IMAGES
AVANT LA LETTRE
THE MYSTERY OF INK BLOTS IN PSYCHOLOGY, DESIGN, AND ART

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The paper starts out with a figure of speech –*avant la lettre*– and points, through a review of literature, to a variety of disciplinary explanations regarding processes before language was ever spoken. This leads to three categories regarding the relationship of images and language in the context of visual arts and visual communication. Some images depend on the linguistic message, some are framed by a linguistic message, and some are independent of a linguistic message. Images which are independent of language are used in the paper to differentiate processes *avant la lettre* in two case studies. The first case study is an in-depth discussion of the projection of individual traits through the ink-blot images of the Rorschach test. The 10 plates of this psychometric test are supposed to reveal processes *avant la lettre* that are characteristic for an individual psyche. The second case study shows how ink-blot images are used to train communication designers and how the projection of individual traits is a means to develop a unique result. To conclude the discussion, projection, as a process *avant la lettre*, is employed in order to describe the effect of ink-blot images as a dimension of any aesthetic experience.

INTRODUCTION

The relationship between language and images has been extensively discussed in order to describe the characteristics of both systems of representation (Mitchell, 1995; Boehm, 1994; Krämer 2003). The majority of messages in daily communication rely on a combination of both systems (McNeil, 2005). This speaks for their basically complimentary relationship. The existence of images without words points to the equality and independence of both systems. Images without words show that they can create meaning without a verbal addition. Beyond the description of images and language as opposites, we can also think of them as distinct points on a continuum within a process of generalization (Heidegger, 1997). In this model, an experience is the starting point for its generalization. An image, an image schema and, ultimately, a word are further steps on one and the same continuum. But what happens before we can name or recall an experience with language? What are processes *avant la lettre*? Can we shed light on them? These questions are discussed in the following three sections. A literature review on the topic of *avant la lettre* is followed by a first case study focusing on ink-blot images of the Rorschach test. In a second case study, images as projections of individual traits in the context of educating communication designers are presented and discussed.

AVANT LA LETTRE: A LITERATURE REVIEW OF THE TOPIC

Avant la lettre is a figure of speech, literally translated from French as 'before the letter', 'before writing', or 'before the letter is written'. Historically, it is often traced back to printing processes, where the early prints of a print run are not signed until they reach a quality approved by the artist (Waldow, 1884). In a generalized sense, the phase of doing, becoming, or existing before we can address it with words is described with the figure of speech of *avant la lettre*. There is a broad

spectrum of disciplinary approaches which address what happens before a linguistic utterance is finally formulated.

Jacques Derrida, for instance, gave the first part of *Of Grammatology* the title of *Writing before the Letter*. He analyzes the omnipresence of language, widely understood as an epistemological means to assess the truth in the Western history of thought (Derrida, 1997). Derrida refers to Aristotle, who stated that we have different writing systems and different sounds of speech, but speech is derived from images which are the results of experiences (Derrida, 1997). Derrida contests Aristotle's idea that speech is considered closer to the origin of language and writing is understood as a secondary system. He proclaims 'grammatology' to be a science addressing the entire scope of language, including its visual notation in writing. If we continue the inquiry into the topic of images without words and, therefore, have a closer look at the relationship of images and language, we find a number of attempts to explain images based on semiotic theories (Barthes, 1977; Goodman, 1976; Mitchell, 1986). Roland Barthes draws a clear line in his essay *The Third Meaning: Notes on Some Eisenstein Stills* "the filmic is exactly here, at this point where articulate language is no more than approximative and where another language begins – a language whose 'science' cannot therefore be linguistics, soon discarded like a launching rocket" (1973, p. 65). On the one hand, we can infer from the above that the image can be considered closer to experiences than language –Aristotle– and, on the other one, images are obviously able to address other aspects of our experiences than language – Barthes. The contribution of art history to the debate on the relationship between image and language is revealing as well. The capacity of some images to explain themselves and create meaning without a linguistic addition has been addressed by Thomas Mitchell's *Picture Theory* (1995) and other authors of the iconic/pictorial turn. That meaning can be created beyond mere signification has been elaborated on with a close reading of *Nonsemiotic Elements in Pictures* by James Elkins (1995).

