

Plato's Healing Poison, Zeno's Motionless Flight, Shakespeare's Tricky *Lies* and Schrödinger's Cat's Ghost

„Die Grenzen meiner Sprache bedeuten die Grenzen meiner Welt.“

There is hardly anything more familiar to us than language. It is all around. Human society is virtually soused in its ever circulating currents. But do we really know where its limits lie? Likewise, there is hardly anything more familiar to us than the world. It is all around. Human life is dedicated to exploring it and subjugating it to human will. But can we really pin it down?

Language and Plato's *pharmakon*

From a strictly structuralist viewpoint, language is a fairly uncomplicated phenomenon. It depends on a system of signs governed by consistent organisational rules. Signs stand for objects (conceptual or tangible) – typically in an arbitrary relationship with them. They are arrayed in recognisable syntactic structures. In case of ambiguity, the functional and cultural contexts of the message inform the receiver how a particular sign should be interpreted.

This understanding of language holds sway in the majority of instances. There are, however, situations in which the signifying power of language is thrust against its limits. It is the contention of this paper that the exploration of such situations can yield different ideas about both language and the world.

The situations in question stem from the complex semantic nature of linguistic signs and the incessant recombination of their meanings. In *La Pharmacie de Platon* Jacques Derrida draws attention to the rich semantic potential of the Greek word *pharmakon* used by Plato in some of his texts: a drug, a healing remedy, a medicine, a magic potion, a charm or spell, a means of producing something, a dye, a poison. The dialectic logic of Western philosophy and philosophical discourse, however, necessitates the reduction in a single context of such a multiple semantic potential to non-contradictory terms, either a *remedy*, or a *poison*. Derrida deconstructs established interpretations of Plato's texts and demonstrates that not only are different facets of the meaning of *pharmakon* logically sustainable in the same context, but also that the juxtaposition of some of them provides stimulating perspectives to the main argument (Derrida, 77-215).

I refer to Derrida's essay as an example of a more pervasive and multilayered critique of structuralism, which shows among other things that:

- i) absolute theories claiming universal application, though useful, are far from unproblematic;
- ii) epistemic units are not only interrelated but interdependent and a relatively small change has the potential of transforming the whole system; and
- iii) different, even contradictory, coherent interpretations of one and the same text are possible.

The World and Zeno's Arrow

From a strictly logical viewpoint, the world is also a fairly uncomplicated phenomenon. The first proposition of Wittgenstein's *Tractatus Logico-Philosophicus* states: "The world is all that is the case," i.e. the totality of all facts, all existing states of affairs, the sum-total of reality.

This understanding of the world holds sway in the majority of instances. It is solid, rational and highly intuitive. Its emphasis on actuality, however, may somewhat falter in the conditions of the following thought experiment:

Imagine a flying arrow. The arrow, Zeno may argue, is *actually* at rest. If time is composed of present moments, the arrow occupies a specific place in space at each present moment. Therefore *at present* the arrow is not moving (Aristotle, 1273-1294). It is not the case, one may protest, I just saw it cross the space before my eyes, and besides, time is not composed of present moments – it flows naturally. Now, imagine one takes a photograph of the flying arrow with a film camera capable of very high shutter speed. The photographic image that one may obtain, together with the fraction of the second that it took the camera to capture it, represents the magnitude of one's access to the actuality of that particular moment of the arrow's flight.

I can see a parallel between the camera of the above speculation and a hypothetical person who lacks the capacity of memorising and anticipating actual events and is therefore unable to retain the previous positions of the arrow in space and project his or her expectations for the future development of its flight. This would be the kind of person who lives exclusively in actuality. "Time flows naturally" for us only because we are able to remember past experiences and use them to imagine how things will turn out in the future. The argument behind this example is to demonstrate, on the one hand, the vertiginous disproportion between our genuine contact with actuality and the part of our consciousness dedicated at each actual moment to states of affairs that are essentially non-actual, i.e. we have no longer or not yet access to them, and on the other, the crucial importance of the latter to our lives as we know them.

Now imagine the arrow thought experiment in a slightly different context. Let it be set in Zeno's times when bows and arrows were used not only for sport but also for war. Imagine your conscious experience in an actual moment during the arrow's flight, if the arrow was shot by an enemy archer, being his last remaining arrow, and is flying towards one of your fellow compatriots. A simplified hypothetical division of your conscious experience in this split second may include: a) the notion for a safer world relieved of immediate danger (the archer has no more arrows), b) the estimation of the arrow's trajectory and where it is going to hit, c) the idea of the world without your friend if the arrow inflicts a mortal wound, d) an idea of a joyful world if the arrow misses its target.

Each of the above scenarios of events differs from the others. Each particular difference has the potential to influence all events related to it and cause even more difference. Thus, subject to the theory of sensitive dependence on initial conditions (i.e. the butterfly effect), even the smallest difference has the potential of transforming the whole system or in this case the whole world. The argument behind these speculations is again twofold: on the one hand, there is a constant dynamic circulation of conscious experience between a multiplicity of non-actual scenarios and our access to actuality, and on the other, each of these non-actual coherent scenarios posits a coherent non-actual state of affairs.

