OTTO NEURATH'S ISOTYPE AND THE RHETORIC OF NEUTRALITY

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ABSTRACT Based on the modernist belief in universal, objective and neutral communication, Otto Neurath's Isotype sought to provide a pictorial language system that transcends linguistic and cultural barriers. This essay attempts to do a rhetorical analysis of Isotype, while recognizing that the underlying modernist principles are an unattainable dream. Employing Robin Kinross' notion of "rhetoric of neutrality" as a central theoretical concept, this essay gathers relevant theoretical concepts from rhetorical studies and linguistics, applying them into the analysis. The essay analyzes Isotype in two phases. First, it addresses the rhetorical aspects embedded in Isotype such as stylistic choices, value systems, political or cultural assumptions and visual arguments. Second, it examines how Neurath actively employs the rhetoric of neutrality with simplified form, limited colors, typeface and a generic quality and clustering of pictorial symbols to enhance objective and neutral properties of Isotype.

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In the history of graphic design, there have been attempts to create a pictorial language system that solves the problem of 'babelization' in verbal language. Isotype, which stands for International System of Typographic Picture Education, is a representative example of those attempts. It is a system of pictorial symbols designed by the Viennese philosopher and social scientist Otto Neurath for the purpose of communicating social and economic information to a general public. It has been applied in books, posters, museums and educational materials. Neurath's emphasis on the power of vision, and his belief that the system of pictorial language can provide a universal medium of communication that transcends the limits of language, encouraged him to develop Isotype.

Isotype is a realization of Neurath's philosophical background, logical positivism. As a member of the Vienna Circle, Neurath shares a common philosophical belief with a group of philosophers such as Moritz Schlick, Rudolf Carnap, Herbert Feigl, Hans Hahn, Viktor Kraft and Friedrich Waismann, who contributed to founding logical positivism in the 1920s and 1930s. "Logical positivism brought together two philosophical attitudes that had previously been contradictory: rationalism, which studies reality through logic, geometry and mathematics, rather than observation; and empiricism (or positivism), which claims that the only access to knowledge is through direct human observation." Neurath integrates rationalism and empiricism by codifying empirical experiences to symbolic logic with recourse to a pictorial symbol system called Isotype.

Neurath holds the conviction that a universal pictorial language system is something attainable and will enhance the efficiency of communication. In terms of the historical context of graphic design, his conviction is grounded in the modernist faith in universality, objectivity and neutrality in communication. Under the influence of Modernism, graphic design views communication as an objective process that involves "the scientifically predictable transmission of meaning." For objective communication, designers seek a universal vocabulary of visual forms based on clarity, unity and rationality. To create a universal visual form, the modern graphic designer eliminates all the nonessential elements such as historical associations, personal expression, styles and decoration to purify the design only through the most basic elements. Elimination of all the expressive components renders modern graphic design neutral.

However, both Neurath's conviction and the modernist ideals that provide a philosophical ground for it have been questioned by subsequent generations of designers and writers. For example, Ellen Lupton criticizes and challenges the modernist belief in universality, neutrality and objectivity in communication that underlies Isotype by distinguishing the key notion in her discussion, interpretation, from perception.³ She states that "in the spirit of interpretation, meaning is not an innate quality of forms or automatic reaction of the brain; it is discovered by relating signs to one's own personal and cultural experience, and to other signs." Hence, the notion of "interpretation" allows us to conceive signs not as something "absolute, neutral, and fixed," but as something "in historical flux." ⁵

something "in historical flux."⁵

While Lupton's discussion centers on the analysis of Isotype, Robin Kinross⁶
broadens the range of the discussion into the realm of information design. He discusses the rhetorical aspects in British and Dutch train timetables as an example of information design in general, and demonstrates that the belief of modern design in neutrality is not tenable. He argues that nothing is free of rhetoric since "visual manifestations emerge from particular historical circumstances," and therefore, "ideological vacuums do not exist."⁷ Borrowing the term, 'interlarding,' from Gui Bonsiepe, Kinross indicates how information is "interlarded with rhetoric to a greater or lesser degree."⁸ "Pure information exists for the designer only in arid abstraction. As soon as he begins to give it concrete shape, to bring it within the range of experience, the process of rhetorical infiltration begins."⁹

An important point that should be noted in Kinross' discussion is that he uses the

2—McCoy, Katherine and Michael McCoy. 1990. The New Discourse. In *Cranbrook*

Design: The New Discourse. New York,

1-Lupton, Ellen. 1989. Reading Isotype.

In Design Discourse: History / Theory / Criticism. Chicago, IL: University of

Chicago Press, p. 146.

NV: Rizzoli

- 3—Lupton, Reading Isotype, p. 146.
- 4-Lupton, Reading Isotype, p. 148-149.
- 5—Lupton, Reading Isotype, p. 149.
- 6—Kinross, Robin. 1984. The Rhetoric of Neutrality. In *Design Discourse: History / Theory / Criticism*. Chicago, IL:University of Chicago Press, p. 138.
- 7—Kinross, The Rhetoric of Neutrality, p. 143.
- 8—Kinross, The Rhetoric of Neutrality, p. 131.
- 9—Bonsiepe, Gui. 1999. Visual/Verbal Rhetoric. In *Looking Closer 3: Classic Writings on Graphic Design*. New York, NY: Allworth Press, p. 170.

phrase, "rhetoric of neutrality," not only as the title for his essay but also as the central notion in his argument. Concluding the essay, he states that so "one arrives again at the rhetoric of neutrality. If nothing can be free of rhetoric, what can be done to *seem* free of rhetoric? The style (for such it was) of the HfG Ulm¹⁰ was one response." By this, he means that the style of the HfG Ulm, one of the representative centers of modern design, embodies what seemingly looks free of rhetoric, in other words, the rhetoric of neutrality.

Through the convergence of the discussions by Bonsiepe, Lupton and Kinross, it has been fully noted that not only Isotype or information design but the entire area of graphic design is always infiltrated by rhetoric, making the goal of modern design—universal, objective and neutral communication—something that cannot be accomplished. While Lupton focuses on bringing some rhetorical aspects in Isotype to our attention, Kinross uncovers the rhetoric of neutrality behind the mask of universality in information design and ultimately modern design.

