



Methods of Analysis **Perceptual Analysis**

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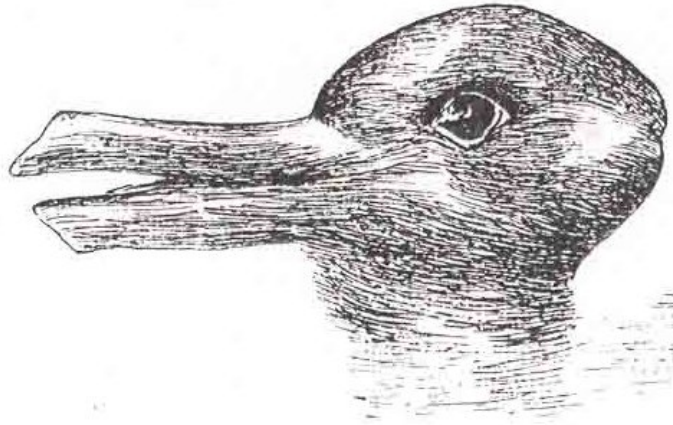
We open our eyes and see. A sound is made and we hear. Things touch us and we feel. Our perceptual experiences are immediate, normally unambiguous, and rarely illusory. They are what, most of all, cannot be denied and as such are awarded privileged epistemological status. (Mack, 1982, p. 350)

Perceptual analysis commonly refers to a specific process of the brain and mind— or a process of perception— that ultimately facilitates habituation, sensitization, and knowledge. In other words, perceptual analysis facilitates environmental sensitivity, creating and settling into environments or one’s world, and what is known about objects, environments, persons, or the world. Experience is enacted, moderated, and regulated by the perceptual system (i.e., distributed nervous system); hence, the importance of becoming more perceptive or expanding awareness and sensitivity beyond comfort zones or perceptual frameworks. The degree to which our perceptual framework and perceptual system are created by and create the perceptual world or conditions and patterns for perceiving is a significant research problem for perceptual analysis.

As a research methodology, perceptual analysis is a means of accounting for this process or making sense of perceptions and experiences. Methods for perceptual analysis range from existential analysis, formal analysis, gestalt analysis, introspection, meditation, and phenomenology to listener, user, and reader-response. In phenomenology the unit of analysis is a phenomenon and essence; in other methods of perceptual analysis the unit is perception and experience. Phenomenology is concerned with reduction and bracketing what is preconceptual or conceptual from the experiential. Other methods of perceptual analysis do not share this concern, although Buddhist texts dating to the 6th century postulate that perception is free from conceptual construction.

Just as conceptual analysis focuses on concepts, perceptual analysis focuses on percepts. A percept is a configuration or representation in the brain, mind, or mind’s eye, co-created by what we sense and what is sensed. In neuroscience, perception is “the functional comparison of internally generated sensorimotor images with real-time sensory information from an organism’s immediate environment” (Llinás, 2001, p. 3). As Worden and Foxe (2003) add: “How the various features that are associated with any particular object are bound together to create a coherent percept is a fundamental issue in psychology and neuroscience and is commonly known as the ‘binding problem’” (p. 11933). Sense-making is interdependent with meaning-making.

Whereas conceptual analysis privileges the objective, perceptual analysis privileges the subjective. Hence, perceptual analysis is as often a first-person methodology as third-person. However, “exploring first-person accounts is not the same as claiming that first-person accounts have some kind of *privileged* access to experience” (Varela & Shear, 1999, p. 2). Despite notions of “immanent perception,” we may not necessarily know our acts for what they are. Perceptual analysis is a means of clarifying or explicating, and dimensioning, or making sense of, ordinary and rare perception (i.e., cultural, natural & spiritual beings & things, images, texts, sounds, etc.). Maturana and Varela (1972, 1988) asserted that to perceive is to cognize: perception is cognition. Yet we should not conclude that perceiving is knowing.

