"Tractatus Linguistico-Therapeuticus"— Towards a Theory of Therapeutic Language

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This, and subsequent articles take as their starting point Wittgenstein's conception of a "philosophical therapy for (and through) language" – and of a "linguistic therapy for (and through) philosophy." We begin by paying particular attention to the pivotal relationship between the "private" or "internal" use of language which is conjectured to mediate self-awareness, and the way in which people "operate" on and in the "real" world using "public" language. Despite the apparent ease with which we (un)consciously perform the act of linguistic intercourse, it is shown that the underlying philosophical issues regarding the nature and mode of such postulated "intrapersonal communication" are inherently intricate. The arguments regarding the possibility and meaning of a radically "Private Language" are elaborated, together with the implications of these arguments in applying communication theory to self-awareness. The point is strongly made that it thus behoves the professional communicator, and in particular the therapist, to have an appreciation of these issues, which form a bedrock to modern linguistic therapy and therapeutic linguistics.

In order to get to grips with Wittgenstein's idea of "the misuse of language as the origin of philosophical befuddlement," let us backtrack somewhat and start with a consideration of the "Tractatus Logico-Philosophicus ... the work that defined Wittgenstein's earlier approach to philosophy, in which language ... took centre stage ... The opening line is marvellous: 'The world is everything that is the case'" [0]. Despite the fact that we may feel that "there is no identifiable overriding theory," Wittgenstein does explain in the Preface to the Tractatus that "The book deals with the problems of philosophy and shows, I believe, that the method of formulating these problems rests on the misunderstanding of the logic of our language. Is whole meaning could be summed up somewhat as follows: What can be said at all can be said clearly; and whereof one cannot speak thereof one must be silent" [1]. And so, in trying to unmesh the "tangled threads" of Wittgenstein's philosophizing, we enter a "surrogationalist" world of "mystical solipsism," where "philosophy is not a silent practice" [2] and in which the central tenets are: "(i) that words have meanings by 'standing for' entities, properties, relations, etc., and (ii) that the entities, properties, relations, etc., are given independently of the words standing for them" [3]. Thus "In the world of the Tractatus symbols have two employment opportunities open to them: either to say something about the world (the function of

describing) or to show something about the world (the function of revealing ontological structure" [4]. In this way "Propositions such as 'It is raining' say something that is either true or false; contradictions and tautologies on the other hand, are neither true nor false - they show instead that the world has a structure such that if certain signs are combined then contradictions or tautologies are created" [4]. Now, "The way Wittgenstein gets from the world to where he thinks all the problems and answer really lie, i.e., the proposition, is via the notion of a thought. Having urged us to think of the world as being made up of facts not things, Wittgenstein then ... introduces the central idea of picturing the facts of the world" [5]. Wittgenstein elaborates this by saying that "We picture facts to ourselves ... A picture is a model of reality ... In a picture objects have the elements of the picture corresponding to them ... In a picture the elements of the picture are the representations of objects ... What constitutes a picture is that its elements are related to one another in a determinate way ... A picture is a fact ... What any picture, of whatever form, must have in common with reality, in order to be able to depict it - correctly or incorrectly - in any way at all, is logical form, i.e., the form of reality ... A picture whose pictorial form is logical form is called a logical picture ... Every picture is at the same time a logical one. (On the other hand, not every picture is, for example, a spatial one.) ... A logical picture of facts is a thought ... In the proposition the thought is expressed perceptibly through the senses" [1]. And if "the world is everything that is the case," then we can go on to say that "... A thought is a proposition with sense ... The totality of propositions is language ... A proposition is a picture of reality. A proposition is a model of reality as we imagine it" [1]. Now the nature of these Wittgensteinian "pictures" require some thought, since "At first sight a proposition – one set out on the printed page, for example - does not seem to be a picture of the reality with which it is concerned. But neither do written notes seem at first sight to be a picture of a piece of music, nor or phonetic notation (the alphabet) to be a picture of speech. And yet these sign-languages prove to be pictures, even in the ordinary sense, of what they represent" [1]. And so, in this case, at the inception of the Word, and thus the World, " ... we can see how important it is to Wittgenstein's analysis that facts are articulate. It is because facts have parts that they can be pictured, the elements of the picture corresponding to the objects that constitute the fact" [5], and we thus understand Wittgenstein's aphorism that "The limits of my language are the limits of my world" [1], and that the purpose of the Tractauts is to " ... draw a limit to thinking, or rather - not to thinking, but to the expression of thoughts; for in order to draw a limit to thinking we should have to be able to think both sides of this limit (we should therefore have to be able to think what cannot be thought). The limit can, therefore, only be drawn in language and what lies on the other side of the limit will simply be nonsense" [1]. We can summarize the fundamental idea of the Tractatus as being that " ... all philosophical propositions are nonsensical including the ones in Tractatus Logico-Philosophicus. One is reminded of the first line of the Tao Tê Ching, which says: 'The Tao that can be expressed is not the eternal Tao'" [5]. In fact Monk's summary is that "Its [Tractatus's] main point is to answer the 'cardinal problem of philosophy', i.e., the question of where the limits of expressibility lie" [5]. Now the crucial importance of this lies in the fact that "In giving what he thought was a definitively and unassailably true answer to that question, Wittgenstein considered himself to have cleared up all problems of philosophy, and, in particular, to have defined the realm of the ethical. In both logic and ethics, the central point is the same and can