The door has just opened. The link between rhetorical theories and graphic design has been established. It is time for more in-depth discussion of not only what rhetorical theories are relevant and can be added to the notion of the rhetoric of neutrality, but also how rhetorical theories can expand the notion. Therefore, the purpose of this essay is to identify those relevant rhetorical theories and build on the notion of the rhetoric of neutrality. The scope of this essay is limited to Isotype since, as a forerunner of information design and culmination of modern design, it is a well-established representation of the neutral rhetoric of modern design. To begin with, this essay discusses rhetorical concepts such as: transparency and opacity; Richard Lanham's distinction between looking through and looking at; Michael Reddy's conduit metaphor; and Roland Barthes' naturalization and myth in conjunction with the notion of the rhetoric of neutrality. Then, the essay examines the elements of Isotype that construct the rhetoric of neutrality. This essay aims to initiate a channel between the disciplines of graphic design and rhetoric through which they can communicate with each other.

THEORETICAL CONCEPTS

To build a robust notion of the rhetoric of neutrality, examination of relevant theoretical concepts is important. The relevant rhetorical concepts are transparency, opacity, the distinction between looking through and looking at, conduit metaphor, naturalization and myth. Other than the concept of conduit metaphor, which is taken from linguistics, the concepts are from rhetorical studies or at least closely related to it. Conduit metaphor is used with other concepts in this essay since it is also useful in fleshing out the notion of the rhetoric of neutrality. By including the linguistic concept, this essay not only broadens but also deepens the discussion of the central premise of this essay. The concepts are discussed one by one and then integrated.

Transparency/opacity and looking through/looking at

Rhetorician James Jasinski discusses that the concept of *transparency* comes from critics' persistent tendency to "*look through* the text rather than fix their analytic gaze on it." In other words, our habitual inclination to look through the text, overlooking the surface of the text to be looked at, makes the text itself transparent, and therefore, invisible to us. Although Jasinski's definition of the term deals mainly with verbal texts, transparency is a widely applicable notion that goes beyond the realm of writing. He confirms this applicability, emphasizing that "the idea of the transparent text is not unique to the field of rhetorical studies; it has deep roots in American thinking about political discourse and rhetorical style:"¹³

- 10—HfG Ulm stands for the Hochschule für Gestaltung Ulm, a design institution set up in the early 1950s to continue the Bauhaus tradition.
- 11—Kinross, The Rhetoric of Neutrality, p. 143.

12—Jasinski, James. 2001. Sourcebook on Rhetoric: Key Concepts in Contemporary Rhetorical Studies. Thousand Oaks, CA: Sage Publications, p. 591.

13-Jasinski, Sourcebook, p. 591.

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14—Lee, Donald S. 1982. Transparency of the Symbol. *Philosophy and Rhetoric*, 15.2, p. 126.

15—Lee, Transparency of the Symbol, p. 126.

16—Aristotle. 1984. Rhetoric. New York, NY: Modern Library, p. 1404b.

17—Lanham, Richard. 2003. Analyzing Prose. New York, NY: Continuum, p.189.

18—Lanham, Analyzing Prose, p. 191, 206.

19-Lanham, Analyzing Prose, p. 205.

20—Lanham, Analyzing Prose, p. 192-193, 208

21—Lanham, Analyzing Prose, p. 191.

22—Lanham, Analyzing Prose, p. 193.

23—Lanham, Analyzing Prose, p. 193 (for a figure that illustrates this spectrum, see this page).

24—Lanham, Analyzing Prose, p. 209 (for a figure that illustrates this matrix, see this page). Donald S. Lee, a professor of philosophy, also discusses the notion of transparency, broadening the range of application to symbols in general. Pointing out the transparent quality of symbols, he also posits "transparency is a matter of seeing 'through' the symbol to something else." ¹⁴ He then regards transparency as a medium that exists between the seer and the seen object, separating them from each other. At a glance, his comparison of the transparency to the medium seems contradictory to the very notion of transparency itself. Nevertheless, the comparison makes sense since text and symbols mediate between the reader and meaning of the text, or between the seer and the seen object. This becomes more obvious with the notion of *opacity* which is the opposite of transparency. Lee continues, that as "*purely* transparent its physical presence has no important effect on that which is seen. If the medium creates an effect by distortion or opacity, then to that extent it falls short of transparency." ¹⁵ In short, transparency and opacity are the inverse of each other.

Lee's discussion of transparency and opacity is further developed by rhetorician Richard Lanham who discusses them in conjunction with the notion of looking through and looking at, and the issue of style. He prefaces his own discussion with Aristotle's notion of clarity. Aristotle claims that style "to be good must be clear, as is proved by the fact that speech which fails to convey a plain meaning will fail to do just what speech has to do."16 Lanham indicates that the "long-standing argument for styles that don't show, that are not noticed"¹⁷ originates from Aristotle's concept of clarity. On the basis of clarity, the ideal role of style is to convey a meaning or content naturally, minimizing verbal distortion. Emphasizing the concept of clarity, according to Lanham, Aristotle advocates the transparent and neutral theory of language. 18 For Aristotle, the language should be transparent or invisible, and subsequently make the contents as clear as possible. Consequently, clarity is synonymous with transparency. As Lanham indicates, Aristotle reduces the issue of style to "a simplistic on-off switch" of, at and through, and his stylistic point of view produces and disseminates a dichotomized set of concepts-at/through, style/content, medium/message-that dominate our way of thinking.²⁰ Lanham also points out that Aristotle even raises the set of concepts to the ethical dimension by equating unnoticeable style and noticeable style with virtue and vice. 21 Lanham adopts the notion of looking through and looking at which is an ageold distinction made by many other theorists, including Aristotle, but he rejects the Aristotelian dualistic approach to the concepts.

Lanham questions Aristotle's moralized dichotomy of transparency/opacity and looking through/looking at with nothing in between. He argues that the "harsh simplicity of the At/Through choice reveals a fundamental truth about how we read. Yet it is not the whole truth. Our response to a verbal surface varies in self-consciousness by degree, too; it does not simply click on or off." He resolves the problem of Aristotle's simplified model with "a spectrum of self-consciousness for verbal styles which measures the whole range from transparent to opaque." ²³

Based on the self-consciousness spectrum, Lanham suggests a more complex matrix. The matrix is composed of two spectrums of 'text' and 'perceiver'. First, on the spectrum of text, he discusses how the original self-consciousness spectrum works in terms of literary genres such as prose and poetry. On this spectrum, prose, which encourages readers to look through the text, corresponds with transparency, while poetry, which encourages readers to look at the text, corresponds with opacity. Second, on the spectrum of perceiver, he illustrates how the original spectrum works in terms of who perceives the text. Usually, common readers tend to look through text to focus on meanings in the text, while critics tend to look at the text itself to critique it. In other words, common readers correspond with transparency while critics correspond with opacity. The two spectrums parallel each other.

