philosophy of language, as represented by the philosopher/mathematicians Bertrand Russell and Alfred N. Whitehead. Stebbing can therefore be regarded as a representative of what later became known as the Cambridge School within analytical philosophy, which was committed to the logical analysis and interpretation of common language to solve philosophical and individual scientific problems – even before the rise of ordinary language philosophy in Oxford after the end of the Second World War.

In her standard work *A Modern Introduction to Logic* (1930), which went through several editions and reprints, modern mathematical logic was already treated on an equal footing with Aristotelian logic, and the work is regarded as the “first textbook of analytic philosophy.” As Beaney and Chapman found, she also played a decisive role in establishing the philosophy of the Vienna Circle and logical empiricism in Great Britain: Stebbing “was at the centre of the debate about the relationship between the Cambridge School and the Vienna Circle, which formed the two main traditions of analytic philosophy in the 1930s” (Beaney 2003, 339). When Neurath contacted Stebbing in 1934, she had already gained an international reputation³ and been a visiting professor at Columbia University in New York in 1931–1932. Having expressed great interest in the Vienna Circle,⁴ she had met Moritz Schlick at the *Seventh International Congress of Philosophy* in Oxford in 1930, and in 1934 invited Rudolf Carnap to attend a series of lectures at Bedford College in London where he was also introduced to Bertrand Russell and Alfred J. Ayer.

In the regular and increasingly personal correspondence housed at the Noord-Hollands Archief in Haarlem, Neurath also informed Stebbing about his plans in the field of visual education. In April 1939 he wrote, “I read your blue booklet [*Thinking to Some Purpose*⁵] through and was very pleased to find the remarks about Visual Miseducation. Excuse me, please, that I beg you to write a review on my booklet[s] *International Picture Language. The first rules of ISOTYPE* and *Basic by ISOTYPE*. I seek always a reviewer for these books, but nobody of our people who are interested in Logic are interested in Visual Education and *ISOTYPE* too. You are the first; I am very glad that you are full of educational ideas. It is nice that you are a member of the board of directors of our International Foundation of Visual Education.”⁶

Neurath’s statement is relevant in several ways. It indicates reflection on his own position within the Vienna Circle and the logical empiricism movement in exile,

³In a letter to Stebbing dated 12 Feb. 1938 Neurath describes her as “famous logician.” See Correspondence Neurath, Stebbing (1934–1941).

⁴See Stebbing to Neurath 14 July 1934, Corr. No. 303. (ONN). Cf. Beaney (2003, 339).

⁵Neurath is probably referring to a passage in the chapter “On being misled by half, and other fractions” in which Stebbing (1939, 154f.) deals in particular with the misleading and erroneous graphical conversion of statistical data. Since the 1920s, Neurath and his team had been working on preventing such errors.

⁶Neurath to Stebbing, 8 April 1939; original emphases. Corr. No. 304. (ONN).

while also identifying Stebbing as like-minded in so far as she combines the method of logical analysis with critique schooled in everyday use and the effort to objectify ordinary language, especially in the public sphere. At the same time it reveals that Stebbing's interest and involvement in the Visual Education project did not begin in 1941 when she became president of the Isotype Institute, but that she had belonged since 1939 to the Foundation of Visual Education which had been founded in The Hague in 1934.⁷ In *Thinking to Some Purpose* Stebbing (1939, 153ff.) had already discussed statistics and their pictorial representation and pointed out that these are fundamentally helpful and meaningful means of grasping contexts, but only if they are systematically and carefully executed. On a more fundamental level, however, Neurath's letter also suggests that he saw himself increasingly – as has been noted on numerous occasions⁸ – as an outsider in the scientific milieu of logical empiricism. This seems also to have been the case to some extent with Stebbing, at least with regard to her interest in the concrete communication of scientific content and the methodology of critical-analytical thinking across social boundaries. As Beaney and Chapman (2017) observe, “[s]he combined her commitment to formal logic with a belief in the importance of practical analysis of everyday texts and as a result in the necessity of public engagement by philosophers, in a manner which was at the time rare in academia.”

Stebbing's interest in Neurath's ideas for visualization thus becomes plausible, especially against the background of her own general approach to logical thinking, which she regarded as purposeful thinking and acting in the struggle against political ideologization and for democracy. She had initially treated language as a means of communication and conveyance of new scientific findings in an academic context. Her interest in modern mathematical logic, however, did not lead to the call for an ideal scientific language. Instead, and in contrast to representatives of Unified Science and logical empiricism, she doubted that an artificial symbolic language beyond mathematics could be developed for all sciences.⁹ However, she also saw an increasing need to make progress in the sciences accessible to the general public, and sought to direct scientific publications not only to experts and philosophers but also to the “common reader” for educational purposes. Her main interest lay in a clarifying, critical analysis of ordinary language and the disclosure of implicit prejudices and cognitive errors.

⁷ See Neurath to Stebbing, 4 May 1939, Corr. No. 304. (ONN).

⁸ Neurath's difficult position within the logical empiricism movement and his increasingly strained relationship with Carnap during exile in the debate on the “semantic turn” have been noted on various occasions. Neurath and Carnap, who emigrated to the USA in 1936 and taught at the University of Chicago, belonged to the “left wing” of the Vienna Circle and increasingly disagreed in exile about the goals and methodological foundations of unified science and the jointly edited publication project, the *International Encyclopedia of Unified Science*. For a recent review, see also Derek Anderson's and André Carus's chapters in this volume and Tuboly (2017).

