

Can Dichotomies Be Tamed?

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► **Purpose** – The notion of dichotomy is central to Josef Mitterer’s work and he uses the term as a portmanteau. My paper characterizes the specific dichotomies he describes, uses C. K. Ogden’s work on “Opposition” to classify them, and reviews attempts to overcome incompatible oppositions in other disciplines. ► **Approach** – Conceptual analysis in an attempt to show some of the conceptual differences in the various types of opposition. A “sampler” indicates possible divisions. ► **Findings** – From the constructivist point of view, the notion of dichotomy is a complex one and must be divided into separate types, not all of which can be discarded in rational discourse. ► **Implications** – From this author’s perspective, Mitterer’s publications present a powerful stand against the tradition of realism and lead one to hope that his next will be a primer of non-dualistic discourse. ► **Key words** – Oppositions, paradoxes, mathematical abstractions, Schrödinger’s cat, ontological agnosticism, Ogden.

Dualistic presuppositions

In the course of history there have been several purges – quiet rather than violent, to be sure – in the kingdom of philosophy. Theology was slowly pushed out after the Middle Ages, and with the first edition of Kant’s *Critique of Pure Reason* (1781) the seeds for the ousting of metaphysics were sown, an ousting that was vigorously pushed along by logical positivism in the last century. Josef Mitterer is the proponent of a third conceptual revision that, if carried out, would thoroughly change the method and the goals of philosophical investigation.

There is nothing stealthy about Mitterer’s attack. It aims at the very foundations of Western philosophy.

“At the beginning of philosophy there are not problems but unquestioned presuppositions.

These presuppositions are dichotomous distinctions (in the theory of knowledge and the philosophy of language, for instance, the dichotomies of Language–World, Description–Object, Utterance–Referent, Being–Consciousness, Subject–Object, and others).

The attempt to clarify the relationship between the members of these dichotomies leads to the problems of philosophy –

the problems of objectivity, reference, identity, external world, and above all to the problem of truth” (Mitterer 1992, p. 11).¹

He has set his sights on what he calls “dualistic argumentation,” and that is any discourse based on dichotomies that are accepted as unquestionable presuppositions and limit, at the outset, the possible outcomes of any discussion.

In the Foreword to his most recent book, *Die Flucht aus der Beliebigkeit*, he writes:

“The dualistic presuppositions steer the path of thinking towards the domain of objects and establish concordance with them as the goal of thought. The argumentation technique of dualistic philosophy is able to produce this concordance for any conception whatsoever. I try to (re)construct how the separation of the two levels arose as argumentative posits that are taken for granted prior to any discourse... “I am interested in the construction of that relationship which, as a dichotomous presupposition, forms the *paradigma* of dualistic philosophy. This may explain why I do not take part in the interdualistic discussion (in which my sympathies tend to be on the side of constructivism) and also why those who see or make no difference between constructivism and non-dualism consider me a constructivist” (2001, pp. 8–9).

Among the dichotomies of dualistic philosophy, Mitterer lists what I consider two groups. On the one hand are those that have reality as one of their terms, on the other, all forms of distinction between language and its meanings.

Mitterer’s definition of the term “dualistic” is clearly a wide one. My encyclopedia of philosophy tells me that the term was first used for the separation of the principles of Good and Evil in the Manichaean religion and that it was adopted by Christian Wolff in the 18th century for the Cartesian split between Mind and Matter. This second meaning is the general one today. But a lot of other dichotomies are customary in our descriptions of our world.

Ogden’s oppositions

C. K. Ogden, who wrote a fascinating little book entitled *On Opposition* (1967), collected several dozen of them and analyzed 25 to find the different ways in which two elements were opposed to one another. Adopting some of his ideas, I have developed my own criteria for sorting dichotomies (see my “sampler of dichotomies” in Table 1). In his “Historical Introduction” Ogden draws freely on Ludwig Fischer’s (1931) survey of what in German is called *Naturphilosophie*; some of what he gathered from that author may be pertinent to Mitterer’s approach.

