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Writing in the Language of Reality: Interwar Experiments in Language

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Abstract

This paper examines projects in universal communication from the interwar period, including Charles Kay Ogden's *Basic English*, Otto Neurath's *Isotype*, and László Moholy-Nagy's *typo-photo*. The projects under discussion — experiments in language reform, graphic design and photography — were all born from a dissatisfaction with the imprecise, arbitrary and historically-contingent nature of established languages and semiotic systems. A non-arbitrary mode of communication was sought, one that represented reality directly without translation through a cultural code.

Keywords: Charles Kay Ogden; Isotype; László Moholy-Nagy; Otto Neurath; Franz Roh; History of Linguistics; Modernism

Introduction

In an essay published simultaneously in German, French, and English in 1929 entitled 'mechanism and expression', German art-critic Franz Roh speculated that photography might soon replace writing, because photography 'makes use of the international language of outer environment that fundamentally neither changes after centuries nor after countries.'¹ Roh asserts that the world itself is intelligible as language and further that photography might serve as a means of inscribing such language. Despite the seeming outlandishness of this idea — photography as writing in the universal language of reality — when viewed in the context of European interwar ideas on the function of language and experiments in graphic communication, Roh's speculation is not as unfounded, or at least not as unprecedented, as it might seem at first.

The figures discussed below, it will be argued, were united in sharing a suspicion of language, characteristic of the first stage of what is here called 'the long linguistic turn'. In the essay '*Aufbau/Bauhaus: Logical Positivism and Architectural Modernism*' (1990), Peter Galison argued that there were connections between Vienna Circle logical positivism and

¹ Franz Roh: 'Mechanism and expression'. In: Franz Roh and Jan Tschichold (eds.): *foto-auge / œil et photo / photo-eye*. Stuttgart: Akademischer Verlag Dr Fritz Wedekind, 1929, p. 14–18, p. 15.

Bauhaus architecture theory that were neither simply biographical nor accidental, but rather resulted from deep procedural and ideological homologies between the two groups.² Aspects of Galison's thesis have been challenged (as will be discussed below); nevertheless, this paper follows Galison in attempting to locate commonalities in interwar philosophy and design. The commonality under discussion is the tendency to view language with suspicion — as something which restrains understanding — and thus the desire to create improved systems of communication. This tendency provoked diverse responses, exposing differences in both conceptions of language and expectations of what could be achieved through improved languages. Several such projects, and their similarities and differences, are discussed below.

C.K. Ogden's *Basic English* (1930), Otto Neurath's *Isotype* (1936), and László Moholy-Nagy's *Typofoto* (1925), each betrayed, to varying extents, common semiotic pre-occupations. Firstly, they attempted to bring the *referent* into a closer or direct relationship with the units of expression within a system of communication. Secondly, they were motivated by dissatisfaction with the arbitrary nature of established systems of communication. Language was seen to be a veil, obscuring and distorting the view of reality. As we will see, *Basic* attempts to simplify the path between expression and referent, by minimising competition in expression. *Isotype* goes further, attempting to refer through iconic-signification in a manner intelligible without training. Finally, Moholy-Nagy proposes that photography might allow 'reality' into graphic communication, to speak for itself.

1. The linguist: biologist or engineer?

Ferdinand de Saussure's *Course in General Linguistics*, posthumously published in 1916, is credited with having set the agenda for the science of linguistics in the twentieth century as the study of language as a *synchronic* system. Prior to Saussure, the study of language is said to have been dominated by philological and etymological research into the *diachronic* development of language and languages.

These two areas — synchronic and (historical-) diachronic — do not exhaust linguistic research. A third area which has perennially captivated Western thought has been into language's *future* development. In the period following the First World War, many including Ogden, saw this as the most vital area of research and devoted themselves to the task of directing the development of language. A comparison of the ideas of Saussure and Ogden

² Peter Galison: *Aufbau/Bauhaus: Logical Positivism and Architectural Modernism*. In: *Critical Inquiry* 16/4 (1990), p. 709–752.

reveals that their differing views on the task of linguistics (respectively, whether to study language as found, or to direct language's future development) coincides with a fundamental difference in understanding of the nature of language and meaning.

Saussure asserts that language is not simply a naming system; not simply a set of words standing for things or meanings existing outside of language. Rather, language is both the system of expression and the system of meanings. From a plane of undifferentiated ideas and a plane of undifferentiated sounds, language establishes the 'intermédiaire entre la pensée et le son, dans des conditions telles que leur union aboutit nécessairement à des délimitations réciproques d'unités.'³ Such a bond formed by mutual delineation of sound and thought, or *signifier* and *signified*, forms Saussure's basic unit of language, the *sign*. This bond is said to be arbitrary, in that there is no natural reason for a particular sound to have a particular associated content; the relationship only exists in so far as it is observed by convention. Just as the sounds of language function in differential contrast from one another, so too, claims Saussure, do meanings. Saussure, therefore, enshrines language as the site of meaning, rather than as a means of representing meanings (or *things*) exterior or prior to language. He often described language as being akin to a biological organism.⁴ The linguist is then like a biologist: observing and describing the organism of language from a distance. In contrast, Ogden wrote, 'a good language is a machine for thought.'⁵ The linguist becomes an engineer, and language a tool which can be modified and improved.

David West notes that both Ogden and Saussure were 'concerned not with specific languages at particular moments in time, but with the nature of language in general.'⁶ Yet, each took different views on what was relevant to the study of language-as-such in the details of particular historically-embedded languages. Saussure's biologist approach meant that all facts of language were worthy of study. He not only advanced a theory of phonetics-as-such, but was deeply knowledgeable about the phonetics of individual languages. Ogden's engineer approach meant that he saw in the complexity of natural languages too much irrelevant and unnecessary detail. In contrast to Saussure, Ogden seemed rarely able to muster interest in

³ Ferdinand de Saussure: *Cours de linguistique générale*. Édition critique préparée par Tullio de Mauro. Paris: Payot, 1995, p. 156. (*Course in General Linguistics*. Transl. by Wade Baskin. London: Peter Owen, 1974, p. 112: 'a link between thought and sound, under conditions that of necessity bring about the reciprocal delimitations of units').

⁴ Cf. Saussure, *Cours de linguistique*, p. 40–41.

⁵ C. K. Ogden: 'Basic English and Grammatical Reform'. In: W. Terrence Gordon (ed.) *C.K. Ogden and Linguistics, Vol. 2: From Bentham to Basic English*. London: Routledge/Thoemmes Press, 1994, p. 187–226, p. 187.