be summed up in the sentence that occurs twice in the book, once in the preface and again as the final sentence: 'Whereof once cannot speak thereof one must be silent'" [5]. So on the one hand, "In holding that the only genuine bearers of meaning are elementary, logically independent, fact-stating propositions, the Tractatus is, by its own lights, a foredoomed attempt to transgress these limits. For its propositions are elucidations and tautologies which say nothing, and the elucidations are, like all genuinely philosophical utterances, profoundly nonsensical efforts to say the unsayable" [2] - yet on the other, it " ... still manages to communicate an unassailable and definitive truth about philosophy viz., that any attempt to say something philosophical results in nonsense. It does this by getting the reader to see that its own propositions are nonsense and that they are nonsense because they try to say something philosophical" [5]. We shall return later to an interrogation of these validity of these arguments as applied to the human psyche, self-awareness, intrapersonal communication, and mysticophilosophicolinguistic therapy via an excursion in Eden - "That spot to which I point is Paradise, / Adams abode, those loftie shades his Bowre" [6] - where our mythical forebears' "Unspeakable desire to see, and know" [6], their decision to "speak, rather than remaining silent," their "profoundly nonsensical efforts to say the unsayable," lead to the dawning of a new kind of awareness, to the inception of a new form of life, a new language game.

So, let us now turn at "midnight in the garden of good and evil" [7] to Adam and Eve, and ask whether, on "transgressing the limits" and eating "the fruit of that forbidden tree" [6], it would have made Adam Namer more mad a man to mutter muddled meanings to his meet help, or hear Chava say them solipsistically, speaking solely to herself, realising " ... What thou seest, / What there thou seest fair Creature is thy self, / With thee it came and goes ... " [6] in their burgeoning state of self-awareness? And so that insightful eve, "Damn!" the first man might declare even to Eve: "Madam in Eden I'm Adam!" - as both " ... aware themselves, and soon / In order, guit of all impediment" [6] - and once more by structuring the phrases right we are left with recursion at work, but a few steps up from the primordial ab-venture described in previous articles [8] – [14]. First of all "We may safely say that the human animal is the only creature which talks to itself. It maintains a rather constant internal dialogue in which it approves or disapproves its actions, or even itself. Its accusations and defences of itself are quite different from those in which it engages in its external dialogues. The self pities and glorifies itself as well as accuses and excuses itself. It could not carry on this dialogue without using its 'reason'; for the dialogue means that the self in one of its aspects is making the self, in another of its aspects, its object of thought. It uses conceptual images for this procedure" [15]. This new awareness is crucial, since in Edenic terms, "The mind is its own place, and in it self / Can make a Heav'n of Hell, a Hell of Heav'n" [6], as Hamlet well knew, and in this sense we can understand Yahweh's prohibition of the fruit. We shall discuss in detail below the ways in which self-awareness is believed to be mediated by language of some kind, which "is by its very nature secret" [15], but for now we simply state that "Self-talk is defined as the ongoing dialogue we have with ourselves that determines our behaviour" [16], and after this interlude with Adam and Eve, we shall find that "The concept of the internal dialogue - and specifically the fundamental polarity between positive and negative thoughts has historical antecedents from Plato to William James" [17]. There are important consequences of these fundamental polarities, since "In a very real sense, the initial distinction of world from self leads,