⁹ See Stebbing (1937, 111). As she explains here, “[t]he only appropriate language is that of mathematics. To those who cannot use the symbolism of mathematics such scientific theories must remain largely incomprehensible.” Stebbing's understanding of logical analysis, also in demarcation to logical empiricism, cannot be further addressed in this context. See above all Beaney (2003).

In 1939, the same year that Neurath’s *Modern Man in the Making* was published in the US by Alfred A. Knopf, she published *Thinking to Some Purpose*, based on a series of lectures for the BBC, with Penguin in its Pelican book series for popular non-fiction. In this publication, mentioned above by Neurath, logical thinking is called “purposive thinking,” which should be clear, systematic and reflect the author’s own prejudices in order to form judgments and act accordingly (Stebbing 1939, 22ff., 27, 30). Stebbing also warned against popularizing complex scientific content in the service of entertainment without using sophisticated methodologies and appropriately precise and clear language. Neurath (1996, 257) explained his position in “Visual Education: Humanisation versus Popularisation,” as follows: “Sometimes writers think that it suffices to translate a translation of well-selected terms into popular terms is sufficient, whereas it is common knowledge that the insufficiency of these terms was the main reason for the introduction of scientific terms. This kind of translating from the complicated to the simple, from top to bottom, as it were, we shall call, Popularisation of knowledge.”

Stebbing explicitly opposed those authors and scientists who sought to win over the lay public by emotional evocation, personification and improper language and metaphor – which serve precisely to hinder logical thinking on the part of the reader. Since Stebbing’s writings are little known, a longer passage on this topic from *Philosophy and the Physicists* (1937) is cited below. Here she criticized particularly the writings of Sir James Jeans and Sir Arthur Stanley Eddington, well-known physicists, astronomers and scientific popularizers:

In these days of popular expositions, both written and broadcast, of Outlines, and of mammoth Guides to the Intelligent Man – guides through science, guides through economics [...] the common reader cannot be unaware that the sciences in general and the physical sciences in particular have been developing rapidly [...]. These developments in science have a twofold interest. First, their results have given us information, often surprising, about the world we live in. Secondly, the following out of scientific method is in itself exciting, affording us the purest of all satisfactions – intellectual satisfaction. There is among common readers a genuine interest in scientific research, a desire to follow as far as a layman can what is being found and to understand the implications of these findings [...] there are not a few scientists who have written books that to some extent satisfy our needs. Unfortunately, however, there are other famous scientists who do not seem to realize that their subject has an intrinsic interest for the common reader, and accordingly they seek to arouse his emotions, thereby inducing a frame of mind inimical to intellectual discernment. Popularizations of such a kind constitute a grave danger to thinking clearly. [...] Yet we common readers surely have a right to expect that a scientist setting out to discuss for our benefit philosophical problems arising from his special studies will do so in a scientific spirit. He would seem to be under a special obligation to avoid cheap emotionalism and specious appeals, and to write as clearly as the difficult nature of the subject-matter permits. (Stebbing 1937, 4ff.)

Similar to Neurath’s approach, Stebbing’s rejection is directed ultimately against the ignorance of experts that leads to inappropriate simplifications, imprecise generalizations or abstractions and distortions of facts. As she also stated in *Thinking to Some Purpose* (1939, 30, 238f.), this favors that “muddled thinking” which stands in the way of purposeful logical thinking and makes it susceptible to instrumentalization, for example by political authorities. Moreover, she called for a use of language that is appropriate to the subject and that reflects one’s own type of

communication, especially from those who influence a society's politics, social affairs and science. She also emphasized that there could be no absolute, "neutral" and objective knowledge, and that even attempts to enlighten should always be examined.

Her understanding of knowledge seems to resemble Neurath's approach as described in his well-known ship simile (Cartwright, Cat, Fleck and Uebel 1996, 89–95). Also for Stebbing, science is a collective undertaking based on intersubjectively achieved knowledge that remains contextually bound and revisable:

Science is the work of scientists, who, profiting by each other's labours, come gradually to achieve an agreed body of knowledge, and in the course of this achievement continually develop new and more powerful technical methods. The natural scientist observes, formulates hypotheses, performs experiments, and verifies his theoretical constructions. A scientific law worthy of the name of a Principle [...] is achieved only by the labours of scientists working within a certain context of agreed theory, subject no doubt from time to time to considerable revision, but capable of being taken as the main basis for further advance. (Stebbing 1937, 69.)

Overall, Stebbing's approach is to combine theory and practice, i.e. to link the principles of logic with pedagogical goals in everyday contexts and make them usable for the public sphere and for social and political debate. This ultimately connects her approach with Neurath's.¹⁰ He writes the following in his essay "Universal Jargon and Terminology" (1941/1983, 217): "It is not only by accident that L. Susan Stebbing wrote on the one hand a book criticizing highly metaphysical speculations of modern physicists and on the other hand her *Thinking to Some Purpose* and her *Ideals and Illusions*. It will be stimulating when we new critics of our language will be criticized by means of the procedures we proposed."

Regardless of her interest in principle, however, Stebbing was quite critical of some positions of logical empiricism represented by members of the Vienna Circle, including Otto Neurath, especially of their criticism of metaphysics as Beaney and Chapman (2017) have emphasized. Nevertheless, she can be seen as a mediator between positions in the Vienna Circle and the Cambridge School – although her achievements extend beyond that. Beaney and Chapman also note that

she saw no discrepancy between the rigours of logical argument and the requirements of practical problem solving, and stressed the need for clarity and transparency in language use. In this, she championed the importance to philosophers of paying attention to ordinary language and the varieties of its everyday use somewhat in advance of the rise of 'ordinary language philosophy' in Oxford after the Second World War. (Beaney and Chapman 2017.)

