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OTTO NEURATH

ECONOMIC WRITINGS

SELECTIONS 1904–1945

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EDITORS' AND TRANSLATORS' NOTE

In the interest of readability, stylistic features of the original texts that would appear eccentric and distracting in English have been removed. Neurath's paragraph divisions have occasionally been regularised in accord with the steps of his reasoning. His sometimes extremely liberal use of *S p e r r u n g e n* (a functional equivalent of italics) has been largely edited. In supplying references sparingly Neurath followed the standards of his day; where these references are significant, they have been completed as far as possible. Obvious mistakes have been silently corrected. Square brackets in the text or in the notes indicate insertions by the editors. For remarks about the dialectical context of the selections, readers are referred to the Introduction. In their selection of the chapters the editors followed, as far as was practical, plans for this volume as devised by Marie Neurath, who also provided first drafts for several of the translations featured here; however, the editors also dropped some chapters or substituted others and supplemented the selection with additional materials. It is to the memory of Marie Neurath that the editors dedicate this work.

THOMAS E. UEBEL

INTRODUCTION: NEURATH'S ECONOMICS IN CRITICAL CONTEXT

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There are many ways to read a characteristically contrapuntal writer like Otto Neurath – and many ways to misunderstand him by taking the part gleaned for the whole. Of none of his varied fields of activity is this more true than his writings on economics. On their account – and on account of his attempts to put his ideas into practice – he was called conflicting names already in his own day: appellations ranged from "romantic" to "fanatic", from "communist" to "bourgeois", from "fool" to "visionary".[1] Here the task cannot be to assess these judgements but only to furnish a framework that highlights the lasting interest of his work in this field.

Like Neurath the philosopher, Neurath the economist can lay claim to the title of neglected pioneer. His claim to historical importance in economics is enhanced by the undiminished relevance of a consequential though deceptively simple thought that lies at the centre of his wide-ranging but less than fully systematic work in the field. Starkly put, Neurath was an 'Austrian economist with a difference': his training as

a historian and sociologist and his later turn to socialism are but part of a complex background and development. Sharing the Austrian school's rejection of what was to become orthodox neoclassical equilibrium economics, Neurath also rejected what the Austrians shared with the neoclassicals and returned to Aristotle for his broad construal of the economic domain. His deceptively simple thought was that economic decisions, like many others, are judgement calls comparing expected outcomes between sets of irreducibly incommensurable measures. Only fragmentarily realised during his lifetime Neurath's economic thought points to ongoing attempts in our own time to manage the economic forces at the disposal of humanity for its benefit. But Neurath's economics are significant also for a second reason, one that is marked by the series in which the present volume appears. An understanding of Neurath's work in economics – and social science more widely – is essential if our judgement of the role of Neurath in the Vienna Circle and of the achievement of his contribution is to be a well-rounded one: with some discretion, we may regard it as a test case for his physicalist encyclopedism, the 'pudding' proving his recipe for unified science.

The aim of the present volume, accordingly, is fourfold: first and second, to document both the breadth of Neurath's work in economics and social science as well as the development of his interests and views from his student days in Vienna to his last years in Oxford; and, third and fourth, to highlight those aspects of his work that link up most directly with his work in philosophy of science generally as well as some of those aspects that are likely to be of greatest economic relevance today. Needless to say, different selections address different parts of this agenda. One consideration that has informed the editors has been to provide a historically salient and systematically coherent set of his social scientific writings – without duplicating pieces already translated elsewhere (all of them except for *Foundations of the Social Sciences* appearing in three other volumes of the present series). Hopefully, this constraint has been turned into an advantage. Important aspects of his work and significant statements elsewhere but relevant here are specified in this Introduction.

The selections from Neurath's economic writings are grouped in four parts, with a partial overlap of topics and chronology. Part 1 features Neurath's work from 1904 to 1917 as an economic historian of antiquity and his historical and empirical study of war economics, leading up to the threshold of policy advice for the anticipated peacetime economy.

Part 2 presents Neurath's metatheoretical reflections about social science from 1909 onwards, issuing in his development of an alternative conceptual structure for economic inquiries in 1917. Part 3 presents examples of Neurath's contribution to the post-World War I socialisation debates in Germany and Austria, employing his conceptual innovations in a practical-political capacity in the period 1919–25. Part 4 gathers together later reflections from the 1930s and '40s on the issues of planning and democracy, on the predictive aspects of empirical social science and its descriptive-critical potential as part of the unified science programme of logical empiricism, and, in his last ever piece, on the fate of the movement of logical empiricism itself. In this Introduction, after giving a general overview, only background information for the individual pieces selected will be provided and some interpretive questions will be raised, but no final assessment will be given.

1 Contextualising Neurath's Economic Writings. Otto Neurath (1882–1945) is well known as a founding member of the Vienna Circle, one of several points of origin of logical empiricism.[2] While Neurath's distinctive contribution to the philosophy of science and epistemology in general has come to be recognized after long neglect, his economic thought remains relatively unexplored.[3] A striking fact is thus obscured: Neurath is furthest from the 'positivist' economist one might be excused for expecting.[4] Following an overview of Neurath's project as a philosopher and economist, this section outlines further the unifying framework of his economic work, its continuing relevance and its many-layered background.

1.1 Otto Neurath: Philosopher-Economist. Consider first Neurath the philosopher. While Neurath is by no means the only one to have received extensive critical attention, it is he who held the most surprises in store for recent students of the Vienna Circle. Neurath most strikingly contradicts the common stereotype of the logical positivists. Far from being merely the organisational motor of the Circle's internationalisation in the Unity-of-Science movement of the 1930s and '40s, Neurath has emerged as a philosopher of quite striking originality. Moreover, already in the Circle itself Neurath argued against the failings attested to logical positivism by its external critics, criticising the trend towards seemingly purely logically oriented formal inquiries and the neglect of the social and historical dimension of science. Similarly, Neurath

anticipated the turn towards naturalism, commonly associated with Quine's later internal critique, albeit along different, more social scientific lines.[5]

One central theme – perhaps the central one – of Neurath's philosophy is the absence of epistemic foundations and the irreducible contextuality of knowledge and justification. The continuity of this theme is illustrated by Neurath's frequent employment of the simile which subsequently Quine made common coin: we are like sailors, who have to repair their boat on the open sea, without ever being able to pull into dry dock. Neurath first used this simile in 1913 in a long journal article on the methodology of war economics; he re-employed it in 1921 in the course of his critique of Spengler's *Decline of the West*, then in 1932 in the protocol sentence debate with Carnap and Schlick, again in 1937 in the course of promoting the project of the International Encyclopedia of Unified Science, and finally in 1944 in conclusion of his last monograph on the methodology of social science, having just (re-) issued the call for a reflexive theory of science, or, as one commentator calls it, a "reflexive epistemology".[6] Throughout, it is to be noted, the boat simile expresses also a certain constructivist impulse. Knowledge is gained and justification assessed by tools which we ourselves have created.