⁶ David West: Language, Thought and Reality: A Comparison of Ferdinand de Saussure's *Course in General Linguistic* with C.K. Ogden and I.A. Richards' *The Meaning of Meaning*. In: *Changing English* 12/2 (2005), p. 327–336, p. 327.

phonetics, and when he did he made mistakes.⁷ Ogden's most sustained writing on phonetics, despite acknowledging the 'interest and value [of phonetics] for descriptive purposes', describes phonetics as a science concerned with details 'so complex as to seem vague', and phoneticians as people 'who know too much'.⁸ For Saussure, the linguist was obliged to learn as many languages as possible, 'pour tirer de leur observation et de leur comparaison ce qu'il y a d'universel en elles.'⁹ For Ogden, on the other hand, the learning of languages was ultimately time wasted:

The best analogy is that of a building of many floors in which there is no lift. It is not denied that the stairs are useful, even essential in order to reach the top, but the case in favour of climbing stairs (strengthening the leg muscles, promotion of digestion, view from passage windows, opportunity for reflection during pauses, cultivation of poise and deportment, character-training by trail of temper, *etc.*) is a weak one. One good lift would dispose of them all.¹⁰

In *The Meaning of Meaning* (1923), Ogden with I.A. Richards proposed an alternative to Saussure's semiotic theory, which they named *the science of symbolism*. Saussure's definition of the sign as coincidence of signifier and signified excluded concern with that which falls outside the sign: 'the referent' — the external reality (or external meaning) to which language is said to refer. As with Saussure, Ogden and Richards' reject the notion of language as a naming system — as 'words' standing directly for referents. Nevertheless, the referent is integral to their model of *symbolism*. In contrast to Saussure's two-part sign, Ogden and Richards' model is a three-part structure in which *symbol* (roughly analogous to Saussure's signifier) relates to *thought* (roughly analogous to Saussure's signified), and thought stands not only in the relation to symbol, but also to *referent*.¹¹ That is to say, the relationship between the symbol and the referent is always mediated by thought.

In contrast to Saussure's claim that meaning resides in language, Ogden and Richards often use the term 'language' to refer only to the collection of symbols. In Ogden and Richards' sense, language and thought are distinct: their science of symbolism studies the influence of

⁷ Cf. C.K. Ogden: *Debabelization*. Psyche Miniatures, 36. London: Kegan Paul, 1931, p. 150. Ogden writes that in the reduced vocabulary of his Basic English 'the letter z which is said to present difficulties [of pronunciation] to foreigners if of rare occurrence', overlooking that the sound typically associated with 'z' (a voiced alveolar fricative) occurs in the majority of plural nouns in his 'Basic' vocabulary.

⁸ C.K. Ogden: 'Sound, Sense and Intelligibility'. In: W. Terrence Gordon (ed.): *C.K. Ogden and Linguistics, Vol. 1: From Significs to Orthology*. London: Routledge/Thoemmes Press, 1994, p. 261–353, p. 265.

⁹ Saussure, *Cours de linguistique*, p. 44: (Baskin's translation, p. 23: '[...] in order to determine what is universal in them by observing and comparing them').

¹⁰ C.K. Ogden: 'A New Solution of the Universal Language Problem'. In: W. Terrence Gordon (ed.). *C.K. Ogden and Linguistics, Vol. 1: From Significs to Orthology*. London: Routledge/Thoemmes Press, 1994, p. 75–135, p. 114–115.

¹¹ C.K. Ogden and I.A Richards: *The Meaning of Meaning*, 8th ed. London: Kegan Paul, 1946, p. 9–11. Ogden and Richards' triangular model of symbolism is indebted to Charles Sanders Peirce's model of *semiosis*.

‘language and symbols of all kinds’ on thought.¹² Further, it ‘singles out the ways in which symbols help us and hinder us in reflecting on things.’ Words can be dangerous, they can ‘deceive’.¹³ For Ogden and Richards, language is no longer the site of meaning, and further, language is also a potential adulterant of meaning, confusing thought as it stands to referent. In criticising Saussure, Ogden and Richards wrote, ‘his theory of signs, by neglecting entirely the things for which signs stand [referents] was from the beginning cut off from any contact with scientific methods of verification.’¹⁴ This criticism demonstrates the disparity between Ogden and Richards’ and Saussure’s respective motivations in the study of language. The verification of which Ogden and Richards speak is not verification of the fidelity of a theory of language to language-itself. Rather, it is language-itself which needs verification: a language’s statements must be verified as regards their fidelity to reality. Ogden and Richards mistook Saussure’s lack of concern for the ‘referent’, and definition of the relationship of signifier and signified as maintained by convention, as an unthinking acceptance of the validity of a world-conception embedded in language. Saussure, they claimed, was under the sway of ‘the tyranny of language’, due to his ‘inordinate respect’ for ‘what he imagined to be fixed meaning.’¹⁵ Such deference to convention was not only a mistaken theory of language, but a potential inhibitor of scientific progress:

...too many interesting developments have been occurring in the sciences, through the rejection of everyday symbolizations [...] for any naïve theory that ‘meaning’ is just ‘meaning’ to be popular at the moment.¹⁶

As noted, Ogden and Richards state that in language referents are symbolised via the mediation of thought, and in turn thought accesses the referent only once organised by language. In a footnote Ogden and Richards discuss the possibility of direct relation of symbol and referent, in cases such as gesture and images. In such *simulative languages* ‘the symbol used is more or less directly like the referent’ and thus symbolisation is of ‘immense superiority in efficiency’.¹⁷ Ogden and Richards state this principle is distinct from language. However as we will see below, Moholy-Nagy (and to an extent Neurath) attempt to exploit this perceived superior efficiency.

2. Basic English

¹² *Ibid.*, p. 9.

¹³ *Ibid.*, p. 8.

¹⁴ *Ibid.*, p. 6.

¹⁵ *Ibid.*, p. 4–6.

¹⁶ *Ibid.*, p. 13.

¹⁷ *Ibid.*, p. 12, note 1.