Neurath himself was convinced that in Stebbing the logician he had found an interlocutor who shared his interest in visual communication, language criticism and socio-political thinking. On 12 February 1938, he wrote to her, "you are flesh of the flesh of logical empiricism."¹¹

In his examination of her writings and in the correspondence between the two which has yet to be studied in detail, Neurath clearly received ideas for his own

¹⁰For the relation of (social and political) practice and theory, see Don Howard's chapter in the present volume.

¹¹Neurath to Stebbing, 12 February 1938, Corr. No. 303. (ONN).

work. In exile he was also looking for other avenues to explore and other ways to further expand his readership, for example by working with the Adprint book packager and via publications for the Anglo-American book market. As president of ISOTYPE in Oxford, Stebbing was only able to guide the further development of the institute until 1943.¹² In a letter to Rudolf Carnap dated 25 September 1943, Neurath wrote that “Stebbing died after a cancer operation. [...] Our best friend. A very brave and sincere personality. Many people in England feel her death a heavy loss. She represented a kind of public conscience for some circles. We loved her. [...] She acted as chairman, as I lectured in Cambridge, in a very nice way, and in agreement with most of my statements.”¹³

17.2 Clarity in Thought and Expression: The Picture-Text Style and the Integrated Book

In his preface to *Modern Man in the Making*, Otto Neurath described the visual style developed to present the book’s content – a historical-sociological view of the global development of modern man, cultures, wars, business and scientific and medical progress – as follows:

An attempt has been made to evolve for this purpose a special picture-text-style which should enable anybody to walk through the modern world that is beginning to appear about us and see it as he may see a landscape with its hills and plains, woods and meadows. [...] The principle of visualization applied in this book is based on the ISOTYPE method, developed by me together with my collaborators during the last fifteen years. It shows connexions between facts instead of discussing them. Impressive visual aids do not merely act as illustrations or as eye-bait in this book; they are parts of the explanations themselves. The reader may not understand the contents by reading the text only; he must ‘read’ the pictures as carefully as the text. An international picture language is combined with a world language. (Neurath 1939, 7f.)

The form of knowledge transfer described here was not simply a further development of the Viennese method of visualizing statistical data that arose in Austria in the 1920s and was used extensively at the Österreichisches Gesellschafts- und Wirtschaftsmuseum (Social and Economic Museum of Vienna).¹⁴ It was a question

¹²The ISOTYPE collection at the archive of the University of Reading apparently contains no further documents or letters by L. Susan Stebbing.

¹³Neurath to Carnap, 25 September 1943 (RC 102–55-03); see letter 22 in the present volume.

¹⁴As part of Neurath’s work at the Museum for Social and Economic Affairs which he directed from 1925 on, a major focus was on disseminating new scientific and socio-politically relevant information on behalf of the Vienna City Administration, the Chamber of Labour and the Social Insurance Institutes. For example, quantitative statistical data and facts that had been widely distributed in newspapers and magazines since the end of the nineteenth century were to be translated into graphical form for the purposes of popular enlightenment. The “Vienna Method,” which had become known in Austria and abroad via exhibitions, publications and lectures, ended in 1934 with the expulsion of almost all permanent employees into exile. Also in exile, Neurath continued the

of finding a new style of communication for another medium,¹⁵ which in view of the changes brought by war and exile could continue pursuing pedagogical aims in the service of the general public just as effectively as scientific work in the Unity of Science movement. For Neurath (1996, 259), the two aims were inseparable: “The educational background for Visual Education is that of Unified Science.” On 8 April 1939 he wrote to Stebbing, “You know I plan to prepare a Visual Thesaurus in our institute, as a ‘pendant’ (companion pair) to our Encyclopedia. The one Unification by Visualization, the other Unification by Logicalisation.”¹⁶

The aim was to promote the conditions for cooperation across social boundaries and national borders, because for Neurath the (re-)construction of a tolerant and democratic world society depended on this. Just as Stebbing called for critical thinking, precise analysis and the conscious use of language, i.e. non-manipulative, emotional and streamlined transfer of knowledge to facilitate logical thinking and the formation of one’s own judgment in the direction of practical democratic action, Neurath (1996, 263) too strove for a consistent, internationally understandable “neutral” transfer of information made possible by the visualization of data – “a comprehensive Visual Education Scheme.” This visual style should be objective and easily accessible without being boring or aesthetically unattractive, applicable equally to the humanities and natural sciences, addressing high and mass culture or even different target groups, adults and children alike. Neurath (1996, 262) did see some exceptions, such as content with a high degree of abstraction: “Subjects that depend on verbal expression only cannot be taught by pictures, e.g. theological or philosophical doctrines. It is however perfectly possible to make quite complicated matters of fact intelligible by pictures.” Generally speaking, therefore, he was concerned with the search for “[...] possible ways of transferring simple scientific knowledge by means of a common visual language, as it were, in a common visual style” (Neurath 1996, 253).

Neurath had devoted great attention to historical models and developing the visualization of information, of both a scientific and non-scientific nature, in his other pictorial educational writings, especially in manuscripts that were only published posthumously (*From Hieroglyphics to Isotype. A visual autobiography*, and “Visual Education: Humanisation versus Popularisation”). As he explained in his publication planned for the “common reader” created as a supplement to the scientific text (“Visual Education”), he was not interested in the aesthetic quality of the images,

work with a small staff (especially Marie Reidemeister and Gerd Arntz); without the concrete framework of the museum, however, the content and type of work had to adapt to new requirements. See Burke, Kindle, Walker (2013), Nikolow (2006), (2007), and Angélique Groß’s chapter in the present volume.