Like his colleagues in the Vienna Circle – and, it has to be added, like a few of the "school philosophers" he opposed (Cassirer springs to mind) – Neurath sought to comprehend the upheavals in the scientific understanding of the world which the preceding turn-of-the-century and the first decade thereafter had initiated. Neurath explored ways of overcoming the dilemma of foundationalism or relativism, which only grew more intense as the 20th century grew older, but whose roots – and whose pseudo-solutions which waylaid progress all along – he had discerned early on. Neurath's distinctive answer consisted in exploring a guiding idea which may be put as that of a "controllable rationality". Neurath took the old enlightenment idea of scientific knowledge as liberator from the reign of dogma and prejudice and soght to import it from the domain of the natural sciences, the natural world, to that of the social sciences, the social world. (This is not to say, of course, that Neurath believed that science could tell us what "ought to be done".) What allowed science to serve as liberator was its empirical method, its reliance on intersubjective evidence and the adjudication of theory acceptance in its light. This method, so Neurath, was not simply given to

us but had been historically developed. The task that he saw facing him was to investigate the conditions under which it was possible, in science, to exercise something like "conceptual responsibility by collective management".

The later Neurath was something of a constructivist therefore, but not a constructivist on the object level, but on the metalevel of epistemological reflection. Scientific knowledge does not simply "flow from its subject matter", as he already urged in his revealing review of Carnap's *Aufbau* (1928b). Importantly, it was not the objects but the standards of cognition that were to some degree socially constructed. Neurath's sketches of a non-reductive physicalism and a non-dogmatic scientific "encyclopedism" – his alternative to the orthodox hierarchical model of the unity of science may be deemed a version of the "patchwork" conception[7] – stressed not only the hypothetical nature of science but also its creative aspect. He saw it as a creation that was negotiated in the collective of scientists so as to answer to criteria of acceptance both internal and external to science itself, criteria which in turn were not pre-given but (ideally) arrived at in collective work and reflection (and which had to be periodically reassessed if one did not wish to run the risk of dogmatism).

The project of Neurath's philosophy, it is plain, is not one which we can declare to have been already completed either by himself or by others who, needless to say, added much needed detail to his bold sketches. Indeed, there is reason to believe that the very "project of modernity", of which Neurath's efforts may count a part, is not such as to allow for completion. The philosophical task which Neurath confronted still confronts all of us. Philipp Frank – fellow member with Neurath not only in the later left Vienna Circle, but also in the precursor of the Schlick circle before World War I, the so-called first Vienna Circle[8] – characterised the situation in exemplary form in his obituary for Ernst Mach. Critical enlightenment thinking uncovers illegitimate uses of merely auxiliary concepts and "destroys the old system of concepts, but while it is constructing a new system, it is already laying the foundation for new misuse. For there is no theory without auxiliary concepts and every such concept is necessarily misused in the course of time." It follows that "in every period a new enlightenment is required in order to abolish this misuse" (1917 [1949b, 78, 73]). What Neurath opposed as "pseudo-rationalism" in fellow philosophers was precisely such misuse, suggesting proof where there was but judgement (1913d).

Pseudo-rationalism was, in short, the counterimage of his own epistemological simile of fallibilist anti-foundationalism at the object-level paired with constructivism at the methodological metalevel.

Consider now Neurath the economist. Returning to Vienna after his doctorate with Eduard Meyer and Gustav Schmoller in Berlin in 1906, Neurath began publishing widely: from discussions of scientific methodology and epistemology to studies in history of science and in social history; from empirical studies of legislative proposals and accounting procedures to proposals for modern citizens' education and urban transport systems. By the time of his habilitation in Heidelberg 1917, he had published in his own field, besides numerous articles in professional journals and specialist newspapers, a monograph on the economic history of antiquity and an introductory textbook in economics, having also co-edited (with his first wife Anna Schapire) a comprehensive anthology of readings in the history of economic theory; most importantly, however, he had developed 'war economics' as a separate discipline demanding new tools of analysis. Empirical research during the Balkan wars and his experience with the Austrian and German war economy confirmed his decision to explore the concept of a central administrative economy with planning in kind. This research focus led him to propose a reconceptualization of economic science itself – away from the preoccupations of both Austrian and Marxian value theories and the emerging neo-classical paradigm. After the war Neurath intervened in the debates on the nature and extent of the possible socialization of the postwar economy and participated in the Bavarian revolution, attempting to put his ideas into practice. Barred from academia because of his conviction for these activities, Neurath increasingly turned in the 'red Vienna' of the 1920s and early 1930s to developing innovations in visual pedagogy (the ISOTYPE system of pictorial representation of statistical data) and pursuing his anti-foundationalist campaign in the philosophy of science and the organisation of the unity of science movement, only occasionally restating his economic ideas.[9]

As an Austrian, having taken his doctorate with the leading figures of the German Historical School, Neurath hit upon a unique solution to both the *Methoden-* and the *Werturteilsstreit*. Abstract deductive theory can be used to enlighten historical problems and the productivity of an economy (as opposed to the profitability of a firm) was assessable in terms that respected Max Weber's strictures on value-statements in science. The price was radical reconceptualisation. Neurath rejected