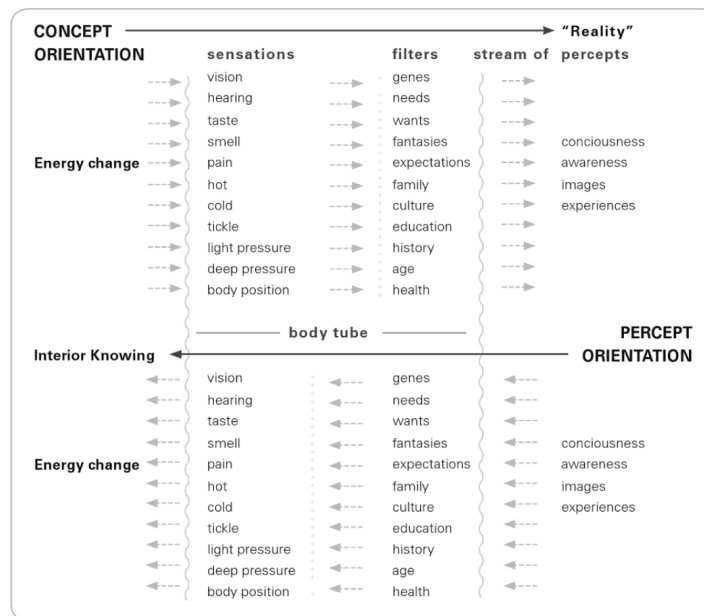


Ambiguous Figure 1. ca. 1900. Deroy (2013): Attending first to the eye-shaped form and the two curvy lines of the drawing, the attentional selection will be dictated by the hypothesis that it is a beak and the content of its percept is more likely to be organized in a way that makes the experience duck-like. If one attends to the eye-shape and the opposite circular bumpy curve, its attention will be guided by the hypothesis that it is a nose, and its percept is more likely to be organized in a way that makes the experience rabbit-like. (p. 95)

1. Two questions are herein begged: What is a percept? *and* What is analysis?
 - a. Putnam (1998): objects-of-valuation are related to objects-of-evaluation as are percepts to objects-of-knowledge. (p. 8)
 - i. How, then, does a percept differ from, say, a physical object? Here we must guard against saying that it doesn't last as long. For if we said that, we would confuse the event of perception with the object perceived, and we would have taken a step on the slippery road to sense-data. The percept, I want to say— and here I am not sure whether Dewey would adopt the same terminology— is the common sense object. I say deliberately 'common sense object' rather than with many philosophers 'material object' for two reasons. The first is that I know that rainbows and shadows and mirror images are common sense objects just as are sticks and stones, tables and water; I don't know whether they are material objects. My second reason is that the term 'material object' belongs, as Austin has pointed out to a particular philosophy of perception, precisely the kind of philosophy of perception that I am rejecting. So, the percept is the common sense object; there is, as I said above, only a difference in epistemological status. (pp. 14-15)
 - b. Reyher (1978): The principles or functions regulating perception also govern the retrieval of percepts (images) from our encoded perceptual history. It is called the *analogic-synthetic mode of information processing*. The other mode of information processing which enables us to understand and use written and spoken symbols is called the *semantic-syntactic mode of information processing*. (p. 67)
 - i. Instead of the reactivation of encoded percepts similar to current visual input, as in perception, percepts are retrieved from the encoded perceptual

history tory of the individual with respect to their similarity with the percepts constituting the aims and objects of repressed drives, not the concepts associated with them. Distinguishing between percept and concept is not new. (pp. 84-85)

- c. Deleuze & Guattari, *What is Philosophy?* (1990/1991/1994): Percepts are no longer perceptions; they are independent of a state of those who experience them. Affects are no longer feelings or affections; they go beyond the strength of those who undergo them. Sensations, percepts, and affects are beings whose validity lies in themselves and exceeds any lived. They could be said to exist in the absence of [hu]man[s] because [a hu]man, as [s/]he is caught in stone, on the canvas, or by words, is [herself or] himself a compound of percepts and affects. (p. 164)
 - i. Affects are precisely these nonhuman becomings of [hu]man[s], just as percepts—including the town—are nonhuman landscapes of nature. (p. 169)
 - d. To analyze is to explicate. The verb “to explicate” means either to explain empirically or to provide an analysis of a concept (Meyers, 1966, p. 392).
2. Riley & Frost (2008, p. 37), despite the title of the book’s (*Are You Ready for Outrageous Success?*) link with “percept orientation,” provide an interesting comparison with “concept orientation:”



- 3. What is perception?
 - a. Locke, *An Essay Concerning Human Understanding* (1689), II.6.2: The two great and principal actions of the mind, which are so frequently considered, and which everyone that repeats may take notice of ‘em in himself [or herself] are these two: *Perception*, or *Thinking*; and *Volition*, or *Willing*.
 - i. IV.9.1: Perception, as it is the first faculty of the mind exercised about her ideas, so it is the first and simplest idea we have from reflection.