¹⁵Marie Neurath (1973, 63f.) recalled the situation as follows: “I remember when Otto and I were walking together one evening along the street to post several letters and we were talking about *Modern Man*. Otto remarked that we had only to put together some of the many things we had done in the past; and for once it was my turn to suggest: why not use this chance to make something different? It was all in our hands. And so the picture-text style idea was born that night. It certainly came more from his brain than from mine, but I did present one real gift to him at that time, the word ‘Isotype.’ He heard it and liked it, and asked Arntz the next day to design an Isotype trademark.” See also the role of former employee Rudolf Modley in Ihara (2013, 325).

¹⁶Neurath to Stebbing, 8 April 1939, Corr. No. 304. (ONN).

but in the image as a sign, as a means of communication, as an “informative picture.” However, given the long historical tradition of visualizing content such as the knowledge of prehistoric cultures, the magical and religious ideas of the ancient Egyptians, astronomical observations and geometric drawings, or works such as maps up to and including the *Orbis Pictus* of Amos Comenius, Humboldt’s *Cosmos* and the French *Encyclopedia*, Neurath considered that the time had come to combine visualization with modern logical reasoning. In his *Visual Education*, for example, he explained that modern transfer of knowledge required closer links between verbal and visual education.

Two streams come together in modern visual education. One is visualisation in general and the other is logical arguing. Arguing requires a tradition. Our tradition in arguing and visualisation developed in the Church of the Middle Ages. Both can become secularised; this process has been supported by printing. Perhaps there is something in the idea that the parallel – scholasticism and visual aids in the Church – may find its counterpart in modern scientific arguing, together with visual aids. (Neurath 1996, 280).

Two things are expressed here. On the one hand, the method of close argumentational connections between text and image that Neurath strove for and achieved in *Modern Man in the Making*, which had also been possible in technically non-complicated ways even in the colorfully illuminated pages of medieval codexes was now facilitated by current technical innovations. These innovations made it increasingly easy to produce books and print illustrations in high quantity and quality. They included typesetting and rotary machines for print and reproduction purposes, coated paper (not only for plate sections) to gradually eliminate separating text and plate into different printed sheets, the successive use of offset printing and not least of all the rapid spread of photography at the turn of the nineteenth to the twentieth century.¹⁷ The combination of text and images in newspapers, magazines and advertising became more closely linked and complex, which affected the style of book illustrations.¹⁸

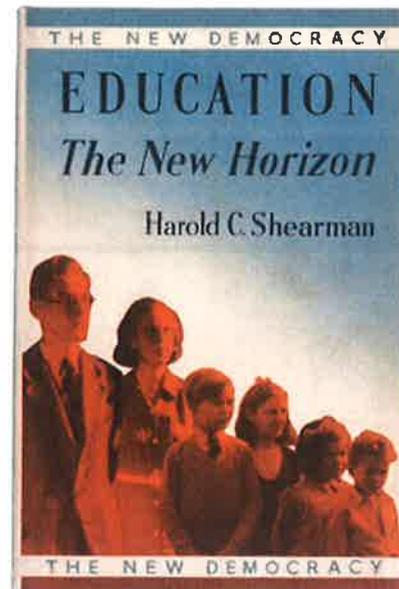
On the other hand, this type of knowledge transfer became particularly relevant for Neurath as a basis for socially responsible action against the background of social and political crises. “Sincere arguing is something of international importance because it creates a common basis for discussions and decisions. All tendencies towards what may be called logical empiricism are therefore particularly closely connected with consistent visual education. Both start from ordinary man’s commonsense and are in full harmony with highly developed scientific activities” (Neurath 1996, 285). It is precisely here that Neurath’s unbroken trust in education and science can be seen. As Cartwright, Cat, Fleck and Uebel (1996, 3) observe, “[a]lthough he was a pluralist about knowledge systems and took seriously their historical and cultural roots, he trusted firmly in the power of science.”

During World War Two, Adprint developed two series for the British publisher G. G. Harrap with financial support from the Ministry of Information. *The Soviets*

¹⁷ See Heiting (2012, 6–10); Lucius (2012, 315–320) and Peters (2012, 21–22).

¹⁸ One example is the work of the medical doctor and non-fiction author Fritz Kahn, who collaborated with his friend Paul Steiner on several book projects in exile. A business partner of Wolfgang Foges, Steiner had opened a branch of Adprint in New York and later very successfully managed it himself. On Fritz Kahn see Debschitz, (2009) and (2013) and on Steiner see Körber (2014).

Fig. 17.1 *The New Democracy: Education. The New Horizon*
Book cover of a title from 1947. The books were produced by Adprint, the sociologist Karl Mannheim was a member of the editorial committee, and Neurath's Isotype Institute was responsible for the visualization of the volume in coordination with the authors



and *Ourselves* and *America and Britain* were intended to make the British people more familiar with the everyday life and the political and economic systems of the other Allies. The *New Democracy* series for the Nicholson & Watson publishing house was intended to provide post-war British society with information and expert advice on important matters. The books were produced by Adprint and use Isotype graphics and photographs to illustrate the content. (Otto and Marie Neurath Isotype Collection, University of Reading, Figs. 17.1, 17.2, and 17.3)

As mentioned above, however, Neurath's visual picture-text style in books was associated with special system-based, organizational and technical requirements. Moreover, due to the limited resources available in exile, finding a suitable partner seemed the only way to secure the requisite technical know-how and the considerable funding needed for color reproduction and printing in order to produce further publications of this kind. Because Neurath's *Modern Man in the Making* had proven to be a success the American publisher Alfred A. Knopf offered him a follow-up project, but this eventually did not come to fruition on account of his having to flee again, this time from Holland. Even though Neurath was able to continue later his research on the planned topic ("Persecution and Brotherhood") in Oxford as well, he never got more than a few pages of notes.

