

CHARACTERISTICS OF AN EFFECTIVE INTERNAL DIALOGUE IN THE ACQUISITION OF SELF-INFORMATION

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ABSTRACT

This article raises the question of how self-talk mediates self-awareness. It is argued that the process of acquiring self-information can be seen as a problem-solving task, and that self-talk can facilitate this process (as it does for any other problem) by promoting a precise formulation and approach to the problem, by adequately focusing attention on the task, and through constant self-evaluations. A complementary analysis of the possible characteristics of an effective internal dialogue in the acquisition of self-information is undertaken. Among other things, taking others' perspective through self-talk, possessing a rich vocabulary about oneself, and paying attention to the content of one's self-talk are believed to be important in that respect. Clinical implications raised by this analysis are also discussed.

The hypothesis of the existence of a relation between language and self-awareness (and/or self-consciousness) is not new. A great number of philosophers, social psychologists, cognitive psychologists and neuropsychologists—just to mention these disciplines—made allusion to this hypothesis. For example, according to Popper and Eccles, “. . . the origin of the self-conscious mind somehow goes together with the origin of language” [1, p. 553; see also 2, p. 102]. DeWitt raised the possibility that “. . . the presence of language marks the difference between the presence of self-consciousness and the complete absence of any awareness of self” [3, p. 42]. And Brown proposed that:

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 object in that world. Self-awareness requires a further differentiation within self—language fulfills this need [4, p. 86].

What characterizes these quotes is their vagueness—hence the “somehow” in the Popper and Eccles quote. As Churchland noted, one can ask: “What is it about self-consciousness such that it requires linguistic representations, and what is it about language such that it brings about the special capacity for self-consciousness?” [5, p. 88]. Part of the answer may lie in the following suggestion: it is the capacity we have to *talk to ourselves*—and not language per se—that should be linked to self-awareness. Vygotsky [6] and Mead [7-9] recognized the potential importance of inner speech in self-awareness. Sokolov wrote that:

The elements of inner speech are found in all our conscious perceptions, actions, and emotional experiences, where they manifest themselves as verbal sets, instructions to oneself, or as verbal interpretations of sensations and perceptions. This renders inner speech a rather important and universal mechanism in human consciousness and psychic activity [10, p. 1].

Concerning patients suffering from cortical damages, Ojemann noted that:

As recovery occurs, conscious experience returns as well. It seems to return in parallel with the phenomenon of inner speech. Inner speech may be limited, restricted, concrete, foggy, not normal after these kinds of lesions, but at least conscious experience has come back [11, p. 161].

Moss related his personal experience of aphasia during which he lost the ability to self-talk and with it his sense of self: “. . . for the first 5 or 6 weeks after hospitalization I simply existed” [12, p. 10]. And more recently, Flanagan proposed that “Being self-conscious . . . requires that we engage in a temporally extended soliloquy or in a temporally extended dialogue with others” [13, p. 194].

This more explicit version of the initial hypothesis also has antecedents; but what *is* novel is an effort to disentangle the numerous imprecisions it covers. For instance, does the postulated relation between self-talk and self-awareness really exist? Morin and colleagues have shown that the hypothesis is both logically and empirically plausible [see 14-17]: people characterized by a high disposition to focus inward *do* use inner speech extensively, and vice-versa. And why would self-talk be of importance in self-awareness? In what way, exactly, would inner speech allow the individual to learn about himself or herself—to develop a sense of self, a self-concept? Morin began to address these questions elsewhere [18; see also 19]. Social mechanisms initiating self-awareness could be reproduced by self-talk. Also, self-talk creates a redundancy of self-information within the self, and with it a distance between self-information and the individual (the self); this distance renders self-awareness possible. Now, if one assumes that self-talk

indeed plays a substantial role in the acquisition of self-information, one can also ask: What might be the characteristics of such a self-talk, as opposed to sterile self-verbalizations? My goal here will be to pursue the matter with special attention to this question and to the clinical implications it raises.