Lanham states that the "matrix provides a framework for plotting both of these form/content definitions and reconciling them. At the transparent side of the matrix,

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Since the perceiver is looking At the verbal surface and not Through it, that surface is the content." ²⁶ Poetry is a good example of the opaque end of the continuum since the formal surface level plays a critical role in poetry. Lanham argues that on the text spectrum, "an opaque style *is* the subject, the thing imitated and gazed at, the referent reality. Language has become its own subject, maximized its self-conscious self-reference." ²⁷ On the perceiver spectrum, we can choose to look at a style, thus becoming literary critics rather than common readers, and vice versa. ²⁸

Style/substance

As evident so far, the discussion of transparency and opacity and looking through and at ultimately brings us to a more fundamental issue of style and substance. In relation

form and content are totally discrete."25 Literary genres such as prose are good examples

of this end of the continuum. "At the opaque extreme, form and content are one.

25—Lanham, Analyzing Prose, p. 217.

26—Lanham, Analyzing Prose, p. 217.

27—Lanham, Analyzing Prose, p. 217.

28-Lanham, Analyzing Prose, p. 209.

to the two pairs of the concepts discussed earlier, graphic designer Andrew Blauvelt indicates that the dualistic position is embedded in the pair of style and substance as well, suggesting that debates "about style usually invoke dualisms such as form/content and style/substance." As Lanham disagrees with Aristotle's dichotomous approach, Blauvelt also criticizes the dualism between style and substance. He further argues that these "artificial dichotomies divorce the terms from one another, giving the mistaken impression that there is form independent of content, or style in lieu of substance. In fact, since each term is married to the other, a relationship must be established and the terms negotiated." In other words, Blauvelt emphasizes this inseparability of form and content, or style and substance by claiming that "form is legitimized on the basis of

content—form is truthful or aesthetically valid when it faithfully represents content."31

Blauvelt further explains that "the distrust of style as false, shallow and meaningless" goes back to modern functionalism. This modernist notion of "style that diverts us from the truth with its seductive surface" has indoctrinated us. Arguing that the modernist "notion of deceptive forms (style) on the surface and essential contents (substance) at the core is outmoded for contemporary graphic design," he asserts that the dichotomy based on Modernism needs to be reconsidered and our prejudice about the concept of style, form and content needs to be reconfigured. Refusing the outdated notion of style in Modernism, he argues that style is "not governed by functionalism's desire to reflect an internal truth. Style engages us on the surface—it is about appearance—but this surface is neither the glossy reflection of adoring consumers seduced by their own image nor a layer of camouflage hiding the truth. Rather, style is an outward sign of difference that gains its uniqueness in relation to other styles." Hence, his definition of style as "a code of communication, not for the transparent reflection of content but as a signifier of taste" rehabilitates the long-ignored importance of style by breaking down the dichotomy between style and substance.

29—Blauvelt, Andrew. 1995. Under the Surface of Style. Eye, 5.18, p. 64.

30—Blauvelt, Under the Surface of Style, p. 64.

31—Blauvelt, Under the Surface of Style, p. 64.

32—Blauvelt, Under the Surface of Style, p. 64.

33—Blauvelt, Under the Surface of Style, p. 64.

34—Blauvelt, Under the Surface of Style,

35—Blauvelt, Under the Surface of Style, p. 68.

Conduit metaphor

The *conduit metaphor*, coined by linguist Michael J. Reddy, has influence upon information studies in "modeling what we believe the terms, 'information,' 'communication' and even 'language,' mean and signify." Reddy explains how the conduit metaphor works in everyday language by giving some examples as follows: "Try to *get* your thoughts *across* better," "None of Mary's *feelings came through to me* with any clarity," "You still haven't *given me* any *idea* of what you mean." He argues that "none of these expressions is to be taken completely at face value" since "no one receives anyone else's thoughts directly in their minds when they are using language" and "Mary's feelings can be perceived directly only by Mary but they do not really "come through to us" when she talks." However, this is the way English speakers speak the language. As Reddy states, these examples illustrate a particular viewpoint about language that "humans place their internal thoughts and feelings within the external

36—Day, Ronald E. 2000. The "Conduit Metaphor" and The Nature and Politics of Information Studies. *Journal of the American Society for Information Science*, 51.9, p. 806.

37—Reddy, Michael J. 1979. The Conduit Metaphor—A Case of Frame Conflict in Our Language about Language. In Ortony, Andrew, editor. Metaphor and Thought. Cambridge, UK: Cambridge University Press, p. 286-287. 38-Reddy, The Conduit Metaphor, p. 288.

signals of the language."38

Reddy defines the conduit metaphor by describing "four categories that constitute the major framework" of the notion. First, "language functions like a conduit, transferring thoughts bodily from one person to another." Second, "in writing and speaking, people insert their thoughts or feelings in the words." Third, "words accomplish the transfer by containing the thoughts or feelings and conveying them to others," Fourth, "in listening or reading, people extract the thoughts and feelings once again from the words."39 Basically, the conduit metaphor assumes that words have insides and outsides. Therefore, thoughts, meanings and ideas can be inserted to the words, transferred to other people, and then other people can extract the thoughts from the words.

Reddy contrasts the "conduit metaphor model of communication" with the "toolmaker's paradigm" based on radical subjectivity. According to the toolmaker's paradigm, there is no such thing as a transparent conduit in communication. Such an ideal communication through the conduit metaphor model is not possible since the internal thoughts, feelings and perceptions cannot be sent to anyone by any means that we know of. 40 Although both frameworks describe a model of human communication, they take totally different positions. While the conduit metaphor model assumes that a receiver can make an exact duplication of a sender's message in his or her mind through language as a conduit, the radical subjectivist paradigm denies the existence of that kind of communication.

Reddy argues that the conduit metaphor model of communication "objectifies meaning in a misleading and dehumanizing fashion."41 He continues to argue that it "influences us to talk and think about thoughts as if they had the same kind of external, intersubjective reality as lamps and tables."42 Another problem of the conduit metaphor is that the "function of the reader or listener is trivialized" because he or she becomes a passive message receiver based on the assumption of the model. On the other hand, the radical subjectivist paradigm assumes that readers and listeners are active participants who reconstruct the meaning of the message. Comparing the two conflicting models, Reddy emphasizes that we have neglected the "crucial human ability to reconstruct thought patterns on the basis of signals and this ability founders,"43 adhering to the mechanistic view of language and communication inherent in the conduit metaphor.