A more sustainable form of collaboration was launched following Neurath's release from the internment camp to which he and Marie Reidemeister (later Neurath) had been sent after their flight. The Neuraths and their staff at the Isotype institute participated in these book projects with a small group of German-language publishers in exile¹⁹ in Great Britain who fled Nazi persecution in the 1930s and

¹⁹The terms exile, emigration and forced migration are understood here synonymously as non-freely chosen flight from the country of origin to a country of refuge on account of political and/or racist persecution, although exile research has long differentiated between groups of exile and emigrants in terms of causes, return interests, language behaviour etc. See especially the publication series *Exilforschung – Ein internationales Jahrbuch*, e.g.: Krohn and Winckler (2012, VII-XIV).

Fig. 17.2 *The New Democracy: Woman and a New Society*

This book, published in 1946 in *The New Democracy* series, was written by Karl Mannheim’s research assistant, the German sociologist Charlotte Lütkens

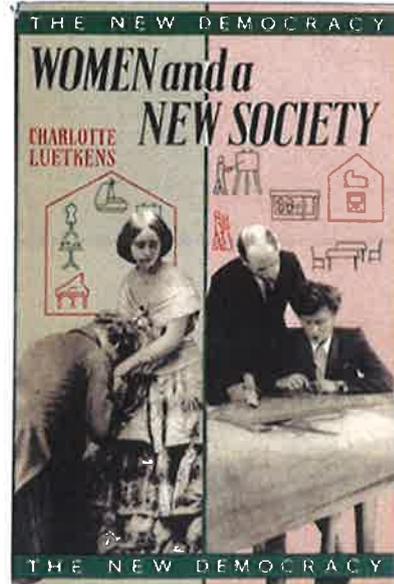
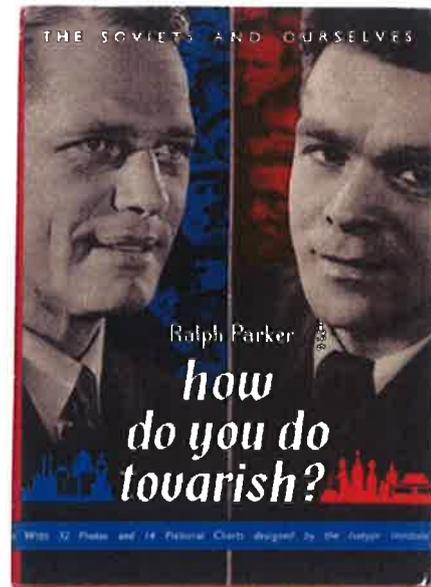


Fig. 17.3 *The Soviets and Ourselves: How do you do Tovarish?*

This volume, published in 1947 in the series *The Soviets and Ourselves*, was created for the publisher G.G. Harrap, subsidized by the Ministry of Information



1940s, including the publisher Wolfgang Foges (1910–1986). According to Marie Neurath, Foges was already familiar with Otto Neurath’s ideas when he emigrated to Great Britain (Neurath and Kinross 2009, 65). Both came from the same intellectual Viennese milieu and shared an interest in modern science, art and a visual culture established through new media.²⁰ In an interview in 1964, Foges described Otto Neurath as “the most important influence on my thinking” (cited in Hamilton 1964). Foges lived in London since 1937, and had previously published an illustrated magazine.²¹ His Adprint company produced primarily illustrated non-fiction

²⁰ See Burke (2010, XIII). On the influence of emigrated Jewish publishers, scientists and editors in the UK see James (1999, 371–377).

²¹ Foges was editor-in-chief of the Moderne Welt Verlag and the illustrated magazine *Moderne Welt* for art, literature and fashion in Vienna. It was founded in 1918 by the international company

books in series, initially with the financial support of Lord Glenconner (Tennant & Son).²² Foges worked with other German-speaking emigrants, including Eva Feuchtwang (1908–1999), Walter Neurath (1903–1967, no relation to Otto Neurath) and Paul Steiner (1913–1996)²³ who headed the US branch of Adprint in New York. The core group was supported by other creative emigrants from Germany and Austria, such as graphic artists, photographers and picture editors – a new professional occupation at the time.²⁴

Adprint achieved its first successes with the production of the illustrated *King Penguin* series starting in 1939, which essentially copied the German *Insel-Bücherei* series launched in 1912 (see Lambert 2009, 114). Penguin's small-format introductions to history, nature and wildlife, preferably those of Great Britain, contained an average of 16 color illustrations plus black-and-white images and made ideal and relatively inexpensive gifts (see Edwards and Hall 1988). The Adprint programme consisted of popular general education works ranging from culture and history to nature and technology. Adprint was probably the first publisher to be known as a "book packager," and thanks to this organizational form was also able to engage in productive joint projects (Ridler 1976, 9). A book packager was a book producer that designed books on behalf of or for publishers and produced them up to a pre-press stage, or also did commission printing (Schlitzer 2007, 13). Paul Steiner, Wolfgang Foges' friend and later business partner, wrote in his unpublished autobiography that this was a new business model that focussed on technically and organizationally complex publications with extensive picture material and text (see also Ridler 1976, 4).