Philosophical tools such as the theory of possible worlds have been developed to examine the logic of modalities (e.g. possibility, necessity, contingency) and to account for the existence of coherent non-actual states of affairs which can be imagined, described, and to which one can refer (Cf. Ronen, 25). There are a number of views on the degree of realism that should be attributed to such alternative worlds, ranging from Lewisian *modal realism*: “absolutely every way that a world could possibly be is a way that some world *is*” (Lewis, 2), to Kripkean *moderate realism*: “various ways in which things might have been, different from what has actually obtained” (Kripke, 237). Both the scope and intricacy of the philosophical concept in question are too great to be discussed in detail here, therefore attention will be drawn selectively to three key assertions with which most of the approaches to possible worlds seem to agree:

- i) possible worlds are coherent non-actual states of affairs,
- ii) every consistent proposition is true *at* a possible world,
- iii) possible worlds are ultimately modelled on the actual world,

Language, Worlds and Shakespeare’s *Lies*

Expectably, the concept of possible worlds has influenced the study of language. One of the most significant developments arising from this influence is the emergence of two-dimensional (possible-world) semantics (Cf. Chalmers, *Two-Dimensional Semantics*, 1-5). The underlying premise of two-dimensional semantics is that the meaning of a linguistic sign consists of two dimensions: *extension* and *intension*. The *extension* is the referent of the linguistic sign, while the *intension* maps a possible world to that referent. Going back to *La Pharmacie de Platon*, if we take *pharmakon* to mean “remedy,” the *extension* of *pharmakon* is a remedy, while the *intension* of *pharmakon* can be any possible world in which *pharmakon* picks out a remedy. Thus, the second dimension of two-dimensional semantics provides the most complete and sprawling context for a linguistic sign or a logical proposition imaginable. A set of possible worlds can be of great help if one intends to peel off and compare discrete interpretations of an ambiguous linguistic term and trace both its immediate and far-reaching semiotic impact (Cf. Eco, 65-79). Let us consider a familiar Shakespearean pun on *lie* in Sonnet 138 (Shakespeare, 118-119):

When my love swears that she is made of truth
I do believe her, though I know she lies,
That she might think me some untutored youth,
Unlearned in the world's false subtleties.
Thus vainly thinking that she thinks me young,
Although she knows my days are past the best,
Simply I credit her false-speaking tongue:
On both sides thus is simple truth suppressed.
But wherefore says she not she is unjust?
And wherefore say not I that I am old?
O, love's best habit is in seeming trust,
And age in love loves not to have years told:
Therefore I lie with her and she with me,
And in our faults by lies we flattered be.

The conceit of the poem unfolds in an apparently straightforward and coherent way. The speaker seems to describe a relationship with a younger woman characterised by the exchange of rather innocent lies: she is trying to make him feel less old than he really is, and he is vainly forcing himself to believe her, though he knows she is not being honest. The defects of either are known to the other, to her – his true age, and to him – her deception, but both these faults are overwhelmed by the desire to remain together. Thus, *lie*'s extension “dishonesty” drags along an intension, i.e. a possible world in which Shakespeare's Sonnet 138 is interpreted as a lyric about the petty trickery motivated, sustained, and excused by love, which deserves a less problematic ending like that of an earlier version of the poem published in the collection *The Passionate Pilgrim* (1599):

Therefore I'le lye with Loue, and loue with me,
Since that our faultes in loue thus smother'd be

A fissure in this interpretation is manifest in the use of the preposition “with” in line 13 in both versions. Under the pressure of the above possible world “lie with her and she with me” may be taken to stand for a mutual deception, the unusual use of the preposition emphasising the constant circulation of falsehood between the speaker and his mistress; and “I'le lye with Loue, and loue with me” in *PP* may be perceived as “I'll lie with affection, while this affection is belying me.” Much more intuitive, however, is the idiomatic understanding of the phrase “to make love to her (or to my beloved) and she to me,” which must have been quite familiar at the time, especially since it is to be found in the English versions of the Bible, the so called *Geneva Bible*, circulated at the time. This meaning fits in the above interpretation: the lovers exchange innocent dishonesties and overcome their faults in bodily communion (especially in the earlier version of the poem). Yet, the pun on *lie* casts a grim light on the sweet-tempered interpretation outlined above. The possibility that “I know she lies” in line 2 points to “I know she lies with other men” or “I know she is unfaithful” posits a completely new possible world eliciting different clink from almost every linguistic unit in the poem. “Made of truth” (line 1) projects toward “maid of truth” – honourable woman, a virgin; the “world's false subtleties” (line 4) are given a different form; “vainly” (line 5) and “simply” (line 7) acquire a considerable amount of self-deprecation, the adverb “simply” shifts from “just, naively, innocently” to “foolishly”; “her false-speaking tongue” (line 7) loses its sweetness; the “simple truth” (line 8) is already a different proposition; “unjust” (line 9) has more of the meaning employed by Warwick in *Richard III*: “O passing traitor, perjured and unjust!”; the lament of old age (lines 5-12) now expresses much direr bitterness; “habit” and “seeming” (line 11) evoke a sullen masquerade. The emerging possible world seems difficult to reconcile with the gentle and courteous aura of the one previously discussed. Nevertheless, they are sustained by the same linguistic context and brought together in the last line: “And in our faults by lies we flattered be” – and despite our faults by lying, both “deceiving each other” and “making love to each other,” we shall be flattered. The synthesis comes to full fruition, on the one hand, in the introduction of the mutual pronouns “our” and “we” in the last line, after 13 lines of oscillation between I, me, my and she, her; and on the other, in the verb “flatter,” wresting out all its possible meanings: a) beguile and charm, b) praise and please, c) stroke and caress, d) flatten down and smooth.