Menger's Aristotelian essentialism, Schmoller's inductivism and Weber's ideal-types and adopted an instrumentalist conception of economic theory derived from Mach, Poincaré and Duhem; simultaneously he sought to redirect economics from price theory to investigations of how socio-economic institutions affect wealth understood as well-being, working towards a theory of relevant indicators and developing increasingly complex representations of the conditions under which a transfer of goods can be said to increase the welfare of those involved. Due to the minimal assumptions of these calculi, only ordinal rankings are possible and even these are not always complete. In consequence, no unique welfare function is computable (sometimes even for an individual). Moreover, without money as a universal value indicator there is no unit of calculation by reference to which different ensembles of transfers of goods could be measured for their optimality. Multi-criterial forms of representation are needed. With an economy understood as a function from "conditions of life" (*Lebenslagen*) to "qualities of life" (*Lebenstimmungen*), i.e., from objective natural and social conditions to subjective experience, Neurath's economics investigated "correlations between different orders of life (*Lebensordnungen*) and conditions of life". All along, Neurath stressed that many decisions about the allocation of resources, even more so decisions between entire life-orders (systems of rules for goods transfers under given conditions), required judgments for which no scientific calculation could substitute.

This was the methodological background for Neurath's idea of socialisation as the reorganisation of the economy "by society for society" by means of an economic plan. Roughly, a nation's entire economy was to be organized in terms of industry-wide producers' associations who received directives from a "central economic administration" for the production of certain kinds and certain quantities of goods. This plan was based on a "universal statistics" compiled from reports of the central bank and the industries, as well as economic control councils, of social demand and available supply of consumer goods and of production goods and means. It is important to distinguish the organisational from the calculatory aspect of his socialisation models and to note the self-conscious but problematical lacuna of the political. Neurath's conception of command economy is distinct from the Soviet models, comparison with which it readily invites. To be stressed is the distinction, underlying his work but not always clearly enough stated, between directive and indicative planning. Directive planning sets the goals, the

plan of an economy, which must be fulfilled; indicative planning explores what kinds of economies or production plans could be developed and provides models for orientation. Neurath's "central economic administration" served both functions, but they can and need be separated, for this central agency did not act autonomously. In its directive function it was subject to the political decision of the "people's representatives" of which plan to realise; only its indicative function was wholly entrusted to this agency. Neurath left open the question of political power in his "socio-technical" schemes as lying outside his remit. Notably, however, Neurath also left open how the different sectors of the economy were organised locally and did not require wholesale nationalisation, also allowing for anarchist collectives and workers' cooperatives.

Neurath soon faced criticisms of the method of calculation-in-kind raised by Max Weber, Ludwig von Mises and Friedrich August von Hayek, that there cannot be rational economic calculation in the absence of the unit of money and the profit motive.[10] Neurath remained remarkably unmoved on this point. Defending his conception against Marxist, Austrian and neo-classical critics, he insisted that they themselves had to admit the insufficiency of monetary calculations for decisions concerning economic policy. The multi-dimensionality of welfare could only be approximated by the further development of sets of indices for standards of living, sets which ultimately were envisaged also to account for the freedom experienced in these social orders. Until quite recently, professional economists – with the notable exception of the Dutch planning theorist Jan Tinbergen – neglected Neurath's work.[11] When viewed in conjunction with his concern for a new empirical base for an economics of welfare, however, it becomes clear that Neurath's resistence to the Weber-Mises-Hayek objection(s) chimes with important present-day efforts: his very own "rational economics" was to open up for investigation just those types of considerations that cannot be taken account of by restricting our concern to *homo economicus* or what Amartya Sen called "rational fools".[12] But it is not just the narrowly individualistic orientation of standard economic conceptions of utility maximisation that Neurath objected to. What makes for the noted simple but consequential thought that vouches for his continuing relevance – attested to by ecological economists like Juan Martinez-Alier and philosophers like John O'Neill[13] – is the observation that this utility maximisation cannot be be effected by a calculus that has rendered commensurate a plurality of values.

1.2 Heterodox Neopositivism in Political Economy. It is apparent that there exists a remarkable convergence between Neurath's work in economics and social science and in epistemology in that in both he opposed pseudo-rationalism and sought to counteract its deleterious influence. Second, just as his radical antifoundationalism rendered him a heterodox neopositivist, so his political economy was traditional in a sense which orthodox economics largely rendered anachronistic: Neurath was an economist not concerned with the market and the determination of prices, but with social welfare in the sense of national real income, its production and distribution. His early work in economics and social science shows well the dialectic between object- and metalevel issues that propelled his development. Neurath's Aristotelian concern with wealth and welfare at the object level required grounding in metatheory: how was scientific concern with welfare to be conceptualised, indeed, how was welfare itself to be conceptualised and best theorised about?

Of course, the trajectory of Neurath's development was not quite as innocent as this makes it sound, for he did not start with a neutral conception of welfare, as it were, and only later realised its inadequacy. Already from the works of his father Wilhelm Neurath, an economist who developed radical but non-socialist reform proposals, he was familiar with a searing critique of the neo-classical concept of marginal utility. His father's critique was based not on theoretically immanent but extraneous grounds, however: that this concept of economic value sanctioned the destruction of goods not sold in the market while there remained want of and need for these goods on the part of those unable to participate in the market rendered the concept simply "absurd".[14] Whether Otto Neurath approached economics from the start with a similarly intuitive conception of use value and welfare is not clear, but something like it certainly seems to have been the motivation for his inception of war economics by 1910. Now Neurath was no war monger. Rather, he noted that in war the satisfaction of certain needs was given primacy over the demand for profit: war economies happened to provide, as it were, laboratory conditions for contemporary forms of a use-value oriented approach to economic organisation.

But while Neurath did not start out as an economic liberal, neither did he start out as a Marxist, but only became one at the end of World War I.[15] Neurath always approached economic problems primarily as technical problems: it was not by coincidence that he considered

himself a "social engineer". His view that the reorganisation of social production was more important than the expropriation of the means of production earned him the endless scorn of Marxists. (At his trial in Munich no other than Otto Bauer attested to his "essentially unpolitical trend of thought".)[16] Yet his experiences in the failed revolution did teach Neurath the indispensibility of party-political backing for social reform and he became a loyal member of the Austro-Marxist Social Democratic Party. The lacuna of the political in his socio-economic thought was only gradually reflected upon, increasingly so as the chances for the realisation of his socialisation plans became ever smaller. Reported to have been described by his widow as a "mild liberal" in his final years in exile in England,[17] his thought turned to the question of what created and sustained the conditions for social and political tolerance, in particular, to what the conditions were for agreement that tolerated dissent yet did not debilitate significant action.