Given Ogden's view of language as 'machine', it is unsurprising that he attempted to improve on its design with a reformed language. In the 1920s and 1930s Ogden developed a reformed English which he named Basic. The Basic lexicon consisted of only 850 words (categorised as 100 'operations', 600 'things', and 150 'qualities'), a handful of affixes, and strict rules on word order.¹⁸ Basic was devised in order to be a language of precision and clarity, less capable of producing obscure or scientifically meaningless statements.¹⁹ Though still at base arbitrary (it is not a 'simulative' language), Basic is designed so that arbitrary convention is precisely and transparently organised. The frequency of arbitrariness is reduced, as each grammatical statement betrays only the handful of conventions of the reformed grammar and not the many 'rules' of one application found in historically-evolved languages. Further, the minimal lexicon removes synonyms and near synonyms, thereby clarifying reference. For Ogden, the problem was not simply that natural languages were imprecise. The co-existence of the worlds' many languages was a semiotic chaos, and a barrier to economic and scientific development. Basic could serve as an international auxiliary language — a universal means of communication for business, diplomacy and science.²⁰ But the goal was greater still. In *Debabelization* of 1931, Ogden argued that the necessity for a universal language was an incontrovertible given. A dismantling of Babel was the only hope for a peaceful and egalitarian future. In the name of world peace Ogden cited the 'peace slogan' attributed to Henry Ford: 'make everybody speak English.'²¹

Ogden argued that entirely invented languages, such as Esperanto, were ill-suited to become the one international language. Such inventions merely added to Babel and failed to capitalise on existent instances of international linguistic accord. English was already adopted as a common language in large parts of the world. Therefore the 'problem of Babel' was best dealt with by further expansion of English. In a contradictory rhetorical strategy, Ogden claimed that English was uniquely qualified to be a culturally-unbiased international language. Esperanto and the other prominent invented languages were designed from principles derived from the study of Indo-European languages. They were thus failed attempts at universalism and neutrality, as they could be regarded by 'Anglo-Indians, Afro-Americans, Samurai, Mandarins and Orientals generally' as linguistic Trojan horses, insidious vehicles of European cultural imperialism.²² In contrast, Ogden claimed English was spontaneously

¹⁸ Ogden: *Debabelization*, p. 10–11.

¹⁹ *Ibid.*, p. 11.

²⁰ *Ibid.*, p. 9.

²¹ *Ibid.*, p. 13.

²² *Ibid.*, p. 20.

being adopted across the globe according to ‘free will, from economic or utilitarian motives.’²³

H.G. Wells cast Basic in *The Shape of Things to Come* (1933) as the language of a twenty-second century Utopia. By then, as Ogden hoped, Basic was established as ‘the lingua franca of the world’, and a less ‘basic’ general English was the world language.²⁴ As Ogden predicted, English spread without force due to its ‘natural advantages’ — ‘it was simpler, subtler, more flexible and already more widely spoken.’ Basic was also cast as the language of Dystopia — the ‘Newspeak’ of George Orwell’s *Nineteen Eighty-Four*. In ‘Politics and the English Language’ (1946), Orwell expressed Ogden-like concerns over the power of language to confuse thought and sided with the linguistic-engineer against ‘the half-conscious belief that language is a natural growth and not an instrument which we shape for our own purposes.’²⁵ Newspeak has often been taken as a satire of Basic, but there is another perhaps more plausible reading, which reconciles more easily with Orwell’s Ogden-like views on language and the fact that Orwell (at one stage at least) supported Basic.²⁶ In *Nineteen Eighty-Four*, Orwell describes a civilization in which egalitarian socialist politics were appropriated and redirected towards totalitarian state communism. With Newspeak he similarly shows that the project to redesign language so as to reduce its ‘tyranny’ over thought, could be re-directed to create greater tyranny. Thus Basic — a language which was to serve science — is transformed in *Nineteen Eighty-Four* into Newspeak: a language in which ‘there is no word for “Science”’, and thus, ‘the empirical method of thought, on which all the scientific achievements of the past were founded, is opposed.’²⁷

3. Linguistic turns and the suspicion of language

Above we contrasted two attitudes towards the study of language — that of the biologist who views language as an organism to be observed and described, and that of the engineer who sees language as a tool that can be improved in design. Ogden’s view of natural language as a faulty tool was characteristic of the first phase of what Richard Rorty in 1967 labelled ‘the

²³ *Ibid.*, p. 23.

²⁴ H.G. Wells: *The Shape of Things to Come*. London: Penguin Classics, 2005, p. 430–432 (Book V, Chapter 7).

²⁵ George Orwell: ‘Politics and the English Language’. In: *Orwell Essays*. London: Penguin, 2004, p. 348–360, p. 349.

²⁶ See Jean-Jacques Courtine: A Brave New Language: Orwell’s Invention of ‘Newspeak’ in 1984, transl. by Laura Willett. In: *SubStance* 15/2 (1986), p. 69–74, p. 71–72. See also W. Terrence Gordon: Undoing Babel: C. K. Ogden’s Basic English. In: *Et cetera* 45 (1988), p. 337–340, p. 339.

²⁷ George Orwell: *Nineteen Eighty-Four*. Centennial ed. London: Plume/Penguin, 2003, p. 198.

linguistic turn’.²⁸ In Rorty’s original context the linguistic turn referred to a phase in the *analytic* philosophical tradition beginning in the 1910s when philosophers came to ‘the view that philosophical problems are problems which may be solved (or dissolved) either by reforming language, or by understanding more about the language we presently use.’²⁹ For the Vienna Circle logical positivist, Rudolf Carnap, traditional philosophical problems arose due to the illogical use of language. Recognition of the logical syntax of language (as opposed to the historically-evolved syntax), or the use of an ideal language constructed according to logical principles, would demonstrate the meaninglessness of many philosophical problems, and would turn philosophy into science (or erase the need for philosophy altogether).³⁰ From this view, analytical linguistic philosophy dialectically unfolded, and ultimately, according to Rorty’s later reflection, came to a close at some point in and around the 1970s.³¹

Since Rorty’s 1967 use, the term ‘linguistic turn’ has frequently been adopted to refer to a similar focus on language in the *continental* philosophical tradition in the second-half of the twentieth century. This linguistic turn begins with the spread of Saussurean semiology into the arts, humanities, and social sciences and culminates in the postmodern/post-structuralist attention to language — a phenomenon Rorty elsewhere labels ‘textualism’. Unlike the figures discussed in the early phases of Rorty’s linguistic turn (such as the logical positivists), the figures in the ‘textualist linguistic turn’, often held, as Rorty put it, an ‘antagonistic position to natural science’.³² In this narrower use, the ‘linguistic turn’ refers to a reification of language which has, so we are told, dominated intellectual activity from the later twentieth century to today. Bruno Latour, for example, uses ‘linguistic turn’ in precisely this manner: as synonymous with ‘semiotic turn’ and involving an elevation of language into ‘a law unto itself, a law governing itself and its own world’, which Latour explicitly contrasts with

²⁸ Richard Rorty: ‘Introduction: Metaphilosophical Difficulties of Linguistic Philosophy’. In: Richard Rorty (ed.): *The Linguistic Turn: Recent Essays in Philosophical Method*. Chicago: The University of Chicago Press, 1967, p. 1–39, p. 8–9. Rorty attributes the term to Gustav Bergmann.