Paleoanthropological research on the development of human language describes the pointing gesture and the 'iconic' gesture as the means of communication before the capacity of language had been developed (Tomasello, 2008). Additional research on the relationship of gesture and speech claims that gesture is the iconic complement of speech, is necessary to formulate spoken sentences, and occurs just before speech can be formulated (McNeil, 2005).

If we turn to cognitive sciences with the quest of what happens before an utterance in language is actually formed, we again find a wide range of theoretical models. Antonio Damasio's distinction of a dispositional space and an image space is useful for the further analysis of images without words in general and ink-blot images in particular (Damasio, 1999). He describes the dispositional space as 'traits' below the threshold of consciousness which influence our actions and reaction. These 'traits' are formed by three layers: inherited dispositions, experiences in the first three years of childhood, and the continuous experiences we make. The dispositional space is engaged in a continuous exchange with the image space, where mental images, concepts, language, and actions are created and become accessible to conscious thought. The interaction is continuous since our body is continuously exposed to changes in the environment and receives continuous stimuli from our senses. Images are one kind of stimulus which we encounter in different contexts. Their occurrence as a visual event, most of the time in two-dimensional form on a restricted plane, defines them as an offer of an interpretable message or a starting point for a dialogue between images and their beholders.

Their material constellation allows a range of interpretations in a beholder's cognitive process involving the interaction between dispositional and image space. Some images in the context of communication –e.g., interface design, information design, editorial design– maintain a close relationship between the linguistic and the visual layer of the message. I cannot use an interface if I cannot read the linguistic

signs indicating the functionality of a button. Other types of images develop their effect through the process of inter-pretation – e.g., images in the context of art, images in film sequences, or documentary photographs. But they are also framed by a linguistic message such as the title of the image or the film or the photograph. There are images that are not framed by a linguistic message at all. Ink-blot images for ex-ample are situated in the process between unconscious cog-nition (Lakoff & Johnson, 1999) and linguistic approximation. They are truly images without words and used with a variety of goals in psychology, design, and art.

CASE STUDY 1: THE RORSCHACH INK-BLOT TEST

Hermann Rorschach (1884-1922) was a Swiss psychiatrist who developed a set of ten specific ink-blot plates. They were published in 1921 as part of a study he had conducted, one year before his early death on April 2nd, 1922. The cards are used as stimuli for the Rorschach psychometric test by psy-chiatrists around the world to this very day. But the test is also decried as a methodology to assess an individual psyche. Rorschach had been given the nickname *Klex* –German for 'ink splotch'– by his schoolmates at high school (Blum, 2008; Galison, 2004). He finished his medical studies in 1909 at the University of Zurich with the goal to become a psychiatrist.

While working on his PhD from 1909 onward, he was also an Assistant Psychiatrist at the Psychiatric Clinic Münsterlin-gen (1909-1912). During this time, Rorschach read the asso-ciation studies by Carl Gustav Jung (1875-1961) and started his own experiments in the field of ink-blot images with patients of the clinic and school children of a local school. His stud-ies were suited to contribute to psychometry, the attempt of measuring individual dimensions of the psyche, a field of psychological research since the foundation of the discipline in the middle of the 19th century (Germann, 2019; Galison, 2004). Ink-blot images were widely used in psychology at

the end of the 19th century. French psychiatrist Alfred Binet, for instance, used them in 1895 in order to evaluate an individual's psyche in ten different dimensions (Galison, 2004). Ink-blot images were also used by E. A. Kirkpatrick in the United States in 1900 to assess children's imaginative capacity in different phases of their development (Galison, 2004). Upon Rorschach publishing his PhD thesis in November 1912 *On Reflex-Hallucinations and Kindred Manifestations*, he was taking a break from his studies of ink-blot associations. Most likely inspired by the dissertation by Szymon Hens with the title *Phantasy assessment with formless blots by school children, adults, and mental patients*, published 1917, also supervised by his PhD supervisor Eugen Bleuler, Rorschach once again took up his ink-blot experiments (Blum, 2008; Galison, 2004).