So if in consequence of his object-level concern Neurath came to reject the conception of economics as a universal deductive science in the fashion of Carl Menger and his followers and took on board some of the particularism associated with the German Historical School, he nevertheless remained an Austrian economist in another respect. As Erich Streissler has noted, one feature that unites all economists of the Austrian school and distinguishes them from their predecessors – though not, as the price of their success, from their epigones – is that they were decision theorists. Ever since Menger, Austrian conceptions of economic action essentially involved choice between alternatives, a choice that was, as Friedrich von Wieser insisted, to be calculable in terms of value and already with Eugen von Böhm-Bawerk appealed to expected utilities.[18] Quite clearly, not only Mises, Hayek and Schumpeter but also Karl Menger (son of Carl and associate of the Vienna Circle) and Oskar Morgenstern stand in this tradition linking Austrian economics to modern rational choice theory.[19] Neurath too stands in this tradition, even though he rejected some of the strictures laid down by Menger and Wieser and accepted by their students. Like them, his thought centered on economic decisions, the allocation of resources to alternative uses, but unlike them he viewed these decisions as irreducibly multi-dimensional and so resisted the demand to commensurate to facilitate calculation. Neurath questioned the way the rationality of the economic decisions was conceived of in the Austrian and the emerging neo-classical school.

His call for an "economics in kind" (*Naturalwirtschaftslehre*) did not envision just a theoretical proposal for instituting a moneyless economy (*Naturalwirtschaft*), but ever more clearly constituted a sustained protest against a basic presumption widespread amongst economists. This was that unless an economic decision was taken in terms of maximising money value it lacked any discernible rationality or, more broadly, that unless a complete ranking of expected outcomes was provided the reasoning was faulty. For Neurath economic rationality was not absent unless decisions were expressed in terms of a money calculations, it was also discernible in in-kind considerations. That was what his explorations of in-kind calculi were intended to prove. Moreover, not only was the exclusivity claim of the standard conception of economic rationality mistaken, the standard conception itself was open to the charge of pseudo-rationalism. In rendering all aims and values commensurate by demanding that they be expressed in money values by hook or by crook (i.e. shadow-pricing or contingent valuation), the standard conception suggested an inevitability and finality to its calculations and the decisions taken on their basis which ill fitted the situation at hand which demanded judgement about and evaluation of incommensurable values.[20] As will be noted in greater detail below, it may be that Neurath himself came to realise only gradually where the strength of his argument lay: not in the plans for total socialisation and economies in kind, but in his insistence on the concrete nature of the economic decision situation which rendered deeply problematic the abstraction of a universal unit of calculation. That the real force of his argument may not have been appreciated fully from the start does not, of course, lessen its significance or the validity of its advocacy – though the historical reconstruction must proceed with some delicacy.

As noted, Neurath provoked the socialist calculation debate which, however, soon eclipsed himself and brought to centre stage the arguments of Mises, Weber and later Hayek in defense of the free market. It was against them in turn that the arguments for so-called market socialism were developed, in the United States and Britain, as early as the late 1920s and 1930s by, amongst others, Fred Taylor and Oskar Lange and as recently as the Reaganite and Thatcherite 1980s, albeit in a much reduced form as far as central planning is concerned.[21] If today we are somewhat better informed about what advantages a market economy does and does not possess, it is due in part to the stimulus of Neurath's early socialisation plans. A more durably 'positive' aspect of

Neurath's originality as an economist is provided by his early ventures into the field of ecological economics. His simple but weighty point was that disregard of the so-called externalities of market activity does not only become extremely costly to succeeding generations, but that the very accounting of environmental cost and benefit in terms of a universal money unit misses the ultimately political, ethical and individually prudential aspects of the decisions to be made. For these decisions no calculus can be substituted because multi-criterial choices do not guarantee determinacy in comparative assessment that extends to a consistent ranking of all alternatives.[22]

Already in virtue of these aspects of his work Neurath must be considered one of the more important political economists of the 20th century. In his *Modern Man in the Making* (1939) he noted the ever increasing rationalisation of production and standardisation of behaviour the world over, processes nowadays viewed as aspects of "globalisation". A confirmed modernist, Neurath took this as given, but he was by no means blind to its dangers. His plea for "economic tolerance" (Chapters 6 and 12), first issued in the Munich revolution against the exclusive rule of state-run industries and enterprises under socialism, has lost none of its urgency in the present era of unfettered free market expansion.

1.3 Living the Foundational Debates in Social Science. Given his aforementioned contrapuntal style, Neurath's writings are best understood when they are re-contextualised in the debates from which they stem: this holds for the social scientist no less than for the philosopher. As the former Neurath had to face the various disputes amongst historians, political economists and sociologist that defined the field in the absence of well established and already widely accepted paradigms.[23] Neurath's views on economics took shape and altered in the course of his participation in these methodological debates. Here it is profitable to consider six of them.[24] To see them in concert, think of them as defining Neurath's past (where he 'came from'), his present (debates he helped shape) and, as it were, his future (his legacy).

We can see better where Neurath 'came from' by placing him in three famous turn-of-the century debates in the foundations of social science: the *Methodenstreit*, the *Werturteilsstreit* and the historians' dispute. These debates possess origins that long preceded Neurath but nevertheless still allowed him to define his social scientific identity in their

terms. Intermixed with these methodological disputes is a related but more substantively first-order issue that remained alive throughout his career: the dispute about the nature of economic value. In addition, Neurath's social scientific 'present' is represented by two debates that he himself helped to shape: the socialisation debate and the unified science debate. Finally, Neurath's 'future', his legacy, can be discerned in the ongoing development of adequate sociological indicators of well-being and in the foundational debate in ecological economics about comparability and measurement of environmental cost. (Fittingly, these debates stretch from the 19th to the 21st centuries.)