THE ACQUISITION OF SELF-INFORMATION SEEN AS A PROBLEM-SOLVING PROCESS

Besides what has just been suggested to this effect, another way to understand the role of inner speech in the acquisition of self-information consists in conceiving the process of self-observation as being a problem-solving process, and self-talk as being a cognitive tool the individual uses to reach a "solution" to this "problem." In other words, attempts made by the individual to understand himself or herself (self-awareness), to acquire self-information, can be seen as a problem-solving task. Let me first elaborate on the importance of inner speech in problem resolution.

Self-Talk and Problem-Solving

The role played by self-talk in problem-solving is well known [see 20-27]. Many authors agree on the existence of at least four categories of self-verbalizations that help guide the process of problem-solving. Kendall and Hollon propose the following categories: 1) self-verbalizations allowing the formulation of a precise definition of the problem ("OK. What's the problem? What am I suppose to do?"); 2) self-verbalizations promoting an effective approach to the problem ("I must think of ways to solve this problem"); 3) self-verbalizations helping the subject to focus on the problem ("No. That's not important, I must not focus on this. I must work on *that*"); 4) evaluative self-statements the subject uses to either (a) praise himself or herself when a good solution is reached ("Good! I did it!") or (b) readjust his or her strategy when an error is made ("No. That's not it! That's OK, though. I must try again and take my time") [21]. Similar categories of self-verbalizations are also suggested by Meichenbaum and Goodman [28]. In the following the authors relate what would be effective self-verbalizations emitted by a child working on the reproduction of a drawing:

Okay, what is it I have to do? You want me to copy the picture with the different lines. I have to go slow and be careful. Okay, draw the line down, down, good; then to the right, that's it; now down some more and to the left. Good, I'm doing fine so far. Remember go slow. Now back up again. No, I was supposed to go down. That's okay. Just erase the line carefully . . . Good. Even if I make an error I can go on slowly and carefully. Okay, I have to go down now. Finished. I did it [28, p. 117].

In this example, we have a definition of the task ("You want me to . . ."), self-verbalizations promoting an effective approach to the problem ("I have to go slow . . ."), a focus of attention on the problem as well as self-instructions ("Remember go slow. Now back up again."), self-reinforcement ("Good . . ."), and strategic readjustments when an error is made ("No, I was supposed to . . ."). Harris discusses the same categories of self-verbalizations as applied to a puzzle-task [20].

Self-Awareness Seen as a Problem-Solving Process

A problem represents a question to be solved, related either to an unknown result to be found from some data, or to the finding of a method allowing to reach a supposedly unknown result [29]. Now, the self can be conceived as *a question to be solved* ("Who am I? What characterizes me?"), where the *unknown result* is self-knowledge, and self-information, *some data* from which a result can be found. (More simply and in so far as an acquisition of information—the process of learning—represents a problem, it could also be suggested that an acquisition of *self-information* [through self-observation, self-awareness] is a problem as well.) This analysis of the role played by self-talk in problem-solving can now be applied to the problem of the self.

Self-Talk and Self-Awareness

Table 1 illustrates the way by which an internal dialogue made up of self-verbalizations promoting the process of problem-solving (the four categories identified earlier) can also facilitate an acquisition of self-information. It displays a fictive internal dialogue through which the individual tries to understand himself or herself. For the sake of simplicity, the illustration is restricted to two possible levels of self-analysis: a general level consisting in a search for one's own identity (the global content of one's self-concept), and a specific level referring to attempts made to identify precise self-aspects. Note that a new and important category of self-verbalizations has been added: accurate answers to the questions the individual raises about himself or herself. This addition makes the entire process of verbal self-analysis, as illustrated here, more realistic.

The line of reasoning developed here, together with the illustration shown on Table 1, makes it clear that the *content* of self-talk is of crucial importance. Moreover, this analysis of the role played by self-talk in facilitating the acquisition of self-information will shed light on yet another question on which I will focus right now: What distinguishes an effective internal dialogue (as far as an acquisition of self-information is concerned) from an *ineffective* internal dialogue?