through language, to a distinction of self from the world. The separation of the world leads only to a consciousness of the world and of self QUA objects in that world. Self-awareness requires a further differentiation within self - language fulfils this need" [18]. Now, regarding this awareness of self and surroundings, and of self-in-surroundings, we realize that "Our reliance on language as our primary means of communication requires that we assign word-labels to the phenomena which surround us. We then tend to refer to these phenomena by their assigned labels, as if the label is the phenomenon, rather than a shorthand referent. It is, of course, more convenient to say 'That's a cow,' than to say, 'That is something to which our culture, by general agreement, assigns the label 'cow'. In science as well, it is convenient to speak of atomic structure as if atoms are composed of protons, neutrons and electrons, even though modern physics presents a somewhat different view" [19]. And in this sense, "Confusion arises ... when we think of the labels as if they are the phenomena to which they refer ... We lose sight of the reality that everything other than the phenomenon is abstraction; thus the phenomenon loses some part of its experiential immediacy when 'named'. A wall between the phenomenon and the self is erected when an image, construct, or definition is assigned" [19]. In other words we must realize that "Beyond the world and outside of language is that which confers meaning ... This 'outside' is the domain of the sacred, ethical and aesthetic value. There can be no genuine propositions about these values because they show themselves in what is said, and what is shown cannot (logically speaking) itself be said" [2].

And we may well then ask was Adam stuck in a rut wanting "more than his own thoughts for company," [20], realizing that " ... we can't talk about much that intrigues us - natural theology, metaphysical cosmology, ethics and aesthetics - without talking nonsense" [2], and so starting to think about thinking? For "Towards the end of Tractatus Logico-Philosophicus, Wittgenstein says: 'There is indeed the inexpressible. This shows itself; it is the mystical.' Among those things that 'show themselves' are ethics, aesthetics, religion, the meaning of life, logic and philosophy. In all these areas, Wittgenstein appears to believe, there are indeed truths, but none of these truths can be expressed in language; they all have to be shown, not said" [5]. And if we believe in the realm of "the inexpressible, the mystical" where "omen nomen nemoni hominis [est]" - "An omen to noone is the name of a man" - we are led to ask whether " ... a verbal enunciation, a word, a name (nomen), can have a performative force, conjuring the destiny (omen) and therefore determining the future"? [21]. The crux of the issue is that "This is precisely the point where language fails. Obviously, all language must be abstraction. The limits of language require abstraction, since there is no way the entirety of experience can be communicated in words. Any description beyond 'is-ness', however, is culturally determined and as such constrains our perception to remain within the parameters established by our culture. While the imperatives of communication require the use of language to induce agreement about shared, or consensual reality, our experiential reality inevitably suffers as language is incorporated into our cultural mindset" [19]. Moreover, humans will insist on inventing concepts outside "consensual reality" and "Wittgenstein retained the view that moral and sacred values belong to the realm of the inexpressible ... He always held that to philosophize was not to theorise; that philosophy had no business giving explanations of a purportedly scientific sort ... but [that it was] an elucidatory activity which resulted, not in 'philosophical propositions', but in the clarification of

propositions" [2]. Now, following on from this, " ... Wittgenstein stressed that philosophical problems arise for people, and he made their condition, rather than some impersonal set of concrete or abstract features, the primary focus of attention" [22]. Furthermore, "Philosophy cannot show what is said by the propositions of science. It can give no explanations, and it can make no discoveries in the sense that science does, from which it follows that we can make no mistakes in philosophy. But neither can philosophy say what is shown by the aesthetic, moral and sacred values which give sense to our language, although it has an inescapable tendency to do just that" [2]. We might conjecture that in his attempt to "educate himself towards independence" [23], and maybe led on by the idea that "we can make no mistakes in philosophy," even Wittgenstein himself " ... succumbed to the temptation, implicit in language itself, to 'try to grasp the essence of the thing' ... predicating of language an inner logical structure in an attempt to account for the necessity of tying language to the world" [2]. We might well concur of the Tractatus, therefore, that "The result is a work so enigmatic that it has been the subject of almost as many interpretations as the Bible. Bertrand Russell, Wittgenstein's teacher at Cambridge, was one of the very few to be unimpressed when the book was first published in 1953. For others, reading it has been a life-changing 5ehaviour5. I find myself fluctuating between these two extremes with each rereading" [0] - and that "In its final form, then, Tractatus Logico-Philosophicus is a curious hybrid of a book, a treatise on logic and the expression of a deeply mystical point of view ... Russell ... was shocked at the transformation in his 'dream' student brought about by his experiences in the war. 'I had felt in his book a flavour of mysticism', he wrote to Ottoline Morrell..." [5]. It is this "mystical philosophy" or "philosophical mysticism," as applied to the question of self-awareness and creative therapeutic change that we pursue in the remainder of this article.