The *Methodenstreit* was a dispute that raged from the 1880s onwards between Gustav Schmoller, leading light of the German Historical School of economists, and Carl Menger, founder of the Austrian school of theoretical economics, and their followers, and concerned the very nature of economics as a science, in particular the range of validity of its laws and the relevance of inductive generalisations for economics.[25]

The *Werturteilsstreit* was a dispute in the Verein für Sozialpolitik (Social Policy Association) that had been simmering since the 1890s but exploded around its conferences of 1909 and 1913 and concerned the probity of value judgements in social science. It tended to divide Schmoller's older generation of paternalistic "socialists of the chair" (whose 'socialism' in most cases was exhausted by merely taking seriously the 'social question') from the younger generation of the Association's members, represented by Max Weber and Werner Sombart, who rejected the claim to issue unqualified normative judgements under the guise of science.[26]

The historians' dispute was a dispute periodically reignited about the explanatory principles of historiography and the possibility of history as a positive science of cultural development. Just as Droysen had rejected Comte and Buckle in the 1860s, so the German historical profession turned on Karl Lamprecht's ideas for a cultural history in the 1890s to uphold the primacy of the narratives of nations and great men. As Lamprecht capitulated under the charge of materialism, subsequent social historians were under considerable pressure to explain themselves: so-called economism was rejected both for its supposed reductionism and frowned upon for its common political associations.[27]

The methodological debates of the economists also had a substantive complement: just how was economic value best thought of?

Was economic value an 'objective' notion, as the classical economists Smith and Ricardo and still Marx thought in different ways, or was it a 'subjective' notion, determined only relative to people's needs or wants or estimations, as the neo-classical and Austrian schools of marginal utility held? Besides furnishing a lasting topic for academic discussions of the validity of socialist theory, this debate also provided a forum to clarify the neo-classical and Austrian alternatives.[28]

The first of the debates that Neurath himself helped to shape arose in close connexion with the issue of the nature of value. This was the socialisation debate in post-World War I Germany and Austria. Provoked by an apparently successful revolution (albeit in conditions of national military defeat), this debate concerned the issue of the way in which the new post-war economy was to be reorganised along socialist lines. As the possibility of realising any of the plans proposed receeded in Central Europe, the socialisation debate as just described was overtaken by the so-called socialist calculation debate about the very possibility of rational economic decision in planned economies.[29]

The other contemporary debate that Neurath helped to shape and that is of interest to us here concerns the nature and standing of the social sciences in comparison to the natural sciences. This is the 'unified science debate' about, first of all, the rejection of the claim that the social or human sciences (*Geisteswissenschaften*) were sharply separated not only in domain but also in general method from the natural sciences, typically with 'understanding' (*Verstehen*) furnishing a supposedly unique and ontologically significant method of social scientific investigation. This debate pitted Neurath against the tradition of Dilthey and the Neokantians and important contemporaries like Weber.[30] Another aspect of this debate concerned the meaning and plausibility of 'physicalism'; here as well Neurath was often misunderstood as more reductionist than he intended to be.

Finally, Neurath's 'future' can be traced in ongoing debates and developments in the fields of empirical sociology, of social choice theory and of ecological economics. Something like Neurath's concerns are discernible – generally without reference to his earlier efforts – in the ongoing programmes to develop a set of adequate social indicators, measures of real income and national welfare, beyond the ambiguous measure of gross national product and in efforts to accustom the economic profession to making do with merely partial orderings of available alternatives.[31] In addition, Neurath's already noted legacy for

ecological economics is to have placed squarely into focus the reasons for an affirmative answer to the question: do decisions concerning environmental disputes require judgements about conflicting claims of incommensurable values, values that resist commensuration in the money calculus?[32]

Few conceptual or methodological issues in social science are left untouched by any of these foundational debates which concern either the nature and justification of social scientific concept formation and generalisation or the normative status of social science and its objectivity claim as such. Significantly, these were not classical debates but live disputes for Neurath. All of them are touched upon in the selections in this volume and, with the exception of the unified science debate, are dealt with extensively. (The dispute about *Verstehen* forms a central part of Neurath's programme for physicalist unified science and his naturalistic programme in epistemology and is already addressed by contributions in Neurath's *Empiricism and Sociology* and *Philosophical Papers*.)[33] The historians' dispute provides an important part of the background of the earliest papers in Part 1 below, while the political economists' *Methoden-* and *Werturteilsstreite* furnish large parts of the background of the papers in Part 2. Various aspects of the dispute about the nature of economic value, meanwhile turn up in papers in Parts 2, 3 and 4. Part 3 also documents Neurath's stance in the early Austro-German part of the socialisation and socialist calculation debate, while Part 4 also presents the later Neurath's considerations of the issues raised there and of the problem of appropriate indicators of welfare and the logic of welfare decisions.

2 Parts 1 and 2: Neurath's pre-1919 Economic Writings. Parts 1 and 2 contain writings from 1904 up to 1917. They take us from Neurath's reception and participation in the turn-of-the-century disputes to the very threshold of his interventions in the socialisation debates dealt with in Part 3. Here we give some more background and ask: how did Neurath respond to the issues that dominate the *Methodenstreit*, the *Werturteilsstreit* and the historians' dispute? Moreover, is there discernible a distinctive answer of his to the longstanding issue of the nature of economic value?

2.1 Turning to History for Systematic Reasons. Let us set the scene close to the beginning. We can get a good sense of what mattered

for the early Neurath, and why, by considering the biographical and intellectual context in which Chapter 1, "Interest on Money in Antiquity" (1904a), originated. In a letter of 1942 to his son Paul, Neurath described how he became a social scientist.