Table 1. Fictive Internal Dialogue Promoting Self-Awareness

Categories of Self-Verbalizations	Level of Self-Awareness	
	General	Specific
Definition of problem	"Who am I?"	"How did I react?"
Problem approach	"Tough question! I think I should be systematic in trying to figure myself out. I might keep a daily log in which I note my feelings, thoughts and behaviors; or I could read books on methods to follow in order to learn about myself."	"I will reconstruct the event in details and try to remember everything I did, my reactions, etc."
Accurate answers to the questions about oneself	"I think it depends on the situation I'm in. For instance, sometimes I'm <i>x</i> , but when I'm with friends, I rather have this tendency to be <i>y</i> . My values in life are <i>z</i> , <i>c</i> , and <i>d</i> . These values are important because my attitudes—that is, <i>e</i> , <i>o</i> , and <i>p</i> , are dependent upon these values. In my love relationships, I would say I'm <i>k</i> . Emotionally, I'm a person who usually feels <i>r</i> ." (And so on.)	"The first thing I did was <i>z</i> . Then, <i>x</i> happened, and I reacted by saying <i>w</i> ." (And so on.)
Focus of attention on problem	"No! If I start thinking about this, I won't make it. I must concentrate!"	"No! <i>G</i> (a given event) is of no importance here! The important thing, really, is the way I reacted."
Reinforcing self-statements	"Very good! I feel I'm getting closer. Everything seems clearer now!"	
Readjustment of strategy	"No! That's not it! I must take my time and think more. That's OK. After all, this is a difficult question."	

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Why Do Some Individuals Constantly Talk to Themselves about Themselves without Acquiring Much Self-Information?

This question is of particular importance to theorists and clinicians alike. For theorists, because its answer bears indirectly on the problem of the nature of the relation between self-talk and self-awareness. For clinicians, because psychotherapists regularly witness in their practice clients that compulsively talk to themselves about themselves without learning much about themselves; such clients, one might suggest, "beat around the bush" to the point of being obsessed with their psychological difficulties despite—or because of—frequent and yet ineffective self-talk.

One first possible answer to this question stems from my analysis of the importance of self-talk in problem-solving.

Absence in the Internal Dialogue's Content of Self-Verbalizations Promoting the Process of Problem-Solving

Obviously, an internal dialogue in which there is no formulation of a precise definition of the problem, no effective approach to the problem, no adequate focus on the problem, no accurate answers to the questions the individual raises about himself or herself, and no evaluative self-statements, is likely to represent a poor source of self-information. If we refer to Table 1 only to concentrate on the example of a specific self-analysis, and then compare this fictive internal dialogue with the following one, my point should be made clear: "How did I react? How should I know? There were so many people involved! Maybe I should wait for a while and see what happens (*deficient problem approach*). I simply know that z first happened and that j (a person) did p ; everything else is confused (*inaccurate answers to the question*—the individual does not focus on his or her behavior). G (a given event) might be of importance here—probably more than any feeling I had (*ineffective focus of attention*). Oh! What the H . . . ! Why would I lose my time thinking about that!" (*absence of reinforcing self-statements—no readjustment of strategy*).

Failure to Take Others' Perspective Through Self-Talk

I suggested elsewhere [18] that self-talk mediates self-awareness by reproducing social mechanisms leading to self-awareness. Self-awareness has been defined as the capacity to become the object of one's own attention [30]. When self-aware, the individual finds himself or herself in the position to identify his or her personal characteristics and to reflect on the content of his or her subjective experience. Now, according to Mead, the original phenomenon leading to self-awareness is

social in origin: we are first confronted with different ways of thinking, feeling and behaving; this confrontation allows ourselves to perceive that we are endowed with unique qualities; and this in turn motivates us to take others' perspective to gain an objective vision of ourselves and to acquire self-information [7; see also 31, 32]. My proposition is that conversations with ourselves, during which we talk to fictive persons, permit an internalization of others' perspective—and thus the acquisition of self-information.