²⁹ *Ibid.*, p. 3.

³⁰ *Ibid.*, p. 5–6.

³¹ Richard Rorty: ‘Twenty-Five Years After’. In: *The Linguistic Turn: Recent Essays in Philosophical Method*. 3rd ed. Chicago: The University of Chicago Press, 1992, p. 371–374.

³² Richard Rorty: ‘Nineteenth-Century Idealism and Twentieth-Century Textualism’. In: Richard Rorty: *The Consequences of Pragmatism: Essays 1972–1980*. Minneapolis: The University of Minnesota Press, 1982, p. 139–159. Rorty uses ‘textualism’ to denote ‘the so-called “Yale School” of literary criticism centring around Harold Bloom, Geoffrey Hartmann, J. Hillis Miller, and Paul de Man, “post-structuralist” French thinkers such as Jacques Derrida and Michel Foucault, historians such as Hayden White, and social scientists such as Paul Rabinow’, p. 139.

‘modernism’ and ‘positivism’.³³ Similarly, W.T.J. Mitchell (although referencing Rorty’s 1967 essay in his notes), describes the linguistic turn as the dominance of language-centred approaches to ‘critical reflections on the arts, media, and cultural forms.’³⁴ For Mitchell this linguistic turn is contrasted with a supposed nascent ‘pictorial turn’, which will free art criticism from the straight jacket of not just linguistics but language; reversing the ‘attempt to master the field of visual representation with a verbal discourse.’³⁵

Despite the contrast between these two senses of ‘linguistic turn’, it makes sense to unite the textualist and analytical turns (let us call this unity the ‘long linguistic turn’), as demonstrating a central tendency in twentieth-century thought common to both philosophical traditions (and to intellectual culture generally). The narrower use of linguistic turn (in reference to textualism only) may misrepresent the nature of this tendency, suggesting, firstly, that we are coming from a phase of intellectual activity which was (implicitly unduly) dominated by a reification of language; and therefore attention to the material and the visual, or the object and the referent, is a challenge to the dominant ‘paradigm’.³⁶ But if we expand the lens, bringing the long linguistic turn into view, what we see is a tendency to vilify rather than reify language (I deliberately write ‘tendency’, rather than define the period by this tendency). As discussed above, both Ogden and Carnap held language in suspicion, and even contempt. The textualists were not radically opposed to the logical positivists in the view that our knowledge is shaped by language, and that this was often a very bad thing. This view, of the shaping (and therefore potentially tyrannical) influence of language, bubbles up throughout the twentieth century, in, for example, the linguistics of Benjamin Lee Whorf. In Whorf’s own writings, the so-called Sapir-Whorf hypothesis (that language shapes our understanding of the world) is often raised in order to challenge presumptions of the greater sophistication of European languages: for example, Whorf claimed that an English-speaker was less well-equipped than a Hopi-speaker to make sense of modern physics.³⁷ The notion that language orders our understanding and experience of the world echoes and mutates through French post-structuralism, becoming the claim that language constitutes the world, and at times takes on a paranoid inflection such as in the early Jean Baudrillard’s description of the ‘tyranny’ of a society structured like language.³⁸ And still today, the theme of rebellion

³³ Bruno Latour: *We Have Never Been Modern*. Transl. by Catherine Porter. Cambridge, Mass.: Harvard University Press, 1993, p. 62–65.

³⁴ W.T.J. Mitchell: *Picture Theory*. Chicago: Chicago University Press, p. 11.

³⁵ *Ibid.*, p. 9.

³⁶ Cf. Mitchell, *Picture Theory*, p. 13.

³⁷ Benjamin Lee Whorf: *Language, Thought, and Reality*. Cambridge, Mass.: MIT, 1956, p. 55.

³⁸ Cf. Jean Baudrillard: *For a Critique of the Political Economy of the Sign*. St. Louis: Telos, 1981, *passim*.

against the restraints of language is repeated in recent assertions from the field of Visual Semiotics championing a ‘new visual literacy’ no longer ‘subservient to language’, which threatens the ‘dominance of verbal literacy among [the] elite.’³⁹

As such the long linguistic turn can be taken to unite as aspects of the dialectic of twentieth-century thought, not only later postmodern assertions of the centrality of language in constituting reality, but also Ogden’s view of language as an imperfect, and therefore improvable, means of dealing with reality. As we have already seen with Orwell, the suspicion of language also informed thought beyond linguistics and philosophy. One area in which this line of thought was particularly influential was in the development of modern graphic design, as exemplified by the following statement from the Bauhaus graphic designer, Herbert Bayer:

It is my own contention that we find ourselves today suffering from acute poisoning from too many words, which cruelly invade our mind every second of the day. Too many words become like a screen between us and the visible world.⁴⁰

Galison described Carnap and Bauhaus architecture as attempting to establish scientific foundations for their respective projects by purging the ‘decorative, mystical, or metaphysical’ through ‘transparent construction’ from ‘simples’.⁴¹ We can frame this in the context of the tendency to hold language in suspicion as follows: the difference between the attempt to purify language and the attempt to purify architecture is that the former is an attempt to improve language and the latter is an attempt to purge architecture of language-like attributes. The former seeks to make meaningless statements impossible and to clarify the nature of reference; the latter seeks to cease all statements and to abolish reference entirely by purging design of the signifying encrustations of ornament.

4. Neurath’s picture of language and Neurath’s picture language

Neurath and Carnap, colleagues in the Vienna Circle, both collaborated with Ogden in the 1930s. Ogden published Carnap’s writings in his journal *Psyche* as well as the books *The Unity of Science* (1934) and *Philosophy and Logical Syntax* (1935), through his own edited series, *Psyche Miniatures*. Ogden and Neurath collaborated closely and frequently in the 1930s: for example Neurath’s *International Picture Language* (1936) was published through

³⁹ Gunther Kress and Theo van Leeuwen: *Reading Images: The Grammar of Visual Design*, 2nd ed. New York: Routledge, 2006, p. 17, 23.

⁴⁰ Herbert Bayer: ‘design, designer, and industry’. In: Arthur A. Cohen (ed.): *Herbert Bayer: The Complete Work*. Cambridge, Mass.: The MIT Press, 1984, p. 354–355.

⁴¹ Galison, *Aufbau/Bauhaus*, p. 710.

Psyche Miniatures with text written in Basic English; and in turn, Neurath assisted in the design of a book promoting Basic, *Basic by Isotype* (1937), published again through Psyche Miniatures.