At this stage let us revisit Hegel's conjecture that "in order to be conscious of the world, I must at the same time be conscious of being conscious" and focus attention on the way in which we process information from the external world through a set of filters (internal, mental, emotional, verbal and perceptual), prior to forming internal representations [24]. This screening effect mediates the whole of our meta-meaning-making process (our "consciousness of being conscious") and thus the way in which we create our sense of self. We respond to these filtered perceptions and not to a true external "reality." We must therefore always be mindful to test our perceptions and not treat our assumptions as facts. Furthermore, if we take Kant's stance that "We comprehend the universe only as filtered through the categories which are constitutive element of our subjectivity" [23], then we see that the " ... split between the Subject of knowledge (the knower) and the Object of knowledge (the known) reproduces itself within the Subject itself" [23]. We frame this observation in communication theory terms by saying that individuals " ... exist in a dynamic relation with each other and their contexts. The interrelation of their contexts (including the material conditions of life), metaprogrammes, [sets of instructions, descriptions and means of control of sets of programmes] and expectations causes them to engage in activities which are intended to satisfy needs as perceived by the people themselves. The activities result in achievements which in turn modify the metaprogrammes, act on the contexts and generate new expectations. This can be better understood as an ongoing, dynamic and cyclical process rather than a linear chain of events" [25], [26]. When Chomsky was asked about the mechanism of human reality creation - "How do you think language affects consciousness and what we experience as reality?" [27] he answered "Your guess is as good as anyone else's. I mean, what we know is mostly by introspection, if you pay attention for, say, the next few hours, you'll discover that you're constantly talking to yourself. It's almost impossible to go through a moment of time without internal dialogue taking place, and that's just an enormous part of our consciousness, And it's in language, most of it, at least the part that's accessible to our consciousness is in language. How it affects our thought, and our general awareness it's pretty hard to say. The thing is, we have no real access to thought or consciousness, except through language. So it's hard to ask the question" [27]. The specific link between language and experience is that "We learn language by internalizing verbal labels as shorthand referents to specific matrices of our sensory input; thereafter, when a specific sensory matrix is experienced or recalled, we subvocalize its language 'label'. It is generally assumed that, although our conversation with others is discontinuous, we must continually maintain an internal dialogue, conversing with ourselves, as we internally identify or label sensory phenomena by subvocalization, using the nouns, verbs and adjectives sanctioned by our culture. This assumption that maintenance of internal dialogue is mandatory, however, limits our potentiality, since the habitual application of labels leads us to deal with the label as if it is the thing" [19] – as was indicated above. We find that "A compelling everyday example of the limitation of human potential by the application of language can be seen in the faces of children. The face of a pre-verbal child glows with the wonder of his surroundings, as do the faces of those only just introduced to language. They swim in a sea of infinite possibility ... Gradually, however, as schooling progresses and the internal dialogue becomes continuous (as society demands) the child's face begins to close ... Finally, usually in late adolescence or early adulthood, the face reflects its owner's conviction that, in fact, very little is possible" [19]. Indeed first-hand evidence, albeit anecdotal, it found through the fact that "Some unfortunate people suffer from brain damage that selectively interrupts inner speech. It's as if they were under the influence of this imaginary drug. Scott Moss, a psychologist who was victim of a stroke, lost the ability to use language. He was able to recuperate and related his experience" [28] and went on to say "I had lost the ability to converse with others ... and to engage in self-talk. In other words, I did not have the ability to think about the future – to worry, to anticipate or perceive it – at least not with words. Thus for the first four or five weeks after hospitalization I simply existed." Morin [28] concludes that "What this quotation suggests is that inner speech makes us aware of what we are experiencing. Moss, because he was unable to talk to himself about what was happening in his mind, 'simply existed.' Surely he was feeling and perceiving things, but he was only vaguely - if at all - aware of his mental processes; furthermore, he was incapable of foresight." The philosophophical essence of this on the grand scale was understood by Hegel, " ... [whose] philosophy embodies the memory of humanity as it pieces together what has been left dismembered in fragments: it is humanity struggling to take possession of the totality of its own past by seeing the story of humankind's self-realization as a significant whole. Hegel's recapitulated history of humanity's progress reveals how consciousness is made aware of itself, thereby transforming itself into selfconsciousness - or rather, consciousness is made aware that it is already self-conscious" [23].