Naturalization and myth

Roland Barthes, a French literary critic and semiotician, also indirectly discusses the issue of transparency and the rhetoric of neutrality through his concept of naturalization and myth. Before talking about naturalization and myth, he mentions two levels of meaning in images. He argues that photographic images develop a supplementary message in addition to the analogical content itself, which is what is commonly called the style of the reproduction; a second meaning that consists of a certain 'treatment' of the image (result of the action of the creator) as its signifier and a certain 'culture' of the society—whether aesthetic or ideological—that receives the message as its signified.⁴⁴ In other words, photographic images comprise two messages: "a denoted message, which is the analogon itself, and a connoted message, which is the manner in which the society to a certain extent communicates what it thinks of it."45 He claims that this duality of messages is "evident in all reproductions other than photographic ones: there is no drawing, no matter how exact, whose very exactitude is not turned into a style (the style of 'verism'); no filmed scene whose objectivity is not finally read as the very sign of objectivity."46 Barthes regards this duality in images as the "photographic paradox" which comes

from the "co-existence of two messages, the one without a code (the photographic analogue), the other with a code (the 'art,' or the treatment, or the 'writing,' or the rhetoric, of the photograph)."47 He uses the term, 'paradox,' because the connoted (or

39-Reddy, The Conduit Metaphor, p. 290.

40-Reddy, The Conduit Metaphor, p. 293.

42-Reddy, The Conduit Metaphor, p. 308.

41-Reddy, The Conduit Metaphor, p. 308.

43-Reddy The Conduit Metaphor n. 310

44-Barthes, Roland. 1977. Image-Music-Text. New York, NY: Hill and Wang, p. 17.

45-Barthes, Image-Music-Text, p. 17.

46-Barthes, Image-Music-Text, p. 17

47-Barthes, Image-Music-Text, p. 19

coded) message develops on the basis of a message without a code. Accordingly, the connoted message can be 'innocented' through the photograph's denotation so that the connotation can assume so completely the 'objective' mask of denotation.⁴⁸ This is how the typical process of 'naturalization of the cultural' occurs.⁴⁹ Through the naturalizing process, "the denoted image naturalizes the symbolic message, innocents the semantic artifice of connotation."⁵⁰

Another central concept of Barthes, myth, is discussed in a close relationship with naturalization. He indicates that the "purely 'denotative' status of the photograph, the perfection and plenitude of its analogy, in short its 'objectivity,' has every chance of being mythical."51 In other words, through a naturalizing process, "denotative signs can be manipulated to hide connotative meanings by obscuring their historical origin and making them seem natural."52 The continuous naturalizing process creates myth, and "myth has the task of giving an historical intention a natural justification, and making contingency appear eternal."53 "Society constantly uses the first system of human language to produce systems of secondary meanings, and the resultant accumulation of connoted signifiers solidifies into ideology."54 Therefore, I can infer that the previous discussion of transparency and looking through overlaps with Barthes' discussion of naturalization and myth in the sense that transparency and looking through are byproducts of naturalization and myth. In other words, an image becomes transparent and, subsequently, we look through the image when the image is naturalized, and the transparent nature of the image and the practice of looking through are maximized when the continuous naturalization solidifies into a myth.

Integration of the theoretical concepts

So far, I have discussed several theoretical concepts that have a close relationship with the notion of the rhetoric of neutrality. Although there are slight differences, transparency, looking through, conduit metaphor, naturalization and myth are grounded in similar ideas, while opacity, looking at and radical subjectivist paradigm also share some similarities. The first group of concepts addresses our constant effort to shift something cultural to natural; the second group shows the counteraction to the effort. The two clusters of concepts create a conflict between concealment and revelation.

As discussed so far, the two groups of concepts have been considered in a dichotomized or dualistic way, and additionally, value judgments have been made about them. Looking back, we can see that our dominant way of thinking based on the Platonian-Aristotelian system and Modernism requires us to choose one over the other; transparency over opacity, looking through over looking at, substance over style and conduit metaphor over radical subjectivist paradigm. The reason we strive to accomplish transparency in language by encouraging people to look through the verbal surface, and why we emphasize substance, thereby resisting self-consciousness about style, is because the cultural heritage of the Platonian-Aristotelian system of thinking urges us to protect its specific conception of the self and of the world's reality.⁵⁵ As a rejection to this, Reddy criticizes the mechanistic quality of the conduit metaphor, which is unable to explain a human agency that plays a critical role in communication. In addition, Lanham's modification of Aristotle's simplified either/or shift between through and at to a full spectrum with degrees of self-consciousness is also the same kind of gesture against the Platonian-Aristotelian system embedded within us.

To summarize, the notion of the rhetoric of neutrality shares a common ground with transparency, looking through, conduit metaphor, naturalization and myth, and can provide a critical framework when integrated. We are aware that a kind of paradox resides among these concepts. The naturalizing process never reaches an end, but only reveals that things cannot be fully naturalized, and therefore, they are not transparent in the end. The unattainable dream of transparency and looking through is unveiled by the constant operation of their counterparts such as opacity and looking at caused by

- 48-Barthes, Image-Music-Text, p. 21.
- 49-Barthes, Image-Music-Text, p. 26.
- 50-Barthes, Image-Music-Text, p. 45.
- 51-Barthes, Image-Music-Text, p. 19.
- 52—Macey, David. 2001. *Dictionary of Critical Theory*. London, UK: Penguin Book, p. 92.
- 53—Barthes, Roland. 1957. *Mythologies*. New York, NY: Hill and Wang, p. 142.
- 54—Macey, Dictionary of Critical Theory, p. 91.

55—Lanham, Analyzing Prose, p. 205.

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rhetorical infiltration. By integrating these ideas into one unifying concept, the rhetoric of neutrality can provide a solid theoretical tool for us breaking down the myth of Isotype and modern design. Especially, the paradoxical quality captured by the relevant concepts is the essential aspect that lies at the heart of the rhetoric of neutrality.

In a sense, the paradoxical quality is inherent in the rhetoric of neutrality itself. The rhetoric of neutrality can be defined as a rhetorical strategy that a rhetor employs to make something look objective and neutral. However, as the juxtaposition of the two incompatible words implies, the strategy is doomed to fail. Rhetoric and neutrality cannot coexist. Hence, the rhetor cannot achieve neutrality since the rhetoric of neutrality is just a kind of rhetoric in which the rhetor's striving for neutrality ends up by revealing the impossibility of the dream. Therefore, the belief of objectivity and neutrality that resides in Isotype and modern design can be refuted by the very paradoxical nature of the rhetoric of neutrality, which is a defining premise of Modernism. This is why the rhetoric of neutrality can become a tool to break down the myth of modern design.