Foges had the brilliant idea to establish a publishing house based on the principle of creating books, that is a publishing house whose sole purpose was to conceive books and book series, to commission the texts from competent authors, but not to worry about distribution [...], instead selling [...] the edition to an established publisher. Since the books in question were invariably non-fiction books that were conceived by an in-house editorial team and because those non-fiction book series lend themselves to illustration, Foges' book creation house was not just responsible for the text of the individual volumes, but also for the artwork. (Steiner, undated, 421f.)

This new production process required a modified organizational structure with a more team-oriented approach than was customary at traditional publishing houses.

Wiener Weltmode (Chic Parisienne Bachwitz AG) and changed hands several times before Foges became involved. See ANNO, the database of the Austrian National Library http://anno.onb.ac.at/info/dmw_info.htm

²²According to John Spiers, innovative book series can express publishers' self-image and creative visions. At the same time, such serial artefacts function as an independent system that can define public and personal fields of meaning and convey perspectives on the respective historical situations. See Spiers (2011, 1–61), also Lambert (2009, 113f).

²³For this and other biographical information on the individuals mentioned, see Fischer (2011, 78f., 227f., 312), and for Paul Steiner see Körber (2014).

²⁴For an in-depth analysis from an exile research perspective of the influence of German-language Jewish publishers on the British book market, especially art books, see Nyberg (2009, 51).



Fig. 17.4 Double page spread from the *The New Democracy series: Women and a New Society* (1946) *Women and a New Society*: “Comparison is an educational element,” says Neurath in his posthumously published “Visual Education.” A double-page spread from the Adprint publication shows how this principle can be implemented in layout design. Neurath also noted that this would encourage recipients to draw comparisons themselves – whether on the level of individual characteristics or topics. (Otto and Marie Neurath Isotype Collection, University of Reading)

In particular, in order to establish the successive text-image connections created with Isotype in what were known as “integrated layouts,” close coordination was needed between internal employees such as text and image editors, and external authors, photographers and designers. This type of cooperation would also become important in further developing illustrated non-fiction books.²⁵ The increasingly sophisticated production of heavily illustrated non-fiction books, which became successively differentiated and professionalized in the second half of the twentieth century, was most efficiently managed by creative teams working in concert (Körber 2016) (Figs. 17.4 and 17.5).

The principle of cooperation among editors, authors and graphic designers in planning and producing publications can already be seen in the first edition of

²⁵For reasons of space further attention cannot be devoted to the development of the non-fiction or illustrated non-fiction book. In brief, these are non-fiction, entertaining and comprehensible presentations of current and complex information, which can also contain illustrations, for readers without specific training in the respective field. Although such books have been produced at the latest since the Enlightenment, the idea of popularizing specialized knowledge gained a new quality following World War One. For more information see Voges (2012), Körber (2016).

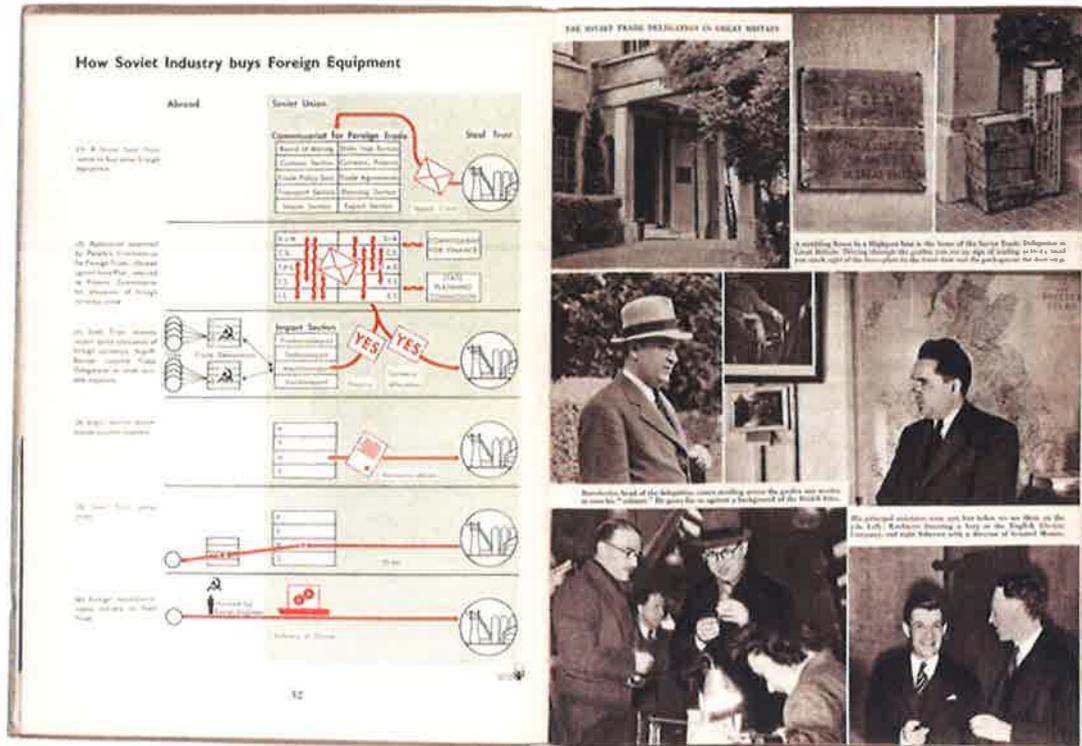


Fig. 17.5 Double page spread from the first volume of the *Future Book* series (1946)
 The *Future Books* series was produced by Adprint from 1946 to 1952. The series concept is based on a closely linked structure of text, photographs, maps and ISOTYPE graphics as can be seen on this double page from the first volume entitled *Overture*. The modern design of the books and the magazine of the same name was developed in close creative coordination and cooperation among Adprint employees, well-known authors, photographers and the Isotype Institute. (Otto and Marie Neurath Isotype Collection, University of Reading)