And we are now truly immersed in the realms of "self-awareness" where "The term 'self-awareness' first needs to be carefully defined ...[it] refers to the capacity to become the object of one's own

attention [29], where the individual actively identifies, processes and stores information about the self. It is an awareness of one's own mental states (such as perceptions, sensations, attitudes, intentions, emotions, etc.) and public self-characteristics (which include behaviors and general physical appearance)" [30]. Now Hegel claimed that "In order to be conscious of the world, I must at the same time be conscious of being conscious. Self-consciousness is 'built in' to consciousness. The two-way (subject/object) relation is soon complicated by the awareness that I am not alone in the world. Consciousness of self (self-consciousness in-itself) is not yet real subjectivity" [23]. Indeed "Selfconsciousness, or subjectivity, is immediately a consciousness of a lack of something - the object. Freedom has its beginning here, in Desire. Self-consciousness is consciousness aware of its own unity and purpose. But it is also a consciousness divided, isolated from other consciousnesses. If humankind is to lead its history self-consciously, Hegel must show how individual selfconsciousnesses can be related to one another in an essential way. He has to show how freedom can both divide, and ultimately also unite, human individuals" [23]. In the modern world it is claimed that the three main sources of self-awareness are the social environment (reflected appraisal, taking others' perspective, audiences), the physical world (mirros, video cameras, photos, books, media like TV news, programs and films) and the self (inner speech, imagery, double sensory stimulation) [30] and it can certainly be mooted that many of these mechanisms can act "to divide, and ultimately also unite, human individuals." It is proposed that the crucial link between context in which human beings operate, the "metaprogrammes" controlling their actions, and their expectations of the future, is mediated through language and "Wittgenstein argues that all our knowledge of the world, all that we think about, talk about and so on, is gained out of experience, interaction and action, i.e. is gained out of linguistic processes within the environment" [26]. The problem with this restriction on our knowledge is that "In this and other ways, our everyday language disguises the underlying logical form of the thoughts it is used to express. Philosophy, Wittgenstein believes ... is, for the most part, a series of problems that have arisen because of the confusion caused by this disguise. In this way, it can often help to re-express thoughts in the kind of artificial, formal languages invented by Frege and Russell" [5]. One critical consequence of the fact "all knowledge we gain of the world is gained linguistically" is the observation that "One can have no existence as a (social) human being outside of a social framework and the social framework is constantly mediated by shared language and that in the long run that there can be no private language that would have any communicative function. My understanding of myself, i.e. my identity, is disclosed by my interactions. I do not exist as an island -'no one is an island'" [26]. This is an idea which is central to Wittgenstein's Private Language Argument and the mystico-philosophical debate it raises as to whether there can be any "private language that would have any communicative function" - and if so what that function, or indeed the usefulness of the debate itself, would be - is expounded in great detail later. We can thus postulate that the observable effect of our languaging on the external, and thus reflexively on our internal, worlds is that " ... one cannot enter an environment without effecting it in some way. Effect is interaction, or at least will lead to interaction or the avoidance of interaction which is itself a kind of interaction. To reach some sort of state of 'objectivity' within an environment is impossible. The failure to recognise this illusory nature of language will inevitably lead to bad results ... This argument suggests that one cannot gain information from a system without entering into it and acting upon it, in some way altering the conditions of the system, if only by talking about it" [26]. Languaging thus exerts a kind of ironic magic on our self-reflexive existence since "There is no subjectivity or objectivity. The presence of the observer within the environment being observed, or even outside the environment being observed, alters the process going on in that environment" [26]. The overall result of this is that "It follows that, if our usual or ordinary reality is a construct arising from our own internal dialogue as we interpret our sensory input, then, since each of our dialogues must be the unique result of the sum of our individual experience, there is no way we can share a totally agreed-upon mutual reality" [19]. The nature and results of this uncertain communicative self-languaging process is creating, maintaining and changing human realities, are explored in great detail in the next article.