“For Schelling ... it is the opposition of ‘nature’ and ‘spirit’ which is axiomatic. He later dwelt on the poles of the prime opposition (Thought–Being, Ideal–Real, Subjective–Objective), and introduced the notion of the *indifference* of these objects, the “total indifference” of Subjective and Objective being “absolute reason” (Ogden 1967, p. 28).

Ogden then moves to Hegel and explains that, although dialectical thinking begins with the opposition of Thesis and Antithesis, it leads to Synthesis, which eliminates the initial dichotomy and produces a higher and more comprehensive concept.

SCALAR		Neutral Middle
Black	White	Grey
Hot	Cold	Tepid
Before	After (directional)	Now, Here
Up	Down (directional)	Level
Right	Left	Straight, Middle
Male	Female	Hermaphrodite
Good	Bad	Indifferent
Love	Hate	„
Desire	Aversion (directional)	„
Attract	Repel (directional)	„
BY CUT (conceptually entailing, no intermediate)		
To	From (directional)	
In	Out (directional)	
Push	Pull (directional)	
Height	Depth (directional)	
Half	Double	
Singular	Plural	
Debtor	Creditor	
Borrow	Lend	
Imply	Infer	
Subjective	Objective	
Denote	Connote	
Sign	Signification	
BY NEGATION (the negative entailing the positive)		
Visible	Invisible	
Do	Undo	
Normal	Abnormal	
I	Not-I	
CONCEPTUAL DISTINCTION (not entailing)		
Heaven	Earth	
Wave	Particle	
Mind	Body	
Experience	Reality	

Table I: Sampler of dichotomies.

Having known Mitterer for some twenty years, I do not believe that Hegel had much to do with the development of his notion of non-dualistic discourse. But Ogden's account of Schelling's suggestion of "indifference" as a

rational gambit is perhaps a useful hint: by "indifference" Schelling intended that the absolute, a reality prior to being experienced, was not articulated and wholly undifferentiated.

The prime form of dichotomous relation, Ogden concludes, is "an opposition, the members of which are each the condition of the other and at the same time are resolved into a single datum" (Ogden 1967, p. 32). I found this distinction useful and characterized it by saying that the opposed concepts entail one another (see Table 1). Among this kind of opposition, Ogden included "I/Not-I" and "Mind/Body," and this is an assignment I do not agree with. Unfortunately Ogden did not include these items in the group of two dozen that he analyzed in detail, specifying different *kinds* of opposition. Although he does not say so, I believe he skipped them because the dichotomies suggested by the "prime forms" are not really an opposition, but rather a separation across which there is no link on the level on which the concepts themselves have been conceived.

The philosophical blunder

What I have called the first group of Mitterer's dichotomies are derived from the fatal blunder in the philosophical tradition that Berkeley described with exemplary precision:

"... we have been led into very dangerous errors, by supposing a twofold existence of the objects of sense, the one *intelligible*, or in the mind, the other *real* and without the mind: whereby unthinking things are thought to have a natural subsistence of their own, distinct from being perceived by spirits" (Berkeley 1950, Book 1, §86; Berkeley's emphasis).

The spurious splitting of experiential items into what is experienced and what is supposed to "exist" apart from the experienter, is what Silvio Ceccato (1951, p. 34) called "*raddoppio conoscitivo*" (gnoseological duplication). It has, indeed, bedeviled students of the theory of knowledge throughout the millennia. Mitterer's campaign against dualistic thinking constitutes a frontal attack against this misconception. But conceptions that have a history as long as this one are difficult to eliminate. Yet Mitterer, as well as radical constructivists, have recently gained allies partly because mathematicians and physicists have begun to move in a similar direction.

Mathematical paradoxes

In his recent book *How Mathematicians Think*, William Byers deals at great length with the fact that mathematicians have developed and very successfully use concepts that contain a seemingly ineradicable opposition. He proposes a theory that reconciles paradoxical oppositions by a form of conceptual fusion on a higher level of abstraction. He does not regard this as a form of synthesis, but rather as a deliberate “indifference”.