> That is a long story, but I would say: partly by chance . . . During my studies in the natural sciences I was also interested in other areas and by chance I wrote a seminar paper on money interest in antiquity, a topic I was interested in due to your grandfather's theories about monetary interest. Tönnies (Kiel) suggested that I continue my studies with Eduard Meyer and others because I could connect history of antiquity with economics (which was a very unusual combination) because my concentrated work in this field seemed successful . . . it was not my intention to become a social scientist, I only wanted to continue the work which I had begun . . . the problems with which I was occupied were too seductive. (P. Neurath 1982, 230)[34]

It was against the background of an older interest in natural science and mathematics that economic studies claimed Neurath's sustained attention at university. Chapter 1 must be considered a descendent of the seminar paper mentioned. Of interest is not only the topic, but also the historical approach.

As it happens, Neurath's very first publication was a report about the summer academy in Salzburg in 1903 where he first met Ferdinand Tönnies and received his advice.[35] The opening and final paragraphs of this report show clearly how the 22 year-old thought of the 'spiritual situation of his age' and point to the motivation for his turn to history.

> Between 1800 and 1900 a great number of theoretical and practical attempts were made to reach a principled position on the social conditions. There is a desire to understand the connectedness of the social. Problems of a technical-economic nature assume greater importance not only in the field of technology but also concerning issues of the social order and demand a new type of exact scientific investigation. We seek to collect and assess the experiences of the 19th century. The Salzburg Summer Academy presented important contributions to the solution of social questions since it predominantly dealt with issues in social philosophy . . . .
>
> The 20th century takes over longstanding problems. A number of in part very painful experiences lie behind us. Economic atomism has fallen out of favour. What is to take its place is not at all clear. The questions of power and bread are still rarely distinguished. The dreams of free economic associations (*Vergenossenschaftlichung*) are still very vague. That the foundations of the current economic system are faulty is becoming increasingly clear. Everywhere contradictions emerge which are not only of academic import but effect the welfare and suffering of millions. And this provides further strong motivation to help fight as best we can the secret demonic forces that spread death and decay! (1903 [1998, 1 and 7])

Explicitly noted here were the problems of replacing "atomism" in economics, of separating the "questions of bread and power" and determining the nature of appropriate "economic associations" – quite a handful! The question alone of atomism, of what to put in place of the free market doctrine of *laissez faire* Manchesterism (as it was called then), ranged from the philosophical (concerning principles of social organisation) to the practical (what forms of social organisation are workable) with issues in methodology in between (concerning the principle and form of a theory of social organisation). Already, economics stood in the centre of Neurath's attention and a motivation for his turn to history begins to emerge: he was interested in economic history to gain a better understanding of contemporary economic problems.

Notably Neurath considered the 'social question' properly to belong to social philosophy, but already the beginnings of his 'social engineering' approach are in evidence. In pursuit of this approach Neurath was to find two of the foundational disputes mentioned above centrally involved: the *Werturteilsstreit*, insofar as it had to be clarified to what extent normative matters were at issue and how they were to be dealt with (how could political economy be a normative discipline without becoming unscientific?); and the *Methodenstreit*, insofar as the specific nature of economics and social science was at issue (were the laws of economics to be deduced from a priori axioms of rational action in the framework of what came to be called methodological individualism or were the laws of economics but inductive generalisations, domain-bound and non-universal, of social behaviour?).

Since it was not disinterested knowledge that Neurath's *Problemstellung* called for, the question also arises of how he thought interest and value and theory and fact to be related. This question Neurath was to face repeatedly, of course, and still today the issue clouds the understanding of his theory of social science. His considered position was that, depending on one's inclination, the practical end of social science may be that of a better functioning socio-economic organisation. In that way, applied social science depended on unconditional value judgements on part of the scientist involved. But it was not for the theoretical end of research and education to tell us what these unconditional value judgements should say. Besides furnishing explanations and predictions, theory was to provide a survey of possibilities that could be considered better from the point of view of different preferences. According to this conception, the normative disengagement of theoretical science from social practice was compensated for by recognition of

the scientist's role in the selection of problems. Such selection clearly reflected extra-scientific values, but it did not import value-judgements into descriptive science. This differentiation between ends and means and how science relates to either was won gradually and emerged in Neurath's contributions to the *Werturteilstreit* of the Verein für Sozialpolitik (here Chapters 8a and 8b) and his wide-ranging review of Wundt's *Logik* (here Chapter 7). How closely Neurath sailed to the wind can be seen in his projection of the uses of economic science for the reconstruction of the post-war economy (Chapter 6).

Already in 1903 Neurath felt safe to draw one clear conclusion: something was amiss in the foundations of the socio-economic system of his day. To diagnose more precisely what the problem was required that the "experiences of the 19th century be collated and systematically investigated". Since, as Neurath soon noted (1908 [1998, 118]; 1909a, 7), the sciences generally did not develop in a straight path this meant that he could not allow himself to rely on a cumulative idea of scientific progress. The situation was particularly difficult in social science: as an economist he needed to take a position on the *Methodenstreit* (Chapter 7). Once his work got underway, he also recognised that value-relevant problem selection may determine entire research traditions and that a different problem selection required alterations of the conceptual structures of entire disciplines – as in economics (Chapters 9 and 10).

It is not unusual, of course, that to trained readers the first publications of select authors prefigure their life's work, but Neurath's is particularly striking. At the root of his scientific project lay the idea that the socio-economic system of his day invariably incurred crises which unnecessarily reduced the welfare of large parts of the population. This idea had to be grounded by historical and systematic research: was immiseration really inevitable given capitalism? Moreover, this idea called for an alternative to be developed: was immiseration at all avoidable? Not surprisingly, Neurath's historical interest was drawn to the beginnings of capitalism, but already it was prompted by his systematic interest in alternative economic organisations.

Here another foundational dispute was waiting in the wings, the historians' dispute, which involved a number of related but different questions. To start with, the nature of historical agents and social agency was at issue, as was the lawfulness of history itself: were there any laws of cultural development at all? But more still was involved: the possibility of history as a positive science of cultural development.