ANALYSIS OF ISOTYPE

Keeping the previous discussion of the theoretical concepts that revolve around the rhetoric of neutrality, I now analyze Isotype from a rhetorical perspective. It should be noted that I assume that Neurath's Isotype does not stop at having some rhetorical aspects, but actively employs the rhetoric of neutrality. Neurath employs the rhetoric of neutrality in the modernist belief that neutral communication can be realized through it. Whereas Lupton focuses on discussing some rhetorical aspects in Isotype, the aim of this essay is to reveal the more fundamental rhetorical dimensions artfully hidden in Isotype. The notion of the rhetoric of neutrality, adopted from Kinross, is now used to discuss Isotype's hidden rhetorical dimensions.

The historical context in which Isotype is situated offers a setting for the analysis. As the first step of the analysis, I attempt to undermine Neurath's belief that Isotype is a neutral and transparent representation of reality, free of rhetoric, by exploring its rhetorical aspects in detail. Next, to see whether the rhetoric of neutrality is embodied in Isotype, I examine what design techniques are adopted, then, I integrate the analysis with the previously discussed theoretical concepts.

Rhetorical aspects of Isotype

Through Isotype, Neurath seeks to create a neutral and objective pictorial symbol system. Such intent implies that Isotype can be free of rhetorical infiltration, and therefore, does not involve stylistic choices. However, some of his Isotype charts present a particular style that reflects a particular time period. For example, the Isotype symbol for cars (figure 1) reflects a particular car style in the 1920s and 1930s. It is neither a neutral nor a universal symbol of a car that transcends a particular time period because it instantly reminds us of the particular historical period, referring to the style and taste of that era. It might function as a somewhat objective symbol for people in that specific time period, but not to us today as surrounded by all different kinds of car styles. The telephone symbol (figure 2) also shows a particular style of telephone used in 1920s and 1930s.

The apparent style that exists in the Isotype symbols reveals that Isotype is an outcome of the particular time and situation in which Neurath was situated, rather than an objective representation of reality. The atmosphere of the particular era and culture casts an inevitable shadow on Isotype through stylistic choices. In a sense, this is where Barthes' notion of a connoted message applies. As a connotative meaning triggered by

the treatment of an image always lurks under a denotative meaning and allows rhetorical infiltration, particular styles of various objects lurk under the Isotype symbols and reveal a rhetorical dimension.

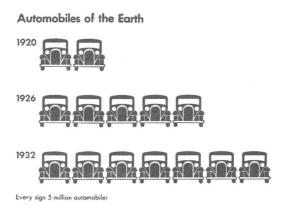


Figure 1 "Automobiles of the Earth" © University of Reading

France 1914 1937 1937 1937 1937 1937 1937



Figure 2 "Telephones and Automobiles per 200 Population" © University of Reading

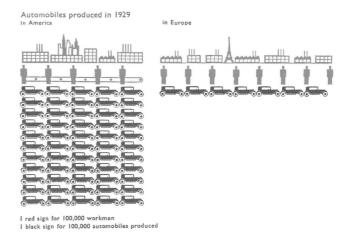


Figure 3 "Automobiles Produced in 1929" © University of Reading

The car symbol (*figure 3*) also reflects a specific car style in the 1920s and 1930s. What should be noted here is that the car symbol is different from the one in Figure 1. While the previous one is a front view of a car, the one in Figure 3 is a side view. This weakens Neurath's belief in the objectivity of Isotype. If an object like a car is represented in different ways, depending on which viewpoint is taken, an objective representation is not possible. Each represents a particular point of view. As Lupton discusses, the inconsistency problem in Isotype also raises the same problem. For example, as shown in Figure 4, Isotype inconsistently employs different symbols for a man. As Lupton indicates, although Neurath tried to abide by the principle of consistency, Isotype could not have been consistent because "it was a huge sprawling experiment." To make matters worse, it had been developed over a period of twenty-five years, and wartime "political pressures forced him to relocate several times, the result being changes in staff and loss of documents."

56—Lupton, Reading Isotype, p. 154.

57-Lupton, Reading Isotype, p. 153-154.

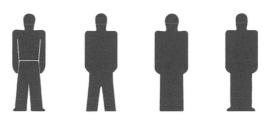


Figure 4 Inconsistency in Isotype pictorial symbols © University of Reading

In addition to the stylistic choices, some Isotype charts exhibit a particular value system with political and cultural assumptions. The Isotype chart (figure 5) defines marriage as a union of a man and woman, refusing to include the same-sex marriage within its boundary. Our conception of marriage is reinforced by the Isotype chart that embeds a particular value system in its form. The issue of race is also marginalized in

this chart since it assumes that all German men and women are white.

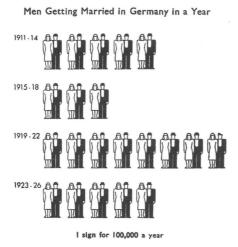


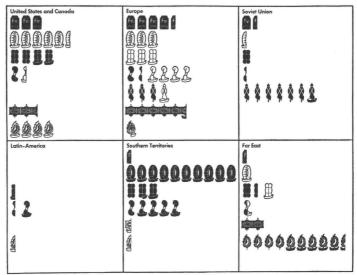
Figure 5 "Men Getting Married in Germany in a Year" © University of Reading

Some Isotype charts make comparisons among different countries. For comparisons, Neurath transforms a world map into an arrangement of countries called the "six great divisions of the earth" (figure 6). What is noticeable in these divisions is that they are not commensurate. While some belong to the political category of country, others belong to the geographical category of continent or region. This gives more weight to the individual countries than to the continents. Consequently, some parts of the earth are emphasized while others are trivialized.

Another dimension to be considered is that the two levels in the divisions of the world create a visual hierarchy, putting Canada, U.S.A., Europe and Soviet Union over the countries in the lower level. The 'Far East' maximizes the hierarchy because of its name and its relative position in the set of divisions. The Far East is to be neglected because its location, the lower right corner, is where our eyes go last. Further, the Far East is a highly ideological term that comes from the Western point-of-view. In other words, it might not be 'Far' if the 'East' is viewed as the center of the earth. So, Neurath's divisions of the earth illustrate how a particular ideology or political assumption infiltrates the map frequently used for Isotype charts. Actual Isotype charts that employ the map frame are shown in Figures 7 and 8.