Holding the position of head psychiatrist at the Heil-und Pflegeanstalt in Herisau –Eastern Switzerland– Rorschach again experimented systematically with ink blots and altered the seemingly accidental images in several steps with the goal of triggering a limited number of standard interpretations by healthy test persons plus triggering reliable deviations from the standard interpretation depending on specific mental conditions such as depression or schizophrenia. It is remarkable to see how Rorschach has developed the final plates of the test going through several iterative cycles, altering phases of design with phases of testing (Figures 1, 2).

The results gleaned from the experiments were prepared for publishing in a study along with ten selected ink-blot plates from 1919 onwards. The publication process was managed by Rorschach's colleague Walter Morgenthaler (1882-1965). Since the results of the test were expected to gain reliability based on the accumulation of statistical results, Morgenthaler and Rorschach had to develop a printing process with the publisher, which was stable and of high quality for all editions. Besides solving these problems over a period of two years, Morgenthaler suggested that Rorschach should change the name of the study from *A Perceptual-Diagnostic Experiment?* to *Psychodiagnostik-Test*.

Fig. 1 Hermann Rorschach, early version of ink-blot plate 10, 1918. Archive and Collection Hermann Rorschach, Bern (CH).

Fig. 2 Hermann Rorschach, printed version of ink-blot plate 10, 1921. Archive and Collection Hermann Rorschach, Bern (CH).

Reflecting Rorschach's modesty and attempt to keep a neutral position between the current schools of psychology at the time, he replied to Morgenthaler as follows

Expressions such as 'Psychodiagnostik' […] Go too far. I don't want to give the impression that one can make general psychodrams with the experiment, and in that context, I have tried to put the brakes on that idea in several places in the text. Perhaps later, when there is a norm created through controlled investigations, such an expres-

sion can be used. For now, though, it strikes me as too pompous. (Galison, 2004, p. 272)

But after additional interventions by Morgenthaler, the title 'Psychodiagnostik-Test' was used in the publication and the ten plates were printed with a remarkable quality of reproduction as to texture, colour, and the range of tones. Especially since the Rorschach test did not intend to describe specific dimensions of the psyche but tried to capture the overall reaction of a beholder confronted with an ink-blot stimulus, the test was compatible with the major schools of psychology at the beginning of the 20th century.

It was Rorschach's intent to describe an 'Experience Type' –*Erlebnistyp*– which was inferred by the emphasis of the test person's projections triggered either by movement (M), colour (C), or form (F). The test procedure was standardized, further developed, and refined by several psychologists after Rorschach's early death – e.g. Morgenthaler 1941. The most extensive instructions and coding system was introduced by John E. Exner in his publication *The Rorschach, A Comprehensive System* (1974).

Exner describes the test-procedure in great detail. In a first step, the psychiatrist informs the patient of the overall goal of the Rorschach test and sits next to him/her on a table or on two comfortable chairs with a clip board. The patient is handed the first card and is asked 'what do you see?'. In the following response phase, the examiner records all the verbal utterances of the patient 'verbatim'. Exner describes extensive possibilities of questions the patient might ask and proposes the answers for the psychiatrist. He emphasizes that the psychiatrist must avoid directive answers and directive encouragement.

After the projections of the patient, triggered by the ten cards, have been recorded with ideally about eight answers per card, the psychiatrist goes through the protocol with the patient again and asks him/her, what his/her spontaneous interpretation was based on. In addition to the verbal records of the response phase and the inquiry phase, a location sheet

is developed which locates the answers that refer to a specific part of an ink blot. In the third phase, the psychiatrist codes the records made in the response and the inquiry phase according to a given index of codes, without the presence of the patient. The codes are derived from the statements of the response-and-inquiry protocol.

This accumulation of codes is then used as the basis for the interpretation of the results based on the outcome of test data collected with other patients beforehand. The critique of the scientific value of the Rorschach test is focusing on the contradiction between the belief in an objective process of codification, executable mechanically, and the intuitive, qualitative interpretation apparent in the observation of the patient, handled by an experienced psychiatrist (German, 2019; Galison, 2004).

We may ask how Herman Rorschach has defined the methodological approach and how much he was relying on codification and how much on his own experience. The lack of answers on plate 9 of the test by a specific patient is commented by Rorschach as follows "suppression of color responses as expressed in color shock is a pathognomonic sign of neurotic repression of affect" (Galison, 2004, p. 278). The interpretation of the observation directly relates to his experience and knowledge as a psychiatrist.