At the forefront of Lamprecht's concerns stood what nowadays is called social history and what he called "cultural history" (*Kulturgeschichte*). In place of a narrow concentration on political and military events and an exaggerated focus on heroic personalities, cultural history not only stressed relatively neglected areas like economic history, but also considered collectivist phenomena, like the social structures and social movements that it brought to light, as basic to the understanding of legal systems and to political history.[36] The already difficult issue of laws of development further became mixed up with the politically-laden issue of materialism. Thus Eduard Meyer, a leading specialist on antiquity in all of its political, social and economic forms, opposed Lamprecht and similar nomologically oriented approaches to history in a widely read essay. He regarded as impermissible the demand that history had to be conducted along the lines of natural science, for that involved the depreciation of the role of individuals as mere instantiating instances of laws and of the importance of ideas (1902 [1910, 4–5]). Lamprecht's justified protest against Rankean history, which Meyer could have supported given his own way of doing history, came to grief in part over its perceived philosophical allegiances, just as earlier other advances towards cultural history like Eberhard Gothein's (who became Weber's successor in Heidelberg and supported Neurath's habilitation in 1917) had suffered attacks mainly from conservative political historians.[37] Meyer in turn was criticised by Weber, not to defend Lamprecht, but to correct a misunderstanding of the for Weber proper perspective on the historical sciences, namely, Rickert's Neokantianism.[38] Naturally, Weber recognised himself also as a social, indeed cultural historian, albeit not a materialist one as the thesis of his *Protestant Ethic and the Spirit of Protestantism* (1905) makes clear; his works on the history of antiquity nevertheless granted a prominent causal role to economic matters.

Now as someone who, concerned with the social question, turned to history, Neurath was soon faced by the same issues. Just as pursuit of cultural or social history was compatible with conflicting stances towards Neokantianism – Tönnies here serves as a proper contrast to Weber[39] – so such a pursuit did not necessarily endorse claims about historical laws.[40] Neurath's Salzburg report gave prominence to Tönnies' pronouncedly methodological understanding of historical materialism, that "one must always investigate economic conditions" (1903 [1998, 3]) and an anonymous notice of his own *Economic History of Antiquity* stated that it concerned mostly the history of "institutions" (1909).

Fittingly then, Neurath's review of Breysig's *Kulturgeschichte der Neuzeit* (1900–01) expressed sympathy for the new form of historiography that rejected the categorical distinction of natural science and history but kept a clear distance from its nomological wing. Neurath's criticised as "premature" Breysig's view that history consists in the succession of stages of development, an inevitable sequence that is exhibited by all peoples and all parts of a people, but whose stages were experienced by these peoples in very unequal parts (1904b, 166). Though congenial with its emphasis on the totality of social and cultural life within history, Breysig's view was decidedly at odds with the Historical School's emphasis on the individuality of a people's social and cultural development.

Neurath did not reject the idea of a stage theory out of hand, however. The second chapter of his 1906 dissertation "On the Conceptions in Antiquity of Trade, Commerce and Agriculture" presents a taxonomy of logically possible types of theories of history (called "ideal limit forms" (1906–07, 147)) and a brief sketch of their use up to the 19th century. There he simply identified linear, undulatory and periodic variants of the static and the evolutionary conceptions of history and a not further divided anarchic type and outlined how the stage theory might look according to the first two types. Three years later, in his *Economic History of Antiquity*, Neurath noted that historians of antiquity were affected by the dispute between the linear and the cyclical version of the stage theory of history.[41] He supported the view that antiquity possessed many economic formations that were comparable with those of modern times, but noted that such comparability of economic phenomena from different periods and cultures does not yet imply adherence to a cyclical stage conception of universal history. He concluded by distinguishing three periods of economic organisation in antiquity: an original administrative stage, a market economy, and a third which "returned to administrative measures and created new organisations" (Chapter 2). But was this a sequence which every people or culture had to pass through? Neurath noted that while in the East of the old Roman Empire the third stage had led to a bureaucratic system, in the West it had led to fragmentation and a return to smaller economic units. The prospects for a nomological universal history seem dim.[42]

So what did Neurath expect from history, indeed cultural history, when he started out in 1903? What historical facts other than large-scale laws of historical development might illumine the 'social question'?

Neurath is likely to have pointed to history instead as a large-scale social scientific laboratory. In history a variety of social and economic institutions have developed and thrived or perished under varying conditions. History can teach us, for instance, which institutions worked well under what conditions. Moreover, since Neurath had learnt from Mach's *The Science of Mechanics* that the history of scientific concepts held the key to their proper understanding, it was not difficult for him to extend this moral to the concepts of social science: this meant investigating the history of social science and social thought generally.

Yet one other point deserves mention here. Neurath names as "the founder of modern economic history of antiquity" the philologist August Boeckh, author of a study on the political economy of ancient Athens "distinguished especially by its comprehensive use of Greek inscriptions" (1909a, 4; cf. Chapter 1). Nowadays Boeckh, "who stressed the encyclopedic character of philology and was creative in the most different fields" (ibid.), is known as one of the important early figures of hermeneutics and a forerunner of Dilthey. Making interpretation the key to the historical world, Boeckh systematised earlier interpretive ideas in application to classical texts. "The aim of philology is not the writing of history; it is the re-cognition of the knowledge set down in the writing of history." (1886 [1968, 9]) Understanding a text requires relating its individuality, which derived from the intentions of the author, to the structure, which derived from the genre to which it belongs. Interpretation had to comprehend the "subjective" as well as the "objective conditions of the thing communicated" (ibid., 51). Neurath's appreciation of Boeckh's outstanding hermeneutic competence is particularly important in light of his later campaign against a supposedly distinctive category of hermeneutic understanding (*Verstehen*). It suggests that he took for granted the interpretive nature of much work in history and elsewhere and later only objected to its 'metaphysical' interpretation by opponents of the unity of science.

2.2 Studies in Ancient and Modern Economic History. Neurath's work until the beginning of World War I addresses all the aspects just described. His studies in ancient and modern economic history most clearly survey economic institutions in the laboratory of history. (More on these presently.) The two-volume anthology of the history of economic theory jointly edited with his wife was evidently meant to serve the need to gain an overview of the history of economics (Neurath and

Schapire-Neurath 1910). His doctoral dissertation, meanwhile, which Meyer lauded publically as "detailed and excellent" (1910, 121n), had provided an example of the history of learned and popular social thought by means of the study of ancient texts and their interpretation. Dealing with the interpretation of Circero's *De officiis*, I. 42, from antiquity to the 19th century, Neurath argued that the idea expressed by Cicero, that the free citizen participating in the polity must be financially independent, was not held universally but reflected political interests in antiquity as much as now. He also noted that different conceptions of the course of history had been adopted at different times in response to different desiderata.[43] (Already the young Neurath explored what later would be called critique of ideology.)[44] As to the issues of historiography itself, there remained the question of how the singular events of history were to be comprehended: what regularities was it legitimate to assume and how far was it permitted to use contemporary categories in describing the past?