CANADA, U.S.A.	EUROPE	SOVIET
MIDDLE AND SOUTH AMERICA	AFRICA, SOUTH ASIA, AUSTRALIA	FAR EAST

Raw Materials

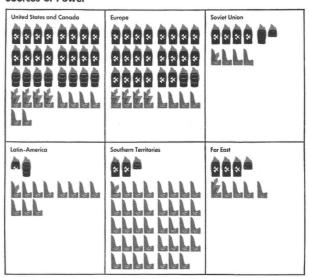


Each full coloured symbol represents 10% of world production on ship: exported outlined, on white ship: imported pigi iron, rubber, cotton, woal, linen, rayon, silk

...... **a**

Figure 7 "Raw Materials" @ University of Reading

Sources of Power



Each symbol represents 25,000 million kilowatt hours produced annually

sources of power coal, petraleum, water with lightning - flash: being used

Figure 8 "Sources of Power" @ University of Reading

. .

Charles Kostelnick brings up the "rules of inclusion and exclusion," indicating that designers "control what is and what is not visualized, and that control has rhetorical consequences." The "rules of inclusion and exclusion" are originally discussed by Marthalee Barton, who considers maps as an ideological medium. She references Marxist literary critic Raymond Williams' discussion that in the hegemonic process "certain meanings and practices are neglected and excluded... reinterpreted, diluted, or put into forms which support or at least do not contradict other elements within the effective dominant culture. So, the rules of inclusion "determine whether something is mapped, what aspects of a thing are mapped, and what representational strategies and devices are used to map those aspects" to "legitimate dominant interests. Rules of exclusion and repression are about what is to be excluded or repressed to serve dominant interests. The rules are obviously present in Isotype since it includes or excludes certain aspects of a concept to legitimize a particular ideology of the dominant culture. As discussed so far, Isotype charts serve as a medium to show a particular value system and political or cultural assumptions of society

58—Kostelnick, Charles. 2004. Melting-Pot Ideology, Modernist Aesthetics, and the Emergence of Graphical Conventions: The Statistical Atlases of the United States, 1874-1925. In Hill, Charles A. and Marguerite Helmers, editors. *Defining Visual Rhetorics*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers, p. 231-232.

59—Barton, Marthalee. 1993. Ideology and Map: Toward a Postmodern Visual Design Practice. In Blyler, Nancy R. and Charlotte Thralls, editors. Professional Communication: The Social Perspective. Newbury Park, CA: Sage Publications, p. 53.

- 60-Barton, Ideology and Map, p. 53.
- 61-Barton, Ideology and Map, p. 54-55.
- 62-Barton, Ideology and Map, p. 59.