We can say that the ink-blot images of the Rorschach test are images *avant la lettre*, since they are not influenced by a linguistic level. Used in the test, they point through verbalization to a beholder's projections, to processes below the threshold of consciousness, guided by his or her traits and dispositions. They trigger the projection of the 'Experience Type' of a beholder.

Beyond the mix of methodologies taken from the natural science —quantitative interpretation— and the humanities —qualitative interpretation— Rorschach also saw a link of his test to the arts. For him the 'Experience Type' becomes also evident in an individual's preference of one artistic style over another one (Galison, 2004).

CASE STUDY 2: INK-BLOT IMAGES IN THE EDUCATION OF COMMUNICATION DESIGN AND ART

If we leave the psychological perspective behind and look at creative processes of communication design, a designer is going through the same processes Hermann Rorschach has employed in the development of his ten ink-blot plates. Through the creation of an experimental field of visual variations, a trained communication designer evaluates the meaning of a single variation in a comparative process of differentiation, after the experimental phase of the creation of visual possibilities is halted. As described above, this evaluation is guided by the individual projections, preferences, dispositions, and traits of the designer.

To say it with the words of Hermann Rorschach, the evaluation depends on the 'Experience Type' of the respective designer who also projects his/her preferences into the process of design. In contrast to the psychometric test, these projections are not interpreted in order to describe an individual psyche. The preferences of a designer, the choice of a visual form is the starting point of understanding how a visual message is perceived by a broader audience. It is the 'standard interpretation' which is at stake.

Even though the evaluation starts with an individual designer's traits and dispositions, it is usually extended and discussed with colleagues and clients or even assessed with the help of empirical methodologies. Also, in the context of design the assessment of a visual message follows a qualitative methodology –interpretation of the effect of an artifact– or an empirical approach of the social sciences – focus groups, interviews, and usability testing. The preference for a specific methodology strongly depends on the two seemingly opposite criteria an artefact of communication design should be measured by: the transfer of information and the deviation from what a beholder has seen and expects in order to create an intriguing and surprising effect, catching the attention of a passerby (Lyotard, 1997). If we look at basic exercises in the

Fig. 3 Hermann Rorschach, Ink-Blot Plates 1 to 10 of the Rorschach Test, 1921. Verlag Hans Huber, Hogrefe AG, Bern (CH).

education of communication design, they strive to strengthen these two requirements of a visual message. Ink blots are also used as a starting point in order to find the form of a visual representation of an object which can be widely understood by an audience (Figure 3).

Davis Sless describes the difficulty to assess the most likely interpretation of an ink blot by a wider audience

The experiments I performed were very simple. I asked students to look at an ink blot and make a prediction about how someone else would see the blot. I then took the blot to another group of students and asked them what they saw. In every case there were large discrepancies between the predictions and the actual readings. I then asked the original students to modify the image just sufficiently so that readers would see it in accordance with the original predictions they had made and again tested the modified blots on a second group of students. In all cases it took the students at least three cycles of modification and subsequent testing before they achieved optimal results. Most of the students found it increasingly difficult to believe the persistent variability of readings after the second modification. The reading which the design students projected on the blots made it progressively harder, and eventually impossible, for them to see the blot from anybody else's point of view. Their position and their projections determined their reading. (Sless, 1987, p. 7)

It seems a simple task to find an understandable representation of an object. But the understandability depends again on our individual projections, preferences, dispositions, and traits in processes *avant la lettre*.