- ii. IV.9.4: perceptions are produced in us by exterior causes affecting our senses.
 - iii. For Locke, perception is cognition.
- b. Fischer (1891): immediate psychical apprehension of an object present to consciousness. (p. 237)
- c. Whitehead (1931): Consciousness is an emphasis upon a selection of these objects [or things and data of experience]. Thus perception is consciousness analysed in respect to those objects selected for emphasis. Consciousness is the acme of emphasis. (p. 135)
- d. Merleau-Ponty, *Phenomenology of Perception* (1945/1962): Perception is not a science of the world, it is not even an act, a deliberate taking up of a position; it is the background from which all acts stand out, and is presupposed by them. The world is not an object such that I have in my possession the law of its making; it is the natural setting of, and field for, all my thoughts and all my explicit perceptions. (pp. x-xi)
 - i. The world is inseparable from the subject, but from a subject which is nothing but a project of the world, and the subject is inseparable from the world, but from a world which the subject itself projects.
 - ii. The subject is a being-in-the-world and the world remains 'subjective' since its texture and articulations are traced out by the subject's movement of transcendence. Hence we discovered, with the world as cradle of meanings, direction of all directions (*sens de tous les sens*), and ground of all thinking... (p. 430)
- e. Merleau-Ponty, *Primacy of Perception* (1964): the perceived world is not a sum of objects (in the sense in which the sciences use this word), that our relation to the world is not that of a thinker to an object of thought, and finally that the unity of the perceived thing, as perceived by several consciousnesses, is not comparable to the unity of a proposition [*théorème*], as understood by several thinkers, any more than perceived existence is comparable to ideal existence.
 - i. In speaking of the primacy of perception, I have never, of course, meant to say (this would be a return to the theses of empiricism) that science, reflection, and philosophy are only transformed sensations or that values are deferred and calculated pleasures. By these words, the "primacy of perception," we mean that the experience of perception is our presence at the moment when things, truths, values are constituted for us; that perception is a nascent logos; that it teaches us, outside all dogmatism, the true conditions of objectivity itself; that it summons us to the tasks of knowledge and action. It is not a question of reducing human knowledge to sensation, but of assisting at the birth of this knowledge, to make it as sensible as the sensible, to recover the consciousness of rationality. (p. 25)
- f. Rand (1964): A 'perception' is a group of sensations automatically retained and integrated by the brain of a living organism, which gives it the ability to be aware, not of a single stimuli, but of entities, of things." (p. 20)
- g. Lindsay & Norman, *Human Information Processing* (1977): The senses— seeing, hearing, touching, tasting, feeling— are the windows to the world. These sensory organs feed the brain information about the environment, and the brain interprets this information, matching what is happening with what previously happened. The operations of the sensory system and how they transform the sensory data into

perceptual experience are clearly of central importance to human functioning. . . . human perception—the mechanisms that operate upon sensory information, interpreting, classifying, and organizing arriving information. (p. 3)

- i. Schreurs et al. (2009): Perception is “the process whereby sensory stimulation is translated into organized experience (Lindsay & Norman, 1977). That experience, or percept, is the joint product of the stimulation and of the process itself.” (p. 764)
- h. Gibson (1979): To perceive is to be aware of the surfaces of the environment and of oneself in it. The interchange between hidden and unhidden surfaces is essential to this awareness. These are existing surfaces; they are specified at some points of observation. Perceiving gets wider and finer and longer and richer and fuller as the observer explores the environment. The full awareness of surfaces includes their layout, their substances, their events, and their affordances. Note how this definition includes within perception a part of memory, expectation, knowledge, and meaning—some part but not all of those mental processes in each case. (p. 255)
- i. Freeman (1991): perception is not the copying of an incoming stimulus. It is a step in a trajectory by which brains grow, reorganize themselves and reach into their environment to change it to their own advantage. (p. 85)
- j. Maturana & Varela, *Autopoiesis and Cognition* (1972):
 - i. perception should not be viewed as a grasping of an external reality, but rather as the specification of one. (p. xv)
 1. O'Donovan-Anderson (1996, p. 4): “Perception is not reception.”
 - ii. The first consequence [of a new approach to perception and cognition] required that the question: ‘How does the organism obtain information about its environment?’ be changed to: ‘How does it happen that the organism has the structure that permits it to operate adequately in the medium in which it exists?’ A semantic question had to be changed into a structural question. (p. xvi)
 - iii. For M&V, perceptual systems function to constitute the world that particular organisms inhabit. M&V thoroughly fuse perceiver and perceived.
 - iv. Perception is about the world *and* relationships of an organism or person in the world.
- k. Varela, Thompson, & Ross, *The Embodied Mind* (1991): Perception is seen as an active process of hypothesis formation, not as the simple mirroring of a pre-given environment. (p. 136)
- l. Llinás (2001): The functional comparison of internally generated sensorimotor images with real-time sensory information from an organism’s immediate environment.” (p. 3)
- m. Hoffman & Logothetis (2009, p. 321): Perception does not occur as the tabula rasa. Even newborns come into the world with biases that point them along the path of learning about the faces and places surrounding them. One of the most constructive processes in perception is object recognition, since our three-dimensional understanding of the objects around us are known to us only via brief, often occluded, two-dimensional blips somewhere on our retina. The rest of the process is up to our brains, and will be based on a foundation of extensive visual experience. What is the nature of this constructive process?