One might expect then, that Neurath would sit comfortably with Ogden and Carnap: demanding a language free of ambiguity and historically-accumulated irrational habits. While it is certainly not the case that Neurath took a Saussurean approach to language as a thing to be observed without interference, it is also not quite the case that he viewed historically-evolved language as fundamentally flawed. Galison's account of logical positivism as attempting 'transparent construction' from 'simples' may account for Carnap's project; however Neurath scholars have highlighted the differences in Carnap's and Neurath's ideas on language.⁴² Further, several authors have argued that Galison misrepresents Neurath.⁴³ Carnap's linguistic turn took the traditional problems of philosophy as arising from the illogical use of language. Neurath followed through further on this reasoning. For Neurath, to construct an improved language opposed the very logic of the discovery of the centrality of language in understanding, as this discovery exposed the impossibility of assessing language from an extra-linguistic standpoint. Consequently, no language could be claimed to be in greater agreement with something outside of or before language.⁴⁴ The validity of a scientific statement would be confirmed not by its agreement with 'reality', but by its agreement with other statements.

Ogden argued on pragmatic grounds for the value of 're-using old bricks' in the design of an improved language.⁴⁵ Neurath asserted the value of historical-evolved language with greater philosophical rigour. Denying the possibility of foundationalism, Neurath described the course of the development of knowledge as being like a boat at sea: the boat is continually repaired and modified, but never returns to dry dock to be built anew.⁴⁶ That we use terms today that were used in previous periods or cultures with a different scientific understanding of what these terms stand for (e.g. 'water'), allows, as Angela Potochnik and Audrey Yap put

⁴² Nancy Cartwright, et al.: *Otto Neurath: Philosophy Between Science and Politics*. Cambridge: Cambridge University Press, 1996, passim.

⁴³ See Audrey Potochnik and Angela Yap: Revisiting Galison's 'Aufbau/Bauhaus' in light of Neurath's philosophical projects. In: *Studies in History and Philosophy of Science* 37/3 (2006), p. 469–488. See also Thomas Uebel: What's Right About Carnap, Neurath and the Left Vienna Circle Thesis: A Refutation. In: *Studies in History and Philosophy of Science* 41 (2010), p. 214–221.

⁴⁴ Cartwright et al., *Otto Neurath*, p. 142, 153; Otto Neurath: 'Sociology in the Framework of Physicalism (1931)'. In: Robert S. Cohen and Marie Neurath (eds.): *Otto Neurath: Philosophical Papers, 1913–1946*. Dordrecht: D. Reidel, 1983, p. 58–90, p. 61.

⁴⁵ Ogden, 'A New Solution', p. 76.

⁴⁶ Cartwright et al., *Otto Neurath*, p. 190; Otto Neurath: 'Protocol Statements (1932)'. In: Robert S. Cohen and Marie Neurath (eds.): *Otto Neurath: Philosophical Papers, 1913–1946*. Dordrecht: D. Reidel, 1983, p. 91–99, p. 92.

it, ‘stability of discourse across times and places and speakers’.⁴⁷ For Potochnik and Yap, Neurath’s differences with Carnap undermine Galison’s thesis as it applies to Neurath. Instead, they argue that what unites Neurath and Bauhaus architecture theory is not methodological, but the objective ‘of improving life through science and technology.’⁴⁸ Other authors, such as Michelle Henning, have criticised a more general tendency to frame Neurath within a narrow account of modernism conceived of as the pursuit of ‘pure vision’.⁴⁹ If Galison is guilty of forcing a Neurath-shaped peg into a Carnap-shaped hole, as some critics contend, there are nevertheless serious homologies that unite Neurath, Carnap, Ogden and currents of modernist-design thinking, and these are closely related to, if not always identical to, those diagnosed by Galison. Despite Neurath’s advocacy of ambiguity in language and rejection of Carnap’s project to uncover the logical syntax of language as metaphysical foundationalism, he nevertheless was motivated by a suspicion of the supposed distorting effects of natural language. Neurath did advocate that changes in linguistic habits could liberate scientific discourse from unintended metaphysics. This he gave the humble label of ‘universal jargon’ — a jargon which would not be built from the bottom up at dry dock, but formed through the consensus of sailors already at sea.⁵⁰ Neurath also voiced encouragement for the project of ‘debabelisation’, commending Ogden’s Basic for utilising already existent ‘instruments which are, or have become, international.’⁵¹ Beyond a ‘jargon’, Neurath’s contribution to international communication was a ‘picture language’ known as Isotype. From the outset Isotype was used to fulfil particular educational goals and was never presented as a completed visual language (although Neurath did express such ambitions).⁵² Of the many books Ogden published on and in Basic, all primarily served to promote and explain the nature of Basic. In contrast, Isotype was used almost exclusively to communicate information about things other than itself. Quite how Isotype graphics communicate is not something that has been exhaustively elucidated. Neurath writes that the first stage of the Isotype method is the construction of recognisable symbols, and the second is the combination of such elements to create new meanings. He demonstrates combination with an example of shoe and factory symbols

⁴⁷ Potochnik and Yap, *Revisiting Galison*, p. 477.

⁴⁸ *Ibid.*, p. 487.

⁴⁹ Michelle Henning: Living Life in Pictures: Isotype as Modernist Cultural Practice. In: *New Formations 70* (2010), p. 41–59, p. 42–44. Henning attributes ‘pure vision’ to: Victor Burgin: *Between*. Oxford: Blackwell, 1986.

⁵⁰ Otto Neurath: ‘Universal Jargon and Terminology (1941)’. In: Robert S. Cohen and Marie Neurath (eds.): *Otto Neurath: Philosophical Papers, 1913–1946*. Dordrecht: D. Reidel, 1983, p. 213–229.

⁵¹ Otto Neurath, *International Picture Language*. Psyche Miniatures, 83. London: Kegan Paul, 1936, p. 13.