This example is used to show, on the one hand, that polysemy is not a local phenomenon – different meanings of a linguistic term influence their linguistic environment positing different possible worlds that can be compared, and referred to; and on the other, that such possible worlds can only be appreciated in parallel, since reducing the interpretation of the

poem to just one possibility would irreparably *flatter* its complexity. Indeed, the more possible worlds we discern, the richer our aesthetic experience (e.g. a very telling set of possible worlds hinges on the multiple meanings of “love” in the considered sonnet).

Superposition and Schrödinger’s Cat’s Ghost

The idea of many actually concurrent worlds is not supported only by the stylistic intricacies of poetic language; its physical dimension has harrowed both science and philosophy throughout the twentieth century. A series of subtle and elaborate experiments have shown that quantum objects such as photons exist in a number of states simultaneously, i.e. their states are in quantum superposition; and that this superposition collapses into a single state only at measurement, i.e. at interaction with macroscopic objects such as detectors (Cf. Rea, 24-45). The behaviour of quantum systems had been considered quite remote from everyday life until it was translated into tangible life terms by Erwin Schrödinger in 1935. He proposed a thought experiment, which required that a cat is penned up in a steel chamber along with a mechanical apparatus linking a photon polarisation detector and a lethal device, so that the lethal device is activated if the detector registers one of the photon’s quantum states. By setting up this system Schrödinger placed the cat in a superposition of dead and living states until measurement occurred. One can hardly imagine a more extreme antagonism than that between a dead and a living organism. However, the very presence in popular culture of the concept for *ghost* or *spirit*, be it rational or not, attests the possibility for the intellectual superposition even of so irreconcilable oppositions.

The importance of quantum reality, i.e. nonlinear processes, has grown ever since in the light of the recent development of theories trying to bridge the interdisciplinary gap between the philosophy of conscious experience and the biology of the brain (Cf. Chalmers, *The Puzzle of Conscious Experience*). Neuroscientists use non-invasive methods of monitoring brain activity to show that active information processing at the neural level is not materially unified, i.e. different kinds of sensory stimuli affect different brain areas. They argue that our perception of an object or event as a unified whole depends on the so called brain waves, i.e. synchronized oscillations of neurons which fire as often as 40 times per second. Hence, a) the material deconstruction of experience in the brain may ensure the latter’s enormous combinatorial potential; and b) the dynamic oscillation of brain waves may provide for the incessant, nonlinear, context-dependent recombination of information coherences along branching neural systems. In order to be consolidated and retained, or deep-encoded, in the long term memory, however, multiple information coherences are most probably hierarchically processed and thus reduced to optimally consistent linear terms in order to optimise recollection and minimise prediction error (Cf. Friston, *Cortical Responses*). Thus, it seems pragmatically motivated for the human mind to reduce multiple experience. But the question is: can there also be another mode of conscious perception at earlier, nonlinear stages of the neural information processing pathway?

The above discussion of ambiguities related to both semiotic interpretation and cognitive perception suggests an affirmative answer to this question. It suggests that even though human consciousness gravitates toward linearization and systematisation of experience, it still essentially exists amidst possibilities. In semiotic processes, the dynamic oscillation between concurrent coherent interpretation possibilities at each stage of perception accounts for the constant renegotiation and context-dependent nonlinear modification of meaning. As we can see in Shakespeare’s Sonnet 138, this property of the human mind can even be manipulated so

that greater expressivity of poetic language is achieved. In cognitive processes, our being in *actual*, or *linear*, reality seems to be conditioned by the recollection, recombination and projection of past experiences, i.e. oscillation among stored experiential histories and possible states of affairs extending commensurately into logical space. This complexity coupled with the subjective nature of stored human experience offers an explanation to the question why “the surrounding world is different for each of us, notwithstanding that we move about in a common world” (Heidegger, 164).

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