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In War Seasonal Fluctuations Disappear
Quarterly Coal-Production in the United States
1914 1st 父父父父父父父父父
  2 nd 父 父 父 父 父 父 父 父
 4th 父 父 父 父 父 父 父 父 父 父 父
1917 1st 公 公 公 公 公 公 公 公 公 公 公 公 公 公
War 2 nd 삿 삿 삿 삿 삿 삿 쏘 삿 父 父 父 父 父 父
 2 nd 父 父 父 父 父 父
 1932 1st 父父父父父父父父父
 2 nd 父 父 父 父 父 父
 3 rd 父 父 父 父 父 父 父
 1936 1st 父父父父父父父父父父
 4th 女 女 女 女 女 女 女 女 女 女 女 女
Each symbol represents 10 million short tons of coal, produced augrterly
```

Another rhetorical aspect of Isotype is that it presents some visual arguments. Although Neurath considers that Isotype conveys social and economic information, and therefore is free of argument, there are some Isotype charts that present particular viewpoints. As Robert J. Leonard argues, the Isotype chart (*figure 9*) shows how war decreased the seasonal fluctuations in coal production. As the title and visual pattern suggest, the fluctuation disappears at war time, 1917. This implies that the centrally controlled situation of the war, highlighted by visual anomaly, decreased the fluctuation,

63—Leonard, Robert J. 2001. "Seeing is Believing": Otto Neurath, Graphic Art, and the Social Order. *History of Political Economy*, 31, special supplement, p. 469. UTTO NEURATH'S ISOTYPE AND THE RHETORIC OF NEUTRALITY

64—Proctor, Robert N. 1991. Value-Free Science?: Purity and Power in Modern Knowledge. Cambridge, MA: Harvard University Press, p. 168. and therefore, played a positive role in solving the problem of the market system. Neurath was interested in economic issues. According to Robert N. Proctor, from "his studies of the Napoleonic and American civil wars, Neurath discovered certain inefficiencies in economies governed by free and unregulated markets." As a result, he becomes a supporter of economic planning and regulation as a solution to the inherent problem of the free market system.

As Leonard indicates, the chart (figure 10) illustrates how the traditional market system was maintained by destroying coffee stocks. The coffee symbol in flames visualizes the amount of coffee production that should be destroyed to maintain the market system. In this example, Neurath again illustrates the problem of the market system; that it cannot run smoothly without external involvement. Through this example, he again visually argues that planning and regulation are necessary to maintain the market system.

Figure 10 "Market Regulation by Destruction, Brazil 1927-1937" © University of Reading

Leonard's discussion of Isotype charts (*figures 9 and 10*) focuses on demonstrating that the two charts "bore an implicit critique of the market system and were intended to promote the need for planning." What I am trying to amplify in his thesis from a rhetorical perspective is that the charts are visual arguments that promote the necessity of a regulated and planned economic system. The visual arguments are additional evidence that reveals the rhetorical aspect of Isotype. Hence, Neurath's personal belief in economic and social issues is visually expressed in the Isotype charts. Indeed, the Isotype charts show that they are inseparable from Neurath's attitude or belief, shaped under the particular situation of the particular period.

The rhetoric of neutrality embedded in Isotype

Neurath's belief in an objective and neutral system of visual language has been partly undermined by disclosing some rhetorical aspects of Isotype. We are now

65-Leonard, "Seeing is Believing," p. 469.

aware that Isotype is not an international visual language system that makes bias-free communication possible. However, there is another rhetorical dimension in Isotype that should be a real focus of this essay.

This dimension goes beyond just revealing some rhetorical aspects of Isotype. As discussed earlier, it is about assuming that Isotype not only happens to have some rhetorical aspects, but deliberately employs the rhetoric of neutrality as a strategy to appear seemingly neutral in a more active sense. Based on this assumption, we can see Neurath as a rhetor. This conclusion is possible by realizing the inherent paradox in the rhetoric of neutrality and acknowledging that the modernist belief in the objectivity and neutrality of Isotype is simply a kind of ideology. The paradox and the ideological aspect of design have been recognized through history, especially through the current postmodern discourse in design. For instance, Victor Margolin's statement that all "communication is ideologically grounded, even if it is transmitted in forms that purport to be free of ideology" 6c confirms this argument.

The next step is a more systematic rhetorical analysis of Isotype in terms of the application of the rhetoric of neutrality. Before going into analysis, I briefly discuss the historical context in which Neurath designed Isotype.

66—Margolin, Victor. 1989. *Design Discourse: History / Theory / Criticism.*Chicago, IL: University of Chicago Press, p. 21.

Historical context

Visual language is "rhetorically charged because designers deploy it in specific situations to achieve certain ends." ⁶⁷ Isotype as a visual language is not an exception to the influence of a specific context and the rhetorical charge it provides. Indeed, Isotype was created as Neurath's attempt to meet particular exigencies of the 1920s. Design historian Philip B. Meggs indicates that "Neurath felt that the social and economic changes following World War I demanded clear communication to assist public understanding of important social issues relating to housing, health, and economics." ⁶⁸ Hence, the need for a comprehensive system had been raised in Central Europe by the particular context of the era, and this is one of the contexts that motivated Neurath to create Isotype.

From a narrower perspective, we can think about the postwar situation in Vienna, Austria where Neurath lived and worked. According to design historian Michael Twyman, "In Austria after the First World War there was much that needed to be done. With the collapse of the old Hapsburg Empire Vienna and Austria as a whole were in difficult straits. They were deprived of resources, there were shortages of food and housing which threatened to undermine public health, and inflation was running at an alarming rate. It is against this background that we have to see Otto Neurath's contributions to graphic design. He wanted to bring to the man in the street an awareness of the social and economic issues of the time in Vienna, and to draw attention to these by making comparisons between the present and the past and between Vienna and other cities." Accordingly, strong concerns about social and economic issues have been raised from the particular context of Vienna, and this is another exigency Neurath as a rhetor had to deal with.

On top of that, logical positivism, Neurath's theoretical ground, has an influence

on shaping the rhetorical context for Neurath himself. Formulated in 1920s and 1930s, logical positivism is based on the two major assumptions that direct observation is the sole means of access to knowledge and that logical analysis should be adopted to approach philosophical problems. Rejecting metaphysics and theology, he argued that a true science called "unified science" was to be sought in order to create a new modern life. Thus, logical positivism also provided a ground for Neurath's own rhetoric.

Visual elements that embody the rhetoric of neutrality in Isotype
In this part of the essay, the design techniques that Neurath employs to embody the rhetoric of neutrality in Isotype are analyzed and discussed. As shown in Figure 11, the readily noticeable feature of pictorial symbols in Isotype is that they take simplified

67—Kostelnick, Melting-Pot Ideology, p. 226.

68—Meggs, Philip B. 1998. A History of Graphic Design. New York, NY: John Wiley & Sons, Inc. p. 293.

69—Twyman, Michael. 1975. *Graphic Communication through Isotype*. Reading, UK: University of Reading, p. 8.

70-Lupton, Reading Isotype, p. 146.

71—Neurath, Otto. 1936. International Picture Language: The First Rules of Isotype. London, UK: Kegan Paul, Trench, Trubner & Co., Ltd, p. 27-28.

72—Neurath, International Picture Language, p. 28.

73—Neurath, International Picture Language, p. 66-67.

74-Lupton, Reading Isotype, p. 152.

75-Lupton, Reading Isotype, p. 152.

76-Lupton, Reading Isotype, p. 152.

and reductivist form and color. In terms of form, only minimal indispensable elements are selected and employed, avoiding additional ornamentation. Neurath mentions that "the value of teaching by pictures is that facts are put before the mind in a simple, straightforward way and are kept in memory." Believing the modernist phrase, "less is more," he argues that "a simple picture kept in the memory is better than any number of complex ones which have gone out of it." He applies the principle of simplicity in determining the number of symbols as well, arguing that a small number of good pictures lead to greater teaching effect and clearer memory.



Figure 11 Isotype pictorial symbols for men, women, cogwheels, vacuum cleaners, coffins, homes, and ships

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Lupton also discusses the simplified quality of Isotype, demonstrating that pictorial symbols of Isotype follow the rule of 'reduction' in the sense that they find the simplest expression of an object. 74 As the central techniques that embody the rule of 'reduction,' she points out 'silhouette' and 'flatness.' 75 As shown in Figure 12, Isotype eliminates 'interior detail' using silhouette and avoids perspective making objects appear two-dimensional for the simplest expression. 76

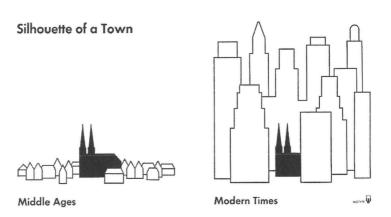


Figure 12 "Silhouette of a Town" @ University of Reading