There are different pedagogical approaches to make students aware of the processes below the threshold of consciousness, their individuality in perceiving as well as in creating a visual message. The ink-blot exercise emphasizes the aspect of varying interpretations of a visual artefact and has as its goal to gain experience in the transfer of information and to raise awareness as to individuality (Figure 4). But the individual point of view is presented as an obstacle that avoids the reliable transfer of a message. Academic art and modernist design curricula have handled individuality in this manner. Striving for objectivity was a major goal in the Swiss design education in the middle of the 20th century (Müller-
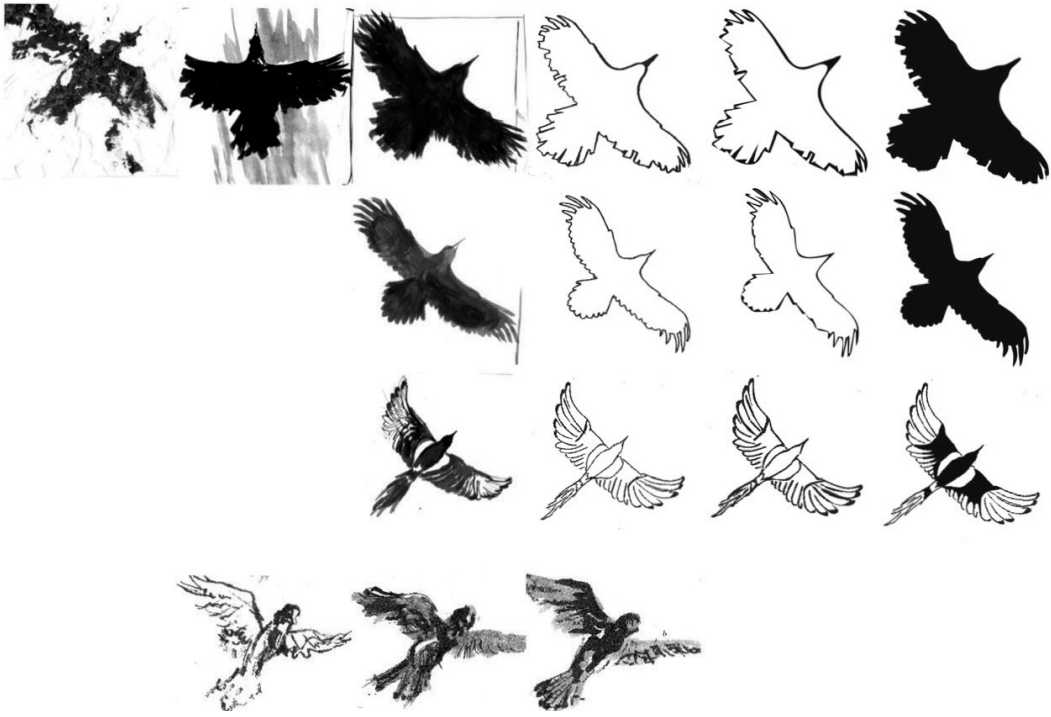
Fig. 4 Malgorzata Malysiak (student), ink-blot exercise, Jan Matejko Academy of Fine Arts in Krakow. Class conducted by Dr. Piotr Michura. Archive of Jan Matejko Academy of Fine Arts.

Brockmann, 1961). If we go beyond the transfer of information and focus on the second criterium a visual message has to fulfill, we may ask how the deviation of the expected occurs and how students can learn to create intriguing and surprising messages.

It is again the individuality of the projection, preferences, dispositions, and traits of the student which is the basis for the following exercise.

The drawing experiment described (Renner, 2018; 2022) is conducted with a group of about 15 students with, ideally, diverse cultural backgrounds. They are asked to draw compositions of horizontal and vertical lines using ink and brush on large sheets of paper mounted on the drawing board of an easel. The declared goal consists in achieving an interesting or aesthetically pleasing result.