4. What is perceptual analysis?
 - a. Merleau-Ponty, *Phenomenology of Perception* (1945/1962): Our constant aim [of the phenomenology of perception] is to elucidate the primary function whereby we bring into existence, for ourselves, or take hold upon a space, the object or the instrument, and to describe the body as the place where this appropriation occurs. (p. 178).
 - i. Note Merleau-Ponty's emphasis on the body or embodiment.
 - b.
5. What is existential analysis?
 - a. Heidegger, *Being and Time* (1927/1996, p. 62) I.3.66: [*Daseinsanalytik*] The closest world of everyday Da-sein is the surrounding world. Our investigation will follow the path from this existential character of average being-in-the-world to the idea of worldliness as such. We shall seek the worldliness of the surrounding world (environmentality) by way of an ontological interpretation of those beings initially encountered within the surroundings. The expression surrounding world contains a reference to spatiality in its component "around." The quality of "around" which is constitutive for the surrounding world does not, however, have a primarily "spatial" meaning. Rather, the spatial character which uncontestedly belongs to a surrounding world can be clarified only on the basis of the structure of worldliness.
 - b. Kuhn (1947, pp. 54, 55): Existential analysis thus becomes a means by which the individual is recalled from the superficiality of a sham existence (*Uneigentlichkeit*) to authentic selfhood.... These three concepts— anxiety, freedom, self-choice— form a pattern of despair sharpened to the point of crisis. Existentialist analysis as a practical enterprise is designed both to induce this crisis and bring it to a happy issue.
 - c. Sartre, "Search for a Method," (1960/1963, p. 133): The object of existentialism... is the particular man [or woman] in the in his [her or their] class, in an environment of collective of other particular men [and women]. It is the individual, reified, mystified, as he [she or they] has been to be by the division of labor and by exploitation, but struggling against alienation with the help of distorting instruments and, despite everything, patiently gaining ground, The dialectical totalization must include acts, passions, work, and need as well as economic categories; it must at once place the agent or the event back into the historical setting, define him [her or they] in relation to the orientation of becoming, and determine exactly the meaning of the present as such.
 - i. Our method is heuristic; it teaches us something new because it is at once both regressive and progressive. (p. 133)
 - ii. We shall define the method of the existentialist approach as a regressive-progressive and analytic-synthetic method. (p. 148)
 - iii. The movement of comprehension is simultaneously progressive (toward the objective result) and regressive (I go back toward the original condition). (p. 154)
6. What is Experiential Analysis?
 - a. See "Experiential Analysis"
7. Challenges of perceptual analysis include avoiding various fallacies:
 - a. Essentialism (e.g., essences of things exist independently or appear in aggregation)

- b. Perceptualism (e.g., assertion of direct, unmediated perception; notion that an image, text, or sound is a record of a perception)
 - c. Perspectivism (e.g., perception and perspective are undifferentiated)
 - d. Representationalism (e.g., representations in the mind correspond to or are models of the world)
 - e. Sensationalism (e.g., senses or attributes of things, such as colours, exist independently; past sensations are stored and accessible as states of consciousness)
 - f. Recall limits of first-person testimony
8. **Procedures of perceptual analysis** (artificial, cultural, natural & spiritual beings & things, and hybrids)
- a. Introspection, Phenomenology, Meditation (Varela & Shear, 1999, pp. 6-11):