Among the “impossible” concepts are “zero,” an entity that consists of nothing, “infinity,” an item supposed to be endless but treated as a closed unit, and the “infinitesimals” of calculus, which involve the irrational transition from very little to a still discrete nothing. The intellectual perturbation that these irreducible oppositions generate may trigger an “act of extraordinary creativity” from which “great ideas” are born. “What these leaps of creativity have accomplished goes against the intuition of the culture out of which they arose. This accounts for the resistance the ideas initially encounter” (Byers 2007, p. 297).

Byers summarizes his notion of “great Ideas” by saying:

“Mathematics is continuously forcing mathematicians outside their initial frames of reference. It is the problematic aspects of mathematics that demand a creative resolution – one that is often completely unexpected and yet, in retrospect can be seen to be inevitable. These jumps to a higher viewpoint are not predictable. They cannot be programmed” (Byers 2007, p. 301).

It seems to me there is a parallel to this “jump to a higher viewpoint” in the physicists’ metaphor of “Schrödinger’s cat,” which had to be thought of as being both alive and dead – a baffling metaphor introduced to show the absurdity of interpreting microexperimental findings in terms of everyday experiences. Now, however, it may have come closer the literal description of a phenomenon. Two research teams, one at the National Institute of Standards and Technology in Boulder, Colorado, the other at the University of Innsbruck, have been able to catch ions in an electromagnetic trap and to show that they actually seemed to be in such a cat-like state of “superposition” (Naica-Loebell 2005; Häffner et al. 2005).²

Ontological agnosticism: A possible answer

Facing a paradox, it is not easy to jump to a higher viewpoint in order to resolve it. When non-Euclidean geometry was first invented, mathematicians fought against it because they found it hard to give up the idea that Euclidean geometry describes space in a *real* world. The notion that there could be several geometries seemed unacceptable. Like the paradox of a particle spinning in two opposite directions at the same time, the possibility of more than one geometry can be overcome only if one accepts the idea that mathematical and physical theories do not portray an independent reality but are attempts to order and systematize our experience of a world that is under no obligation to be logical.

As Niels Bohr put it:

“We meet here in a new light the old truth that in our description of nature the purpose is not to disclose the real essence of the phenomena but only to track down, so far as possible, relations between the manifold aspects of our experience” (Bohr 1987, p.18)

Giving up the quest for a veridical description/representation of a real world makes it possible to rise to a level of understanding where the notion of complementarity can detoxify irreducible paradoxes of human experience. It enabled Bohr to overcome the traditional Subject/Object dichotomy:

“... no sharp separation between object and subject can be maintained, since the perceiving subject also belongs to our mental content” (Bohr 1987, p. 96).

From this, he says, it follows that “the relative meaning of every concept, or rather of every word,” depends “on our arbitrary choice of view point” (Bohr 1987, p. 96). Bohr, unlike the contemporary philosophers of language, realized that the notion of reference to objects of a presumed observer-independent reality was no longer tenable. This has monumental consequences for the theory of knowledge. If the meaning of words cannot be ontologically grounded, the traditional question of Truth and Falsehood can no longer be asked. As Mitterer puts it, the function of these two opposed terms is reduced to distinguishing beliefs we share from those we do not share (Mitterer 2001, p. 105).

This, of course, raises the question of why one should ever hold on to a belief. For conventional thinkers the reason is usually that they consider the belief to be true. They have split the perceptual situation in the very way that Berkeley warned against. As Mitterer explains, the very notion of reference as function of language (implied by the dichotomies of his second group) is a hoax:

“A distinction is introduced (the dualist would say, presupposed) between the object of the discourse and the discourse about the object... This distinction is to enable us to indicate the beyond of the discourse, a beyond where the question regarding the truth or falsehood of our beliefs can be decided” (Mitterer 2001, p. 93).