⁵² Otto Neurath: *Empiricism and Sociology*. Dordrecht: D. Reidel, 1973, p. 217.

combining to indicate a ‘shoe factory’, yet from this example one cannot extract a general rule regarding combination.⁵³ Robin Kinross notes that one consistent principle in Isotype is that ‘greater quantities are shown by the repetition of symbols’, and not the relative scale of symbols.⁵⁴ Marie Neurath’s promisingly titled *The Transformer: The Principles of Making Isotype Charts* states that the fundamental process of constructing Isotype charts is ‘transformation’ — translation of data into visually intelligible form — yet only provides an impressionistic account of what ‘transformation’ involves.⁵⁵

The difficulty in providing a precise account of the semiotics of Isotype has been asserted by some authors as evidence of Isotype’s strength.⁵⁶ Kinross states that ‘one should not make too much of this incommunicability’, and points to Neurath’s statements advocating variation in Isotype lest ‘boring rows of numbers [turn] into boring rows of symbols’.⁵⁷ Similarly, Henning writes that Isotype’s ‘flexibility and usefulness depended on this recognition of it as a practice, not a code that might be “cracked”’.⁵⁸ Yet would-be code-crackers will find encouragement in Neurath’s frequent descriptions of Isotype as a system, and one in a process of refinement towards greater systematicity. That Isotype sought to express ever new content, does not coincide with it being impossible for it to have a defined and systematically-coded system of expression. If we think of the finite graphic resources of conventional mathematical notation, compared to the infinity of possible contents expressed in this system, it does not follow that the possibility of inventing new modes of expression is demanded by the need to express new contents.

Neurath acknowledged the ‘far-reaching limitations’ arising from the construction of a language with icons. Nevertheless, he argued ‘these limitations sometimes eliminate much danger.’⁵⁹ Fundamental to Isotype was a belief in the greater intelligibility of icons. As Neurath put it (writing in Basic English), ‘reading a picture language is like making observations with the eye in everyday experience [...] the man has two legs; the picture-sign two legs; but the word-sign “man” has not two legs.’⁶⁰ Iconism determines the *construction*

⁵³ Neurath, *Empiricism and Sociology*, p. 225.

⁵⁴ Robin Kinross: ‘Lessons of Isotype’. In: Marie Neurath and Robin Kinross: *The Transformer: The Principles of Making Isotype Charts*. London, Hyphen: 2009, p. 97–116, p. 103; Neurath, *Empiricism and Sociology*, p. 215.

⁵⁵ Marie Neurath and Robin Kinross: *The Transformer: The Principles of Making Isotype Charts*. London, Hyphen: 2009.

⁵⁶ A brief sketch of the semiotics of Isotype is provided in Ellen Lupton: Reading Isotype. In: *Design Issues* 3/2 (1986), p. 47–58.

⁵⁷ Kinross, ‘Lessons of Isotype’, p. 104.

⁵⁸ Henning, ‘Living Life in Pictures’, p. 59.

⁵⁹ Neurath, ‘Universal Jargon’, p. 218.

⁶⁰ Neurath, *International Picture Language*, p. 20.

of the Isotype graphic component but not always the semiotic *function* to which it is put in an Isotype composition. Such a graphic component will be put to use for different meanings not conveyed through iconism, but through a semiotic convention (often one invented for each composition). Thus, a geometric reduction of a humanoid figure in front elevation, depending on context of use, will not stand simply for the semantic content ‘man’, but rather ‘Russian citizens’, ‘300 adult males’, etc. Such bonds, between graphic and semantic content are a result of an arbitrary convention which must be learnt (from a textual key) to be understood. The iconic graphic component, imbued with a conventional meaning, is then utilised in another semiosis in which it is duplicated in rows (as in bar charts) to indicate relative quantities. In short, Isotype is not exclusively iconic, nor is its iconism straightforward. Instead there is an interplay between arbitrary and iconic signification, and often this interplay is not systematic across Isotype, but established according to the communicative demands of individual compositions. Isotype is pragmatic in deployment of semiotic strategies, focusing on conveying information rather than pursuing an ideal of iconic semiosis. Nevertheless, there is a definite priority given to iconism in much of Neurath’s writings, as a semiotic mode capable of transcending cultural barriers. ‘Words make division,’ he writes; ‘pictures make connection’.⁶¹

As a child Neurath developed a fascination with Egyptian wall paintings following visits to the Kunsthistorisches Museum in Vienna.⁶² He initially took the ‘hieroglyphic symbols’ that surrounded the paintings to be akin to the larger imagery, assuming that with effort they would be intelligible without needing to understand the spoken language of ancient Egypt. Later Neurath learnt that hieroglyphs were no such thing. Similar to Isotype graphic components, hieroglyphs are iconic in construction, yet are often attributed with non-iconic functions. Hieroglyphs involve phonography (symbols standing for sounds of spoken language), and are often constructed according to the ‘acrophonic’ principle, meaning the symbol stands not directly for the thing pictured but for the phonetic value of the first sound of the thing pictured in a particular language.⁶³ Again, iconism is a stage in a multi-tiered semiosis.

Prior to the decipherment of the Rosetta Stone, Europeans took Egyptian hieroglyphics to be a picture-writing representing meanings without linguistic mediation, that could potentially

⁶¹ Neurath, *International Picture Language*, p. 18.

⁶² Neurath: *From Hieroglyphics to Iso-type: A Visual Autobiography*. London: Hyphen, 2010, p. 70.

⁶³ Neurath, *Hieroglyphics to Iso-type*, p. 80. Definition of ‘acrophonic’: Geoffrey Sampson: *Writing Systems*. London: Stanford University Press, 1985, p. 78–79.

form the basis of a pure philosophical language.⁶⁴ With Egyptian hieroglyphs, Chinese writing has also been put forward as a writing that deals directly with the world without mediation through language. Geoffrey Sampson notes that although Chinese writing involves some iconic construction, it nevertheless supplies symbols not to ‘reality’ or non-linguistic meanings, but to the semantic units of language — morphemes — which are then arranged in accordance with the syntax of spoken language, not in fidelity with ‘external reality’.⁶⁵ There is a desire to allow the referent to enter the graphic expression of language and a belief that this will produce a more exact and universal language. Yet representational graphic communication is limited in its ability, when compared to graphic systems that are based on (or related to, or a graphic realisation of, etc.) the abstract and arbitrary construction of verbal language. To borrow a quip from Walter J. Ong, ‘we have all heard it said that one picture is worth a thousand words. Yet, if this statement is true, why does it have to be a saying?’⁶⁶

5. The language of reality

Ogden’s attention to the referent coincided with the view that the study of language should be directed towards improving the fidelity of language to reality. Saussure’s lack of concern with the referent coincided with a view of linguistics as tasked only with observing and describing the language ‘organism’. Saussure maintained his position of distanced observation even in the case of writing, despite his infamous pronouncements against ‘la tyrannie de la lettre’.⁶⁷ For Saussure, as elegantly expressed in Wade Baskin’s translation, writing was ‘not a guise for language but a disguise.’⁶⁸ The sole function of writing was to represent speech, yet in fulfilling this task writing erred. Writing was a potential obstacle to the linguist’s understanding of language: indexing false etymologies and corrupting language’s natural development. Despite his distrust of writing, Saussure did not advocate orthographic reform. Writing was already an interference with the language organism. Rather than interfere further the linguist was to be conscious of the ‘cas tératologiques’ which writing produced, and which ‘la linguistique doit les mettre en observation dans un compartiment spécial.’⁶⁹

⁶⁴ Umberto Eco: *The Search for the Perfect Language*. London: Fontana Press, 1995, p 15.