	Method	Procedure	Validation
1.	Introspection	Attention during a defined task	Verbal accounts, mediated
2.	Phenomenology	Reduction-suspension	Descriptive invariants
3.	Meditation: Samatha; Mahamudra; Zen; TM	Sustained attention; uncontrived awareness; suspension of mental activity	Traditional accounts, scientific accounts

i. Sketch of a Common Structure

1. Content and mental act

- a. the person experiences something... we shall call that its lived content, LI, a reference for what will follow. In the context of the task, the subject (with or without mediation) is then required to examine (describe, analyse, and/or become aware of, attend to) LI. For this to happen, within a short time LI will then become part of the content of a new experience: examining one's own mentation, a new content, L2, which is a product of the act of noticing one's own mentation, and L2 will typically have additional new content characterized by the particular manner of access to LI.
- b. The core element appearing in this layering, which is common to all first-person methods, is the clear distinction between the content of a mental act (for instance I am requested to picture my house) and the process through which such content appears (how do I come up with the image being requested). Not keeping this fundamental distinction in view is a source of much confusion.

2. Expression and validation

- a. From a second-person position, what appeared merely as overt external behaviour is now taken explicitly as traces or manifestation of mental life, and furthermore as the only lead into what such mental life is....
- b. Here, in the second-person position, one gives up explicitly his/her detachments to become identified with the kind of

understanding and internal coherence of his source. In fact, that is how he sees his role: as an empathic resonator with experiences that are familiar to him and which find in himself a resonant chord. This empathic position is still partly heterophenomenological, since a modicum of critical distance and of critical evaluation is necessary, but the intention is entirely other: to meet on the same ground, as members of the same kind. Examples of this position abound in the traditions that we have examined in the sphere of human practices. The position here is not that of a neutral anthropologist; it is rather one of a coach or a midwife.

- b. Depraz, Varela, & Vermersch, *On Becoming Aware* (2003, p. 6): we set forth a methodical and practical description, the dynamic of becoming aware. We distinguish five principal steps.
 - i. the movement of *epoche* as an initial suspension, repeated at each step.
 1. One accomplishes the *epoche* in three principal phases (pp. 24-25):
 - a. Suspending your “realist” prejudice that what appears to you is truly the state of the world; this is the only way you can change the way you pay attention to your own lived experience; in other words, you must break with the “natural attitude.”
 - b. Redirecting your attention from the “exterior” to the “interior.”
 - c. Letting-go or accepting your experience.
 - ii. the recognition of intuitive evidence as the criterion of truth internal to each act.
 - iii. the expression of the content of each act.
 - iv. the intersubjective validation of findings from Step 3.
 - v. the becoming aware of the multi-layered temporality of each act.
- c. Formal Analysis: Anderson (1988): “Perceptual analysis consists of three distinct operations which move from more obvious and concrete discriminations to increasingly abstract and subtle discriminations of the symbolic and formal qualities” of cultural, natural & spiritual beings & things, images, texts, sounds, etc.) (p. 30) (see also Anderson, 1993):
 - i. Representation
 1. How the artifacts, devices, media, cultural and natural beings & things, technologies, etc. are perceived. What is perceived? How can this be represented?
 - ii. Formal Analysis
 1. Appearance of artifacts, devices, media, cultural and natural beings & things, technologies, etc. take. How is the being or thing experienced, felt, or perceived? What forms are apparent?
 - iii. Formal Characterization
 1. Characteristics apparent in the artifacts, devices, media, cultural and natural beings & things, technologies, etc. What are the attributes, characteristics, or properties for interpretation?
- d. *Currere*: Pinar (1975, 1976, 1978, 2010):

- i. In *Curriculum Theorizing*, chapters titled "The Analysis of Educational Experience" and "Search for a Method," Pinar (1975) describes the method of currere (pp. 384-395, 415-424).
- ii. Currere was introduced as "a method that will allow us to 'bracket' the educational aspects of our taken-for-granted world. That is, we must attend to the contents of consciousness as they appear" (p. 406).
- iii. "So finally," Pinar says in 1975b, "we can characterize the method. It is
 1. regressive, because it involves description and analysis of one's intellectual biography or, if you prefer, educational past;
 2. progressive, because it involves a description of one's imagined future;
 3. analytic, because it calls for a psychoanalysis of one's phenomenologically described educational present, past, and future; and
 4. synthetic, because it totalizes the fragments of educational experience (that is to say the response and context of the subject) and places this integrated understanding of individual experience into the larger political and cultural web, explaining the dialectical relation between the two" (Figure 1) (p. 424).
- iv. In *Toward a Poor Curriculum*, published with Madeleine Grumet in 1976, Pinar simply states that "The Method of Currere" "is regressive—progressive—analytical—synthetical."