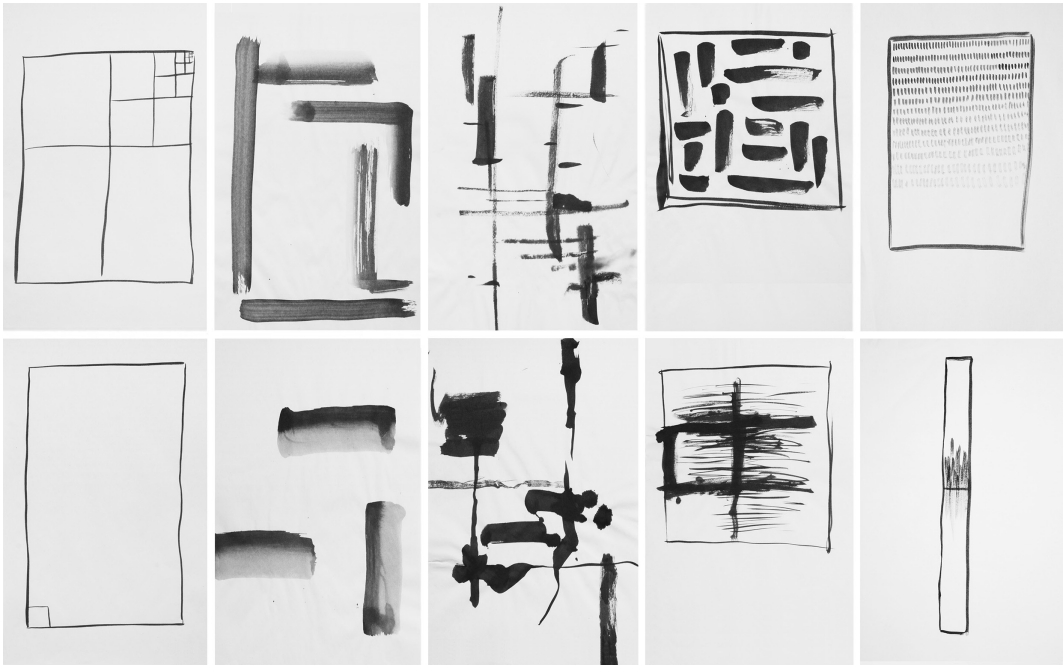The participants in the experiment are given plenty of time to engage in this search for a favourable composition.

Fig. 5 Class project, compositions by five participants, Institute of Visual Communication, Basel School of Design HGK FHNW.

After many attempts have been made, approximately after one hour, the students are asked to select and mark their two favourite examples (Figure 5). The selected image pairs of the participants are laid out –see the example in Figure 5, left to right, participants A, B, C, D, and E– and already show a variety of individual approaches. They can range from compositions following a predetermined strategy of dividing a plane –Figure 5, left column, participant A– to a planned use of the tool and its ability to hold ink – Figure 5, right column, participant E. On the opposite side of the spectrum, there are compositions which are the result of a process that is not preconceived, but a sequence of actions following the setting of the first stroke – Figure 5, middle column, participant C.

In a second task, the participants are asked to draw objects such as pumpkins and lilies with brush and ink. In a comparative analysis of the abstract composition and the representation of the still life developed by one student, the compositional preference and the individual use of the tool become evident and can be addressed in the group (Figures

6, 7). In this setting, the awareness of the individuality of processes *avant la lettre* is not defined as a problem for communication, but as a means to develop the deviation, which allows a visual message to go beyond the mere transfer of information. Also, exercises of writing can be employed in order to let students experience the individuality of the processes *avant la lettre* and to show how the projection of individual preferences can be employed to create visual innovation (Renner, 2020).

Fig. 6 Class project, abstract compositions and drawing of lilies by participant A, Institute of Visual Communication, Basel School of Design HGK FHNW.

Fig. 7 Class project, abstract compositions and drawing of lilies by participant C, Institute of Visual Communication, Basel School of Design HGK FHNW.

CONCLUSIONS

After the discussion of the psychometric promise of the Rorschach test and the discussion of ink-blot images and of other exercises addressing the individuality of processes *avant la lettre* in the context of art and design education, the mystery remains.

Why are the ink-blot images of the Rorschach test still widely known to this day? Why does art and design use images which are coming across as images of chance throughout their history? Is it Leonardo's often quoted advice for painters to look at stains on the wall to come up with new ideas? (Da Vinci, 1877) We may assume that it is the trigger of imagination which is the fascination of ink blots.

The term 'projection', as it is used in psychology, allows us to differentiate another aspect of the fascination related to ink-blot images. As described above, dispositions are formed throughout our individual history and become apparent through the projection and viewing of chance images. Since these images go beyond representation, they can be compared to music, addressing, on an abstract level, basic structures of our past experiences (Johnson, 2007). Music as well as ink-blot images allow us, on an abstract level –*avant la lettre*– to relive the past by making our traits and preferences in the processes of projection apparent. Ambiguity is, to a certain degree, part of any image, but especially evident in ink-blot images.

What has been described as an aesthetic experience includes the projection of our preferences, traits, and dispositions into an actual experience of perceiving an image.

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