⁶⁵ Sampson, *Writing Systems*, p. 148–149. Sampson’s description of Chinese writing is not universally accepted. Cf.: David B. Lurie: Language, writing, and disciplinarity in the Critique of the “Ideographic Myth”: Some proleptical remarks. In: *Language & Communication* 26 (2006), p. 250–269.

⁶⁶ Walter J. Ong: *Orality and Literacy*. London: Routledge, 1982, p. 7.

⁶⁷ Saussure, *Cours de linguistique*, p. 53.

⁶⁸ Saussure, *Course in General Linguistics*, p. 30. Original French text: ‘elle n’est un vêtement, mais un travestissement.’ In: Saussure, *Cours de linguistique*, p. 51–52.

⁶⁹ Saussure, *Cours de linguistique*, p. 54. (Baskin’s translation, p. 32: ‘linguistics should put them into a special compartment for observation: they are teratological cases.’)

Saussure was not alone in viewing writing as a faulty representation of speech. The notion that the sole function of writing was the faithful representation of speech took hold at the Bauhaus, where it provoked demands for the reform of orthography (particularly the demand for the abolition of the uppercase) from designers including László Moholy-Nagy.⁷⁰ Moholy-Nagy was one of the central figures of the Bauhaus. His appointment as director of the preliminary course in 1923 was pivotal in the development of the Bauhaus as the centre of functionalist modernism.⁷¹ As a member of the Bauhaus faculty, he was exposed to the philosophy of both Carnap and Neurath, both of whom lectured at the Bauhaus in the late 1920s, albeit after Moholy-Nagy's departure.⁷² Following his exile to the United States, Moholy-Nagy became director of the New Bauhaus in Chicago in 1937, where he sustained the links between the Bauhaus and logical positivism, inviting Carnap as visiting lecturer.⁷³ In addition to orthographic convention, conventions of typographic arrangement were taken by Moholy-Nagy to be formalistic restrictions which inhibited the communicative function of typography. Conventional layout was to be rejected and typography instead, through graphic-spatial arrangement, was to communicate through the stimulation of faculties of visual apprehension.⁷⁴ Hans-Joachim Dahms notes that although Moholy-Nagy may have been influenced by Carnap, unlike Carnap, Moholy-Nagy believed that there were innate hardwired faculties of perception, and that exploitation and manipulation of such faculties should form the basis for a new scientific approach to design.⁷⁵ No matter what orthographic restrictions and graphic interventions were applied to typography, it remained reliant on alphabetical orthography, and therefore reliant on a historically-evolved and culturally-contingent mode of communication. The pursuit of objective graphic communication encouraged experimentation with non-alphabetic 'writing'. In graphic communication, photography seemed to supply the desired objectivity, being seemingly impervious to subjective adulteration.⁷⁶ Illustration, as the leading theorist of

⁷⁰ Cf. Robin Fuller: 'More consistent and systematic than any form of writing I know: Kurt Schwitters's Systemschrift.' In: *Kurt Schwitters Society Journal*, 4 (2014), p. 3–22.

⁷¹ Krisztina Passuth (ed.): *Moholy-Nagy*. London: Thames and Hudson, 1985, p. 39.

⁷² Hans-Joachim Dahms: 'Neue Sachlichkeit in the Architecture and Philosophy of the 1920s'. In: Steve Awodey and Carsten Klein (eds.), *Carnap Brought Home*. Chicago: Open Court, 2004, p. 357–375, p. 368; Galison, 'Aufbau/Bauhaus', p. 709, 710.

⁷³ Galison, 'Aufbau/Bauhaus', p. 747.

⁷⁴ László Moholy-Nagy: 'Contemporary Typography – Aims, Practice, Criticism'. In: Krisztina Passuth (ed.), *Moholy-Nagy*. London: Thames and Hudson, 1985, p. 293–295.

⁷⁵ Dahms: 'Neue Sachlichkeit', p. 368.

⁷⁶ László Moholy-Nagy: 'Photography is Creation with Light'. In: Passuth, *Moholy-Nagy*, p. 302–305, p. 304.

modernist typography Jan Tschichold put it, always betrayed the ‘hand’ of the artist.⁷⁷ In contrast, photography was a mechanical process of image-making — the subjective preferences of the photographer would not prevent the camera from recording all that fell before its lens.

For Moholy-Nagy the ‘real’ was unambiguously optically intelligible.⁷⁸ Fate in the universal intelligibility of images was combined by Moholy-Nagy with faith in the objectivity of photography. In the eighth Bauhaus Book, *Malerei Fotografie Film* (1927), Moholy-Nagy argued that traditional typography was but a ‘vermittelndes Notglied zwischen dem Inhalt der Mitteilung und dem aufnehmenden Menschen.’⁷⁹ Moholy-Nagy illustrated this point with a model showing ‘typografie’ standing between ‘mitteilung’ and ‘mensch’. Translated into Ogden and Richards’ terms, Moholy-Nagy does not take thought to mediate symbol and referent, as Ogden and Richards do. Rather symbolisation (typography) mediates thought and referent. Moholy-Nagy’s aim is to effectively remove symbolic mediation, by making the symbol a direct imprint of reality.

To achieve this, Moholy-Nagy proposes *Typofoto* as ‘die visuell exaktest dargestellte Mitteilung’.⁸⁰ *Typofoto* refers to the combination of (modernist) typography with photography and can be understood in two senses. In the first sense, *typofoto* is simply an early theorisation of the fluid combination of text and image typical of today’s editorial design.⁸¹ In the second, more radical sense, the arrangement of type and image was but a stage in the development of *typofoto* towards a new, non-alphabetical form of writing. Photography was to function not only as ‘objective’ accompanying images, but in place of text in the form of ‘fototext’.⁸² *Typofoto* was a potential revolution in writing — no longer a ‘mediating makeshift’ between communication and reader, the use of photography as text would bring the reader in direct contact with the referent. In this context the full meaning of Moholy-Nagy’s oft-cited statement that the illiterate of the future would be ignorant of both pen and camera alike is revealed.⁸³

⁷⁷ Jan Tschichold: *The New Typography*. Transl. by Ruari McLean. Berkeley: University of California Press, 1995, p. 181–182.