Adprint's *Future Books: Overture* series which started appearing in 1946. Like the similarly named *Future Magazine*, the series addressed socially relevant topics from culture to technology. "So far as method is concerned teamwork is the idea behind FUTURE books. It governs the planning of the series [...] it underlies the marriage of written and visual exposition which marks these books out from other miscellanies" (Milne 1946, 1). Especially with respect to technology, illustrated newspapers and magazines tended to make more professional and flexible use of pictorial material at this time than book publishers, as Paul Steiner (undated, 422) explains in his memoirs. Since the time at the museum in Vienna,²⁶ close cooperation among specialists and experimentation with the processes of conveying information had played a key role at the Isotype Institute, and now fit in well with the developing organizational structures at Adprint. In addition, Foges and his staff cooperated with external serial editors and editors-in-chief of the publishing houses involved, for example in the case of the *Britain in Pictures* series (Carney 1995, 14–17).

²⁶ Teams of scientists, statisticians and other specialists compiled information as part of the "Vienna Method," employing a modernist, clear design under the direction of the progressive graphic designer Gerd Arntz, as was also taught at the Bauhaus with which Neurath was connected. See Galison (1990, 709–752) and Sophie Hochhäusl's chapter in the present volume.

The concept behind Adprint's book publications on general educational topics was clearly based essentially on the interplay of image and text, or rather focused primarily on staging pictorial material for the construction of meaning. In general, the content was created in the course of its conceptualization in the interplay of text and visual design of double pages as smallest units up to longer sequences within the book. The types and formats of images for the respective publication were combined with units of text that could take the form of main, special or image texts. Comprehension of the content was therefore no longer bound to the text alone. Germano Facetti, as art director for Foges and later as the designer responsible for reworking the *Penguin Classics* series, described the works produced by Foges and integrated books in general as follows: “The flow of images, captions and diagrams was planned like a documentary film; but unlike a film the book could be opened at any page to provide leads onward and backward in the text [...] the images and the graphics follow a track where the essence of the text is underlined [...] in ‘close-ups’ enhancing the art works and in ‘sequences’ integrated in the text” (Facetti 1964, 53, 57).

The influence of this new and variegated media, which according to Neurath could be used most effectively for transferring knowledge, was now clearly evident when different media and presentation techniques were used. “It is manifest how fruitful a film presentation may become if it intentionally combines documentary and diagrammatic techniques, just as a book can combine photographs and diagrams with the text” (Neurath 2010, 120). While a close connection between text and image on double pages and over longer sequences was a distinctive feature of many of Adprint publications, the image material itself could vary – from photos and maps to pictograms and art reproductions.

Adprint was very successful in the UK book market and worked with publishers such as Collins, Hamlyn, Harrap, Muller, Pitman and the UK Ministry of Information (see Lambert 2009, 114). As Jim Aulich (2012, 343–366) explains, it was the contemporary combination of affordable but visually innovative and high-quality books that made Adprint an interesting business partner, particularly for the Ministry of Information – and especially with regard to positive propaganda on “mutual understanding” amongst the Allies against National Socialism. With the support of the Ministry of Information, the book series entitled *The Soviets and Ourselves* and *America and Britain* were published by G.G. Harrap and distinguished themselves with elaborate color prints of Isotype graphics and photographs. Their covers were designed by the German artist John Heartfield (né Helmut Herzfelde), a pioneer of photomontage, among others.

The special style of the books developed by Adprint was regarded by the British book trade as belonging to the German-language book culture, for example in the tradition of the Bauhaus Verlag (publishing house) (see Nyburg 2009, 226). However, the actual design of the individual series varied from case to case: the modern, diversified publications which were made in collaboration with the Isotype Institute and which could be produced particularly elaborately thanks to the support of the Ministry of Information, stood out in the field (Burke, Kindel and Walker 2013, 360). But continuous improvement of the quality of images under the direc-

tion of production manager Walter Neurath also affected the overall impression of other series. However, the scope for content and design was limited not least of all by factors such as paper shortages, high overall production costs for color prints and an inadequate production infrastructure in the UK (see Hogben 1949, 262; Kinross 2010, 120–145; James 1999, 371–377). After Otto Neurath's death, Foges continued to produce books with Marie Neurath and the Isotype Institute, especially for children and young people (Walker 2013). He continued his activity as a book producer and founded a new book packaging company called Aldus Books Ltd., which worked together with houses like Doubleday in New York (Lambert 2009, 116f.).