In this context, talking to oneself without taking others' perspective will lead to a poor acquisition of self-information. Also, self-talk can induce an *ineffective* perspective-taking of others and a *sterile* self-observation. Consider first the following example of an effective perspective-taking of others: "X might wonder why I did that. She (or he) should know that my relation with y is serious, and that although I show her (or him—i.e., x) affection, it is y that I am in love with. X shouldn't feel hurt if I didn't accept her (or his) advances—or maybe I wasn't clear enough to start with?" This self-talk is effective because the person is able to identify his or her actions toward x and his or her feelings toward y—hence an acquisition of self-information. Consider now this second example: "X didn't talk to me since the last time we saw one another. She (or he) seemed disappointed . . . I simply don't see why she (or he) would feel that way. Maybe it's because of y? Besides, I wonder what's her (or his) opinion about all this! X should know . . . know what, in fact? God! All this is far too complicated!" Here, the same individual, *although he or she takes others' perspective*, acquire very little self-information.

It should be noticed here—and this is true for the above as with forthcoming examples of self-talk—that an internal dialogue mediating poor or inaccurate self-information is usually made up of as many words as an effective one. In other words, an internal dialogue can be highly verbose and yet unproductive in the way of acquiring self-information. The same observation can be made about the *frequency* of self-talk (see below). Hence, again, the following proposition: *the content of self-talk is of cardinal importance.*

Rumination and Poverty of Vocabulary about Oneself

To mentally ruminate the same thoughts about oneself certainly represents a weak source of self-information. It is one thing to entertain with oneself structured verbal conversations in which an acquisition of self-information is undertaken and successfully attained, and it is something else to unwearingly repeat the same self-statements about oneself. Let us consider the following examples of self-talk. A first individual might say: "Indeed, my main dish was not a success . . . But my *hors-d'oeuvres* were appreciated, and my dessert was very good! I'm a pretty good cook after all." A second individual might say: "My main dish was a disaster! I put too much coriander . . . I'm no good! I'm a bad cook! Won't I ever learn how to cook! God, I'm a bad cook! I'm no good." In the first example, the

individual learned (a) that his or her main dish was not very good, (b) that his or her *hors-d'oeuvres* were appreciated, (c) that his or her dessert was good, and consequently, (d) that he or she is a pretty good cook after all. The second individual, *although he or she talked to himself or herself as much as the first did*, concluded only one thing about himself or herself: he or she is a bad cook—he or she is no good.

Let me now consider two additional examples of self-talk:

(1) "This event makes me feel sad . . . I feel sad. I'm very sad."

(2) "This event makes me feel sad . . . I'm disappointed, discouraged; I feel bitter."

In the first example (1), a single emotion is identified: sadness. In the second example (2), sadness is also identified, but this emotion is considerably tinged by the use of a rich vocabulary: sadness also consists of disappointment and discouragement, which in turn brings bitterness. Thus, a rather superficial analysis of one's subjective experience can be significantly deepened with the use of a sophisticated vocabulary; the global analysis of an emotion (first example) transformed itself into the identification of a relatively rich emotional experience by using different adjectives (second example). An individual can say to himself or herself "I'm pretty!"; but if this person also knows and uses adjectives such as *charming, attractive, seductive, superb, lovely*, etc. when describing himself or herself, it is clear that this person will learn more about himself or herself. Hence a relation between the richness of vocabulary one uses in self-talk and self-knowledge.

Importance of Paying Attention to What We Say to Ourselves

To assimilate any given information verbally conveyed by someone else, *an individual must listen, pay attention*. This may be common sense, but such an observation is highly pertinent when it comes to the question of the effectiveness of self-talk in the acquisition of self-information, since, to a certain extent, we must listen and pay attention to what we say to ourselves in order to acquire any self-information we identify.