These issues animate Chapter 1, Neurath's "Interest on Money in Antiquity", which was also stoked by yet another historians' dispute, namely, Meyer's debate with Karl Bücher.[45] Bücher (1893) had claimed, following Rodbertus, that the economic organisation of antiquity was wholly one of the *oikos*, of autonomous extended households. Meyer objected, with reference to results by Weber (1891), and strongly opposed the underlying idea that the historical development of the Mediterranean peoples was a continuous ascent along the successive categories of antiquity, Middle Ages and modernity (*Neuzeit*): "Against this it cannot be stressed enough, that with the decline of antiquity the development begins anew and returns to primitive stages that once had been long superceded." (1895 [1910, 89]) While Neurath sided with Meyer, he was aware of the danger of anachronism. "Today people try to trace the same economic tendencies in antiquity as in present times, without committing the mistake of projecting modern conditions into antiquity." (Chapter 1)

Meyer's approach to the history of antiquity clearly gives rise to the question intensely pursued by Max Weber: was there capitalism already in antiquity? Weber himself kept a carefully calibrated distance to both parties in the dispute between Meyer and Bücher.[46] In his writings on the topic he insisted that while capitalist forms of economic enterprise did develop in antiquity, they should not be fully equated with their modern forms.[47] This question is also at the forefront of Neurath's

concerns in Chapter 2, his *Economic History of Antiquity*, from which the Preface and Chapters 1 and 8 of the second edition are translated here (with some variants from the first and third editions given in the notes). Meyer approved Neurath's "excellent sketch of the development" in a footnote to the reprint of his 1895 lecture (1910, 90n). Again Neurath supported the view that the economic forms of antiquity are related in many ways to those of modern times, adding the for him soon characteristic twist that it is not clear whether historical development has discarded certain forms for ever.

One of the most important features of Neurath's history is his stress on what Meyer had designated the "system of Egyptian economy in kind" (1895 [1910, 93]), especially in the Concluding Overview of the 1st edition (here translated in fn. 19 of Chapter 2). By 1918, as the Preface of the 2nd edition documents, Neurath had pursued his idea that economies in kind are not phenomena strictly of the past in numerous publications. It may be noted also that Neurath presented a significantly different explanation for the decline of Rome from Weber. Whereas Neurath merely detailed, in Chapter 8, various aspects the "internal disintegration" of which Meyer had spoken (in the quotation taken as motto of the Concluding Overview), Weber had been more specific already in his writings on the topic from the 1890s, naming the decline of the market economy and the increase of economy in kind as causal factors for the decline. In his greatly expanded *Agrarian Sociology of Ancient Civilizations* of 1909, he added to this the increased bureaucratisation by means of which capitalism was "suffocated" by the Roman state.[48] Echoing the pessimistic conclusion of his *Protestant Ethic*, Weber wrote in his conclusion:

> Thus in all probability some day the bureaucratization of society will get the better of capitalism in our age as well as in antiquity. We too will then enjoy the benefits of bureaucratic "order" instead of the "anarchy" of free enterprise, and this order will essentially be the same as that which characterised the Roman Empire and – even more – the New Empire in Egypt and the Ptolemaic state . . . . This is not the place, however, to pursue such reflections. The long and continuous history of the Mediterranean-European civilization does not show either closed cycles or linear progress. Sometimes phenomena of ancient civilization have disappeared entirely and then come to light again in an altogether different world. In other respects, however, the cities of late antiquity, especially of the Hellenistic Near East, were the precursors of mediaeval industrial organisation, just as the manors of late antiquity were precursors of the estates of medieaval agriculture. (1909 [1988, 365–366, transl. altered])

Comparisons with Neurath's Concluding Overview of 1909 and his Preface of 1918 invite themselves.[49] Except for the time-frame within which they conceive of the developments, he and Weber seem to differ mainly in how they evaluate them. Ten years later, as character witness at Neurath's trial for his involvement in the Munich soviet republic, Weber attested to the fact that "his work in economic history of antiquity was always held in high esteem", but in a letter a further three months on Weber also called his schemes for planned economies an "amateurish, objectively absolutely irresponsible foolishness that could discredit 'socialism', indeed for a hundred years, tearing everything that could be created now into the abyss of a stupid reaction".[50] Unlike Neurath, Weber had little sympathy for in-kind economies.

"War Economy", included as Chapter 3, is the first of a long series of papers on the subject the creation of which is credited to him.[51] Being neither pacifist nor war-monger, Neurath's "technical" attitude is fully displayed: the desirability or undesirability of war is no issue here, only its effects on a national economy's productivity. While the only other piece of related work available so far in translation, "The Theory of War Economy as a Separate Discipline" (1913e [1973, 125–130]), argues for the thesis announced in the title on more metatheoretical grounds, "War Economy" also presents the historical material and wealth of financial data which Neurath adduced in support of his contention that economics in war deserves a special field of study.[52] The paper is remarkable in virtually predicting forms of economic organisation that were realised during World War I – and misjudging the tendency towards "humane" warfare, considering the Battle of the Somme.[53]

In war Neurath saw emerging aspects of administrative economy that addressed the failings of free market economies. Forms of organising production and distribution were rediscovered which in times of peace had been superceded and were forgotten. Thus questions of profitability gave way to questions of productivity and monetary exchanges were replaced by barter on the larger scale, gradually introducing an economy in kind. Neurath's arguments were not socialist, for the principle of full employment here follows from the principle of full utilisation of all available resources. Parts of his argumentation have been judged advanced for his day, given its concern with the state as a directive agent, especially his discussion of war bonds and the effects of inflationary increase of money supply.[54] Neurath proposed reorganising the