⁷⁸ László Moholy-Nagy: *Malerei, Fotografie, Film*. München: Albert Langen Verlag, 1927, p. 37.

⁷⁹ Moholy-Nagy: *Malerei, Fotografie, Film*, p. 37. (*Painting, Photography, Film*. Transl. by Janet Seligman. London: Lund Humphries, 1967, p. 39. Translation: ‘Linear typography communicating ideas is merely a mediating makeshift link between the content of the communication and the person receiving it’.)

⁸⁰ *Ibid.*, p. 37. (Seligman’s translation, p. 39: ‘visually most exact means of rendering communication’.)

⁸¹ This is the sense of *Typofoto* discussed by Kinross: ‘Introduction’. In: Jan Tschichold, *The New Typography*. Berkeley: University of California Press, 1995, p. xv–xliv, p. xxxiii. A similar use of the term can be found in Ken Garland: ‘Typofoto’. In: *Typographica* 3 (1961).

⁸² Moholy-Nagy, *Malerei, Fotografie, Film*, p. 38.

⁸³ Moholy-Nagy expressed this idea in several writings. Cf. Passuth, *Moholy-Nagy*, p. 301, 303, 328.

Dahms expands on Galison's thesis tracing connections between logical positivism and interwar modernist art and design beyond the Bauhaus. Central to Dahms account is the critic Roh, who was a close friend of both Carnap and Neurath.⁸⁴ Moholy-Nagy's idea of the unambiguously intelligibility of 'the real' was expressed with greater force in Roh's description of 'the international language of outer environment' (noted in the introduction above). Roh's remarks on the world as language, and photography as inscription of such language appeared in a book co-edited with and designed by Tschichold. The book was written in German, French and English, and following the Bauhaus' orthographic reform, was set entirely in lowercase, accordingly titled *foto-auge / œil et photo / photo-eye*. Included as an insert was a short manifesto by Roh demanding the complete abolition of not just the uppercase, but also German Blackletter typefaces. In 1930 Roh produced a book, again with Tschichold as designer, dedicated to the photography of Moholy-Nagy.⁸⁵

Roh's statements on photography as potential writing should not be taken to characterise Roh's strongly or continuously held views on photography and language. Nevertheless Roh's assertion that photography may serve to inscribe the universally intelligible 'language of outer environment' is emblematic of the themes of universal language and the universal intelligibility of images as they were explored in the interwar period. Roh and Moholy-Nagy arrive at a position much like that described by Swift in a satire of the language engineers of his day. In the School of Language at the Grand Academy of Lagado, Swift's Gulliver encounters professors working on a project designed to bring the referent directly into communication:

...since words are only the Names for *Things*, it would be more convenient for all Men to carry about them, such *Things* as were necessary to express the particular Business they are to discourse on [...] Another advantage proposed by this Invention, was that it would serve as an Universal Language to be understood in all civilized Nations, whose Goods and Utensils are generally of the same kind.⁸⁶

For the technological Utopians of the 1920s, the camera was believed to have made such a language a possibility.

Conclusion

⁸⁴ Dahms, 'Neue Sachlichkeit', p. 362–364; Christopher Burke, Eric Kindel, Sue Walker (eds.): *Isotype: Design and Contexts, 1925–1971*. London: Hyphen, 2013, p. 67, 77.

⁸⁵ Christopher Burke: *Active Literature: Jan Tschichold and New Typography*. London: Hyphen, 2007, p. 110.

⁸⁶ Jonathan Swift: *Gulliver's Travels*. London: Penguin Classics, 2001, p. 172 (Part 3, Chapter 5).

Galison's central thesis — that in the interwar period 'the links between art and philosophy were real, not metaphorical, as artists and philosophers were bound by shared political, scientific, and programmatic concerns' — remains valid. The aim of this paper has been to trace certain commonalities and continuities, in the ideas of Moholy-Nagy, Neurath and Ogden. Such commonalities, of course, do not define interwar modernism, nor even the ideas of any one of the authors discussed. Rather they demonstrate a 'plurality of approaches' united under a common tendency, which has here been defined not in positive terms (as attempts at 'pure vision', or 'transparent construction'), but negatively, as a suspicion of language.

In the first stage of the long linguistic turn, the suspicion of language provoked attempts to create improved systems of communication, though not all the same, and not all based on the same theoretical framework. For Ogden, in philosophy, attention to the process of symbolisation would clarify understanding, and in the pragmatic realm a reformed existing language would benefit international relations as regards peace and the advance of science. For Carnap, the task posed by the language 'problem' demanded the construction or uncovering of the ideal logical syntax of language. The idea of constructing such a language, as Galison argues, was in many ways homologous with modernist architecture theory. Above I have suggested that modernist architecture can be interpreted as an attempt to free architecture of language-like qualities. Neurath, as we have seen, found the ideal-language project to be logically groundless, and asserted the role of language in constructing (as opposed to representing) meaning. Nevertheless, this did not prevent Neurath from proposing improvements to language, in the scientific domain by adopting a 'universal jargon', and in mass-communication by exploiting the supposed greater intelligibility of images. Bauhaus graphic designers were concerned with the illogical superfluity they diagnosed to be inherent in typographic convention, and believed that typographic arrangement could exploit innate faculties of optical reception. The idea that images might be a way of bypassing the pernicious distortions of natural language was taken up by Moholy-Nagy and Roh, who asserted the world itself to be intelligible as language and therefore transcribable in photography.

Central to these projects was the sense that languages brought with themselves world-views, which shape our understanding. Thus, improved communication systems are sought that can access the referent without distorting mediation. Saussure noted that communication through gesture may appear to involve a 'natural' bond of signifier and signified. As mentioned above, the relation of a gesture to meaning was according to Ogden and Richards an

‘immense superiority in efficiency’ over the symbols of everyday language. In contrast, Saussure argued that it is only when such gestures become conventional that the seemingly motivated sign can be widely understood, can become semiotically efficient.⁸⁷ As we saw with Isotype, iconism (as a ‘motivated’ or ‘simulative’ process) gets absorbed into convention. It is the same for the photograph. Contrary to Moholy-Nagy’s assertion, the ‘real’ is entirely ambiguous. The reality that photography captures is mute. The ability of the camera to record without prejudice that which falls before its lens becomes mistaken for an ability to mechanically produce meaningful statements. In response, we can again borrow a quip, this time from Rorty, ‘the world is out there, but descriptions of the world are not.’⁸⁸

⁸⁷ Saussure, *Cours de linguistique*, p. 100–101.

⁸⁸ Richard Rorty: *Contingency, Irony, and Solidarity*. Cambridge: Cambridge University Press, 1989, p. 5.