It happens to all of us to talk to ourselves and to keep a rather diffuse recollection of the content of our internal conversation. However, in other circumstances, we will consciously talk to ourselves and pay enough attention to our internal dialogue so that we will subsequently be able to remember in much details the steps of our reasoning. It is on these occasions that we sometimes take important decisions or draw no less important conclusions about our behavior. These decisions or conclusions will leave permanent traces in our mind. In order for an information extracted from this process to persist in our memory, it thus seems necessary to pay attention to what we say to ourselves. It seems that a form

of metacognition applied to self-talk could promote the acquisition of self-information.

So, to summarize: an internal dialogue made up of self-verbalizations guiding the process of problem-solving is likely to facilitate the acquisition of self-information; the same might be said of conversations with ourselves that will induce an effective perspective-taking of others; and persons using a rich vocabulary, talking to themselves in a structured manner, and paying attention to their self-talk, will obviously learn more about themselves than people who do not. These are, to my opinion, the main characteristics of an effective internal dialogue in the acquisition of self-information.

CLINICAL IMPLICATIONS

High Self-Consciousness and Psychological Disorders

A relatively recent development in psychopathology has been the establishment of a relation between high self-consciousness and many psychological dysfunctions. As a matter of fact, "(...) it appears difficult to find a psychological disorder that is not characterized by a heightened degree of self-focused attention" [33, p. 165]. Depression, test anxiety, social anxiety and generalized anxiety, alcohol abuse, and possibly schizophrenia, mania and psychopathy are accompanied by high self-consciousness. Baumeister suggests that compulsive self-observation can even result in suicide [34]. The exact role of self-focused attention is unknown. It might bring about (i.e., cause) disorders, govern (i.e., mediate) them once initiated, or both. More precisely, excessive self-consciousness could intensify negative affects, serve as a vulnerability factor by placing individuals at risk for the onset or prolonged maintenance of dysfunctions, or contribute to the constellation of variables that bring about dysfunctions. Ingram proposes that a particular kind of self-focused attention accompanies disorders: an excessive, sustained and rigid internal attention called "self-absorption" [33]. The "excessive" dimension refers to the degree of self-consciousness, the "sustained" dimension, to its duration, and the "rigid" dimension implies an exaggerated reliance of internal attention across a variety of situations where it is not appropriate. Hence, chronic self-focused attention per se is not dysfunctional; an inability to shift out of this state in response to situational demands is. And of course, the content of self-focus is also important—self-degrading in depression, disorganized in schizophrenia or fearful and harmful in anxiety.

Now, if self-focused attention is related to clinical disorders, and if these disorders improve as a function of intervention, the same intervention methods may work by decreasing self-focusing. Insofar as inner speech represents an important mediator of self-consciousness, it would certainly be interesting to try to reduce patients' propensity to self-talk—or to modify its content—with the aim of limiting obsessive self-observation by the same token.

Low Self-Consciousness and Psychological Dysfunctions

Another dimension of the problem has been, as far as I can tell, systematically neglected in the literature: the opposite tendency—i.e., a propensity to *very low* self-consciousness—is likely to be associated with other psychopathologies as well. The absence, or the lack, of self-observation might have less spectacular effects than its obsessive counterpart, but these effects could be more pernicious. It is generally suggested that self-consciousness should be reduced when it is too high; but I would propose that the opposite effort should be undertaken in cases where self-consciousness is too low. Surely some psychological disorders yet to be identified (existential crisis characterized by a loss of personal identity and long-term goals, for example) are caused, in part, by a lack of information on oneself—or, for that matter, a deliberate tendency to avoid oneself. I would suggest that in similar cases, the subjects' self-talk should be expanded so as to encourage self-observation. Techniques to modify self-talk [see 22-35] could be used to develop self-verbalizations that would promote self-observation—and hopefully affect self-consciousness in the long run.