Walter Neurath, who played a major role in many of Adprint's successes, founded his own publishing house in 1949 with Eva Feuchtwang whom he would later marry. Over the decades to come, Thames & Hudson became an international leader in the art and culture sectors (Rosenthal 2009, 111–122; Fischer 2011, 227f.). Here, too, the principle of democratizing art books continued to yield mass-produced but inexpensive works of high quality. The same applied to art books from Phaidon Press, another house founded by German-speaking emigrants in England (Fischer 1999, 289–309). But unlike Phaidon and similar publishers, Thames & Hudson used as many color illustrations as possible, which were presented in the integrated layouts already developed and proven by Adprint. The rising demands on print quality and the greater number of color illustrations were financed by a system of international co-productions perfected by Walter Neurath, which spread the production and printing costs as well as the financial risk across various publishing houses (Craker 1985, 9f.). This enabled long print runs, which in turn lowered the production price per copy. As a consequence, book concepts and designs had to be developed to enable extensive international compatibility among texts and illustrations. Foges had already striven for this type of international distribution and cooperation by establishing a branch office in New York, but was not in a position to achieve these goals until after the war (Lambert 2009, 118). Thames & Hudson, by contrast, began in the 1950s under completely different conditions. It enjoyed increasing political and economic stability in a society with growing purchasing power and a consistent demand for illustrative book formats, including high-quality color prints.²⁷

As the book trade acquired greater degrees of internationalization, the combination of proven design and production principles with a range of topics suitable for international distribution proved to be sustainable over the long term for popular illustrated works of non-fiction – as perfected for art books at Thames & Hudson and by Foges' partner Paul Steiner at Chanticleer Press in the USA, for which space

²⁷The effects of these correlations on book production conditions can be seen in the business correspondence between Adprint (in particular Wolfgang Foges and Walter Neurath) and Otto Neurath/Isotype. It is housed in the Isotype collection at the archive of the Institute for Typography and Graphic Communication at the University of Reading, UK: Isotype Collection 1: Isotype Institute Correspondence (1941–1945). See also Eve (2009) for difficulties in the cooperation after Otto Neurath's death.

considerations here prevent further elaboration.²⁸ In Germany, some books by Foges and especially those by Thames & Hudson and Paul Steiners have been published very successfully by Droemer Knauer in collaboration with the publisher Willy Droemer as *Bildsachbücher* (illustrated non-fiction books),²⁹ and this production and distribution model has survived internationally to this day.

17.3 Conclusion

Even in exile, Neurath continued to study potential new methods of transferring knowledge in science and society. These efforts gained a new dynamic in his exchange with the philosopher L. Susan Stebbing, as can only be touched on in this article. In combination with the tried and tested transformation of visual data into a densely woven “picture-text style,” the logical principles of the subsequent critical examination of common language became an additional means of making knowledge content available to a mass audience for Neurath. Against the background of his theoretical examination of the historical development of visual communication, this was intended to broaden the possibilities of purely linguistic transfer of knowledge toward a more structural-contextual understanding of content that could also keep pace with the diversification of media in books at the time. Conscious and careful handling of the selection of information and of the choice of language, such as the avoidance of technical terminology, was directed against the inappropriate and popularizing simplification that both Neurath and Stebbing condemned. Both demanded a respectful and serious approach to the transfer of knowledge in order to strengthen judgment and logical thinking on the part of the “common reader” as a prerequisite for social participation in modern democracies. Education and training were therefore not understood as simply passing on information, but rather were associated with the ability to think, analyze and argue in structured ways.

As of 1941 Neurath pursued this approach by further developing the “picture-text style” in publication projects with the book packager Adprint. The resulting so called integrated layouts were an overall attempt to develop book series in cooperation with image and text editors, graphic designers, authors and photographers, forming an argumentative syntax of information in terms of content and physical integration. The idea that this should not be a “naïve” objective but nevertheless appropriate reproduction of knowledge was already evident in the self-image and differentiated processes of selecting and transforming information which were also fundamental to the creation of ISOTYPE symbols. As Neurath (1939, 7) wrote, “How can facts be presented without causing confusion by their overwhelming

²⁸ See Fischer (2011) and Körber (2014) for further information on Paul Steiner.

²⁹ As stated in the publisher’s autumn 1961 programme, the “new book type” was a “requirement of the times:” the illustrated book of the past was no longer sufficient; a new, closer connection between images and words was to be created, a new type of *Bild-Band* (picture book) which was also non-fiction. See *Droemer Gesamtkatalog* (Autumn 1961, 3f).

diversity? The visualization of selected primary material connected with simple statements is one solution. Even such ‘selection’ influences readers in a certain direction, but one can interpret the same facts in different senses and augment them.”

This approach to book design differed markedly from that of non-fiction volumes that conveyed their contents primarily through text accompanied by a few secondary illustrations. Via collaboration between ISOTYPE and Adprint and their successors, these ideas and concepts found their way into the practices and methods of structuring and systematizing text and images in the illustrated non-fiction book genre – a development that can only be hinted at here. While individual elements of visual design and content structure were not in themselves innovations in book production, the systematic approach and the exploitation of new technical possibilities for more cost-effective and therefore mass reproduction and printing technology must be seen as influential for modern, highly visual book design.³⁰ As has been noted on numerous occasions, these possibilities were assessed by a generation of German-speaking emigrants in the twentieth century for a new culture of visualizing information in the Anglo-American book market.³¹ The aim was to reconcile the strong socio-political awareness, pedagogical goals and influences of the new visual mass culture. Especially in the field of conveying information for general and further education, the “picture-text style” for books was to no small extent a material expression of changing cultural techniques and concepts of knowledge in response to political and social crises and upheavals of the time.

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³⁰ See James (1999); Fischer (2003); Kinross (2009), Lambert (2009); Nyburg (2009).

³¹ See e.g. Kinross (2009) and Abel – Graham (2009).

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