References

- [0] Syed, M (2005) I have Really Read: "Philosophical Investigations" by Ludwig Wittgenstein. Times 2. 14 November 2005. Column. p 7.
- [1] Wittgenstein, L; Pears, D F and McGuinness, B F (translators) (1961) Tractatus Logico-Philosophicus. London UK: Routledge.
- [2] Holiday, A (1985) Wittgenstein's Silence: Philosophy, Ritual and the Limits of Language. Language and Communication. Volume 3, Number 2, pp 133 142.
- [3] Harris, R; Bhaskar, R (editor) (1990) Harré and His Critics. The Scientist as "Homo Loquens". Oxford UK: Blackwell.
- [4] Farrow, S (1994) The Nature of Syntax and the Syntax of Nature. Language and Communication. Volume 14 Number 2, pp 203 210.
- [5] Monk, R (2005) How to Read Wittgenstein. London UK: Granta Books.
- [6] Milton, J (1667) Paradise Lost. University of Virginia Library Electronic Text Center. wapURL: D71F27W.
- [7] Berendt, J (1995) Midnight in the Garden of Good and Evil. London UK: Vintage.
- [8] Jemmer, P (2007) "Omen Nomen": Naming and the Nature of Life. The Hypnotherapy Journal. Spring 2009, Issue 1, Volume 9, pp 23 27.
- [9] Jemmer, P (2008) Linguisticalize the Therapon: Meta-Magic in Therapeutic Transformation. Fidelity. Summer 2008, Edition 32, pp 24 28.

- [10] Jemmer, P (2009) Mythophilia and the Sophology of Language. Fidelity. Spring 2009, Edition 35, pp 31 36.
- [11] Jemmer, P (2008) A Mystical Tour through Magical Man-tra-nce. Fidelity. Winter 2008, Edition 34, pp 21 28.
- [12] Jemmer, P (2008) "Mene Mene Tekel Upharsin" The Psycho(a)logical Mythosophy of the Written Word. Fidelity. Autumn 2008, Edition 33, pp 18 27.
- [13] Jemmer, P. (2007) "Nomen Omen": Languaging and the Nature of Names. The Hypnotherapy Journal. Winter 2007, Issue 4, Volume 7, pp 24 30.
- [14] Jemmer, P (2007) "Lingua Creationis" and the Creative Nature of Language. The Hypnotherapy Journal. Autumn 2007, Issue 3, Volume 7, pp 25 31.
- [15] Niebuhr, R (1988) The Self and the Dramas of History. Lanham MD: University Press of America.
- [16] Gesell, I (2007) Am I Talking to Me? The Power of Internal Dialogue to Help or Hinder Our Success. wapURL: 8RE94JN.
- [17] Schwartz, R M (1986) The Internal Dialogue: On the Asymmetry Between Positive and Negative Coping Thoughts. Cognitive Therapy and Research. Volume 10, Number 6, pp. 591 605.
- [18] Brown, J W; Rieber, R W (editor) (1976) Neuropsychology of Language: Essays in Honor of Eric Lenneberg Consciousness and Pathology of Language. London UK: Plenum Press.
- [19] Carey, B (2007) As If: The Reification of IT: The Paradox of Language. wapURL: JNQRFBY.
- [20] Jemmer, P (2005) Metaphor Corner: "U Frithhain" The Sunsong. The Hypnotherapy Journal. Summer 2005, Issue 2, Volume 5, p 32.
- [21] Laguna, G, (2005) Tradición Clásica. A Blog Dedicated to the Classical Tradition. wapURL: QO4LAUX.
- [22] de Gaynesford, M (2007) No Direction Home? Wittgensteinian Therapy and the Private Language Arguments. Language and Communication. Volume 27, pp 178 203.
- [23] Spencer, L and Krauze, A (1996) Introducing Hegel. Cambridge UK: Icon Books Ltd.
- [24] Spirit and Self: Self Matters with Dr Phil McGraw: Fundamental Characteristics of Internal Dialogue. wapURL: YXPD3XD.
- [25] Hall, S and Hopkins, J (1976) The Meta Software of Video. Studio International: Video Art Issue. May June 1976.

[26] Jones, S (2007) The Brain Project: Notes on the Cybernetics of Language and Video. wapURL: NYI91V1.

[27] Chomsky, N (interviewed); Brown D J (2005) Conversations on the Edge of the Apocalypse: Contemplating the Future with Noam Chomsky, George Carlin, Deepak Chopra, Rupert Sheldrake, and Others. New York NY: Palgrave Macmillan.

[28] Morin, A (2003) Science and Consciousness Review: 20 April 2003: Inner Speech and Conscious Experience. wapURL: NRW91T4.

[29] Duval, S and Wicklund, R A (1972) A Theory of Objective Self Awareness. New York NY: Academic Press.

[30] Morin, A (2003) Eprints: Cogprints: A Neuro-socio-cognitive Model of Self-awareness with an Emphasis on Inner Speech. wapURL: 71QKXVA.

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