The same approach could also apply the the development of a rich self-concept. The therapeutic potential of such a development becomes more apparent when one considers “possible selves”—i.e., conceptions of oneself in the future. Possible selves represent ideas of what an individual might become, would like to be, or is afraid of becoming [36]. Since they represent specific self-representations of desirable and undesirable states together with ideas of how to attain or avoid such future states, possible selves help in organizing and guiding future behavior. In other words, possible selves are powerful motivational tools for change [37]. To promote the development of precise visions of oneself in the future might foster change in desirable directions. Now, since the self-concept (as well as possible selves) consists in a coherent and organized set of self-information [38] (“self-information” being in fact what Markus [39, 40] calls “self-schematas”), it is likely that self-talk plays a role in its formation [see 19]. Here again, it would be interesting to promote the use of self-talk as a means of developing rich self-concepts and possible selves.

Bias Self-Concept and Psychological Problems

So far I have identified two possible psychotherapeutic strategies. Essentially, one could either increase self-talk about oneself to alter self-consciousness accordingly when a person lacks self-information, or one could lessen self-talk with the opposite goal in mind when a person is too self-focused. In the first case I would propose that the person's self-concept is *poor*, and in the second one that it is *rich* but too often the object of attention. But some people have a rich self-concept, only it is *inaccurate*—the self-image, although sophisticated, is biased, unrealistic. This can lead to painful consequences. Such persons, one

might argue, will base some fundamental life decisions on false self-information and will find themselves in awkward situations—for instance, holding a job that one doesn't really enjoy nor has the aptitudes for, or carrying unsatisfying love relationships with people incompatible with oneself. At the extreme, the image that comes to mind is that of some schizophrenics, who are very frequently in a state of self-contemplation and possess a complicated—though inaccurate—self-concept. The typical (and caricatural) case is the patient who thinks he or she is a genius: he or she is trapped, so to speak, in his or her own private world and does not question the validity of his or her own self-perceptions. I would suggest that persons having a biased self-concept *do* talk to themselves a lot *but do so without taking others' perspective*.

A third psychotherapeutic intervention might thus consist in an effort to pull these persons out of their imaginary world by teaching them to talk to themselves *as if they were talking to someone else*—that is, to induce an effective perspective-taking of others. Self-talk about oneself should first be radically reduced in favor of self-verbalizations about others, where the individual would be encouraged to analyze other person's standards and behaviors and to gradually internalize them, and then an internal dialogue about oneself—in which an objective vision of oneself could now be possible—could be restored. So the schizophrenic, for example, would have to stop saying to himself or herself "I'm a genius" and rather say "X claims he (or she) is a good musician—he (or she) *does* play clarinet well . . . Y asserts that he's (or she's) a poor carpenter—and indeed every thing he (or she) builds is shaky and ugly." In this therapeutic process—providing its evolution be closely monitored—the client would ultimately come to say to himself or herself "And me, who claim to be a genius—God I don't do works of a genius!" At this point a revert to self-talk about oneself would have taken place, but this time allowing the client to take an objective vision of himself or herself, and where an acquisition of self-information and a simultaneous transformation of a previously biased self-concept would also be possible.

CONCLUSION

Most of the ideas presented in this article are of course speculative, one possible reason being that cognitive processes underlying self-awareness are still unknown and extremely difficult to study in an experimental paradigm. I proposed here and elsewhere that self-awareness is mediated by self-talk: when self-aware, the individual, more often than not, talks to himself or herself. (Note that imagery might also play a role in self-awareness, see [41]). More specifically, I addressed the question of how inner speech could convey self-information, and suggested that the process of acquisition of self-information is a problem that a judicious use of inner speech could help solve. This analysis, together with other considerations, allowed me to identify possible characteristics of an effective self-talk in the

acquisition of self-information; clinical implications raised by these were also discussed.

The importance of self-talk in human behavior has been—and still is—the subject of numerous studies. But one potential function of inner speech has nevertheless been neglected: its role as a cognitive process involved in the acquisition of self-information. I think this important function of inner speech deserves further attention, especially when one considers its clinical ramifications.

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