The non-dualist does not make such a split. He has realized that there is no way out of discourse, no way of getting beyond or under it. A chunk of discourse can be replaced only by another chunk of discourse; it cannot be checked against the reality the dualist claims to be talking about. The radical constructivist, too, has relinquished the dogmatic belief that language refers to things, events, and relations of a real world. But words, sentences, and texts do refer to something – if they didn’t, speaking would be less musical, but essentially not unlike the twittering of birds. This constructivist is happy to agree with Wittgenstein’s metaphor of the *Vorstellungsklavier*, a keyboard, the keys of which are words that call forth re-presentations of experiences that the speaking or receiving individual remembers (Wittgenstein 1953, p. 4).

Conclusion

The non-dualistic way of arguing, as I understand it, will proceed without resorting to explicit or implicit suggestions of access to an experienter-independent reality. On the one hand, the traditional dualistic view that one or both items of the dichotomies “Subjective/Objective,” “I/not-I,” “Mind/Body,” and “Experience/Reality” are anchored in a world that “exists” prior to being experienced, has to be eradicated. On the other hand, the second term of “Denote/Connote” and “Sign/Signification” must no longer be understood as referring to “things in themselves.” It does not, I hope, imply that we cannot talk *about* ideas we want to use to domesticate our experience.

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Ernst von Glasersfeld was born in Munich, 1917, of Austrian parents, and grew up in Northern Italy and Switzerland. Briefly studied mathematics in Zürich and Vienna. Returned to Italy in 1946, worked as journalist, and collaborated until 1961 in Ceccato's Scuola Operativa Italiana (language analysis and machine translation). From 1962 director of US-sponsored research project in computational linguistics. From 1970, he taught cognitive psychology at the University of Georgia, USA. Professor Emeritus, 1987. Several honorary doctorates. Recent publication: *Key Works in Radical Constructivism* (2007). (Photo: Peter Gasser-Steiner)

Mitterer is not the first to claim that there can be no rational exit from the domain of our experience; but the way he justifies the claim by a minute analysis of the dualistic method of argumentation is a new approach and is clearly shaking the philosophical establishment.

Notes

1. The quotations from Mitterer are given in my translation.
2. I have recently had the opportunity to speak with one of the physicists involved in the experiments with captive ions and, as I interpret him, he said that an ion assumes a specific state only when it is submitted to the measuring procedure. If this is the case, it would fit well with Schelling's notion of indifference and with the principles of constructivism.

References

- Berkeley, G. (1950) A treatise concerning the principles of human understanding. Reprinted in: Luce, A. A. & Jessop, T. E. (eds.) The works of George Berkeley, Volume II. Nelson & Sons: London. Originally published in 1710.
- Bohr, N. (1987) The philosophical writings of Niels Bohr, Volume 1. Ox Bow Press: Woodbridge. Originally published in 1934.
- Byers, W. (2007) How mathematicians think. Princeton University Press: Princeton
- Ceccato, S. (1951) Il linguaggio e la tabella di Ceccatieff. Hermann & Cie: Paris.
- Fischer, L. (1931) The structure of thought. Allen & Unwin: London.
- Häffner, H., Hänsel, W., Roos, C. F., Benhelm, J., Chek-Al-Kar, D., Chwalla, M., Körber, T., Rapol, U. D., Riebe, M., Schmidt, P. O., Becher, C., Gühne, O., Dür, W., Blatt, R. (2005) Scalable multi-particle entanglement of trapped ions. *Nature* 438: 643–646.
- Mitterer, J. (1992) Das Jenseits der Philosophie. Passagen: Vienna.
- Mitterer, J. (2001) Die Flucht aus der Beliebigkeit. Fischer: Frankfurt am Main.
- Naica-Loebell, A. (2005) Stabile Schrödinger-Katzen, Telepolis. Retrieved on 30 May 2008 from <http://www.heise.de/tp/r4/artikel/21/21472/1.html>
- Ogden C. K. (1967) On opposition. Indiana University Press: Bloomington. Originally published in 1932.
- Wittgenstein, L. (1953) Philosophical investigations. Basil Blackwell: Oxford.

Received: 22 March 2008

Accepted: 30 May 2008