The simplicity rule also applies to color. As Neurath indicates, there are seven major colors for use in Isotype; white, blue, green, yellow, red, brown and black. Some of them have a further division into dark and light color such as light and dark blue, or are mixed with other colors, as white and black to make grey, yellow and red to make orange etc.⁷⁷ Although other colors are often added, the main colors are black and white. Neurath states that it is better to use as small a number of colors as possible since most people do not have a delicate sense of color.⁷⁸

^{77—}Neurath, International Picture Language, p. 42.

^{78—}Neurath, International Picture Language, p. 44.

Figures 13 and 14 show how various visual elements of Isotype are stripped down to simplified forms and colors. In Figure 13, the visual elements such as clothes, weapons and personal ornaments are stripped away in the second row. Hence, we can distinguish the different ethnic groups only by their skin colors. In Figure 14, the distinction between ethnic groups is only made by color difference with the exception of the hat for Asians.

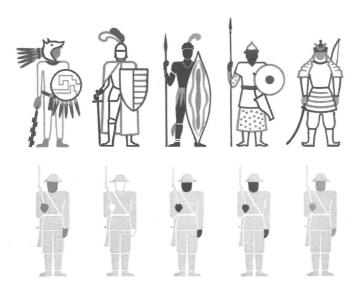


Figure 13 Simplification of Isotype © University of Reading

The typeface chosen for Isotype also adopts a simplistic model. Neurath chooses the geometric sans serif typeface, Futura, designed by Paul Renner in the 1920s. Futura has less room for expressing a particular style than serif typefaces and is consistent with the reductivist strategies of representation discussed so far. However, sans serif typefaces are not free of social and cultural implications. Lupton indicates that in the twentieth century, "sans serif typefaces have expressed the machine age. Traditional references to handicraft are stripped from the essential, geometric core of the alphabet." Kinross also claims that "the choice of typeface is often telling, in that it indicates the ideas and beliefs that inform the process of design." In spite of its desire for objectivity and neutrality, therefore, the choice of sans serf typefaces cannot be free of social and cultural implications. It is within the context of machine civilization and the "need to save labor, time, and money and to improve communication" brought about modern machine aesthetics. Neurath chooses Futura for Isotype under such circumstance.

To sum up, the rule of simplicity controls the forms and colors of pictorial symbols and typeface choice. This approach to design helps the rhetor, Neurath, to carry out the rhetoric of neutrality in Isotype. By deliberately eliminating all detail, Neurath strives to make Isotype look like an essential and objective medium of communication. Stylistic devices are minimized and only the core elements that purport to transcend cultural differences are adopted. In translating the rhetoric of neutrality as simplicity, Neurath seeks to create a transparent, objective and neutral system of visual language.

The issue of the simplified forms can be further discussed within the framework of the generic quality of Isotype pictorial symbols. As Lupton indicates, reduction gives an 79-Lupton, The Reading Isotype, p. 153.

80—Kinross, The Rhetoric of Neutrality, p. 135.

81—Kinross, The Rhetoric of Neutrality, p. 138.

82-Lupton, Reading Isotype, p. 153.

83-Lupton, Reading Isotype, p. 153.

image a generic status by eliminating details.⁸² Thanks to its reduced form, each Isotype pictorial symbol represents a class of objects, not any particular object.⁸³ As a result, the system constitutes a collection of homogeneous symbols, none of which is to be read in detail. The generic quality of Isotype pictorial symbols enhances their transparency. Pictorial symbols should function like a transparent medium that calls our attention to substance, rather than an opaque medium that calls attention to style. In other words, they are not to be looked at but to be looked through.

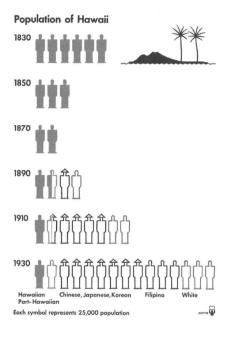


Figure 14 "Population of Hawaii" @ University of Reading

Through the arrangement of Isotype charts, the transparent quality of pictorial symbols is further strengthened. In Isotype charts, pictorial symbols are arranged horizontally or vertically, forming clusters of symbols. The arrangement in Isotype charts creates a kind of conflict between attention to individual pictorial symbols and attention to clusters of pictorial symbols. Nonetheless, because a large number of identical pictorial symbols are arranged in a group, our attention moves toward' the clusters of pictorial symbols after a relatively short period of attention paid to individual pictorial symbols. The clustering of pictorial symbols in an Isotype chart encourages readers to compare their relative size or amount. This process gives readers a sense that the Isotype chart displays quantitative and statistical information, and also encourages them to assume that Isotype charts present factual and innocent information. Consequently, the clustering enhances the degree of transparency, and encourages us to look through symbols. To summarize, in addition to simplified form, mimited colors and sans-serif typeface, the generic quality and the clustering of pictorial symbols also increase the transparency of Isotype and strengthens our belief that Isotype is an objective and neutral medium of communication.

Theoretical concepts and the rhetoric of neutrality in Isotype

The rule of simplicity, as a design principle applied to form, color and typeface choice in Isotype, is central to enhancing its transparent quality. By eliminating visual elements that would otherwise call attention to themselves, Neurath positions Isotype toward the transparent end in Lanham's spectrum of self-consciousness. The generic quality of Isotype pictorial symbols and our assumption that they provide quantitative and objective information, attained through the simplified form and symbol clustering, push Isotype much closer to the transparent end of the continuum.

By employing the design techniques, Neurath increases the transparency of Isotype, and encourages people to look through Isotype. His ideal for objectivity and neutrality motivates him to create a conduit named Isotype. In Barthes' terms, his striving for neutrality through Isotype is a naturalizing process of the cultural. The fundamental theme that resides in the clusters of the theoretical concepts is the ageold conflict between the utopian belief in neutrality and the rhetorical or ideological infiltration and between 'natural' and the 'cultural.' Isotype exhibits the modern movement toward the utopian belief in neutrality, and how it fails in the paradox of the rhetoric of neutrality.

CONCLUSION AND IMPLICATIONS

Analyzing the concept of Isotype rhetorically confirms that it is neither an objective nor a neutral communication system, but only pretends to be objective by employing the visual rhetoric of neutrality. The analysis also emphasizes that the paradox created by juxtaposing the two incompatible words, rhetoric and neutrality, is an essential aspect of the critical framework, as well as the very cause of the failure in the modernist ideal of universality, neutrality and objectivity. By examining several theoretical concepts that center on the rhetoric of neutrality and applying them to the rhetorical analysis of Isotype, not only is this paradox revealed but also the vocabulary to describe it is diversified.

As discussed, from a rhetorical point of view, Isotype is a highly deliberated pictorial language system that draws our attention to the seeming neutrality of the denotative level of meaning in order to hide the connotative meaning. Under the surface of the apparent neutrality, based on the simplified visual forms, Isotype hides political, social and cultural agendas. As detected through the rhetorical analysis of Isotype, there are connotative meanings such as a particular style or taste of an era, value systems, political assumptions and economic or social agendas hidden under the rhetoric of neutrality; we do not see the connotative meanings under the surface, and furthermore, we are not likely to be critical about a particular value, opinion or position that recurs at the level of connotative meaning.

Hiding through the rhetoric of neutrality has significant implications for communication in a political sense, and raises some important questions. As Neurath used the neutrality of Istoype to deliver social and political messages several decades ago, another designer might also use apparently neutral forms (such as graphs, charts or diagrams) to communicate what he or she intends or at least what is inevitably infiltrated by a certain kind of rhetoric, and therefore not neutral any more. This has significant consequences in a political world. The seemingly transparent system of visual communication might function as a manipulative tool to disguise politically charged messages as neutral, and serve to affect, change or bias people's attitude, viewpoint or opinion about an issue in a certain way.

Other than this, what are the consequences of the seeming neutrality in communication in a political world or in communication in general, and what is graphic

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designers' role in it? If we broaden these issues raised by the rhetorical analysis of Neurath's Isotype, what is graphic designers' role in our discussion of rhetoric, visual form and viewers' criticality? Is there an ethical dimension in this discussion? If yes, what is it, and what does it mean to graphic designers? The analysis of Otto Neurath's Isotype and the exploration of the rhetoric of neutrality put us in an even broader frame of mind that involves designers' intent and viewers' criticality, and encourages us to ask more questions.

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