The Invisible Workbench: Forming and Sculpting Mental-Emotional Fields

Conversation with Michael Jung

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C. O. Scharmer: Michael, what led you to co-initiate a “Knowledge and Leadership” research initiative and how does it relate to your journey?

I. Context and Question

Michael Jung: Very early on, at the age of 13 or 14, I developed a strong interest in philosophy, and particularly in epistemology. I remember quite well clinging in an almost unreasonable way to the assumption that these questions must have an answer. This is of course in stark contrast to the perspective of much modern philosophy.

COS: Say more.

Michael Jung: I mean questions about the possibility of understanding the world around us, and philosophical questions about meaning.

The entire analytical tradition of philosophy up to that point in time had reached this simple conclusion: **One must distinguish questions that can be answered from those which cannot**. And many more questions than we commonly suppose are so constituted that they cannot be answered.

On one level I accepted the analytic perspective, perhaps even slavishly for a while. Nevertheless at a deeper level I was somehow possessed by the conviction that there *must* be answers to these questions.

Then, after my studies – in which philosophy continued to play a big part – I probably lost the courage to live out my original optimism in a philosophical context. But I was convinced that this optimism was relevant to economics. That I finally wound up at McKinsey is pure chance, but looking back over the years reveals a consistent program of research with an emphasis on practice.

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[1] The conversation with Michael Jung took place as part of a global interview project with 25 thinkers on knowledge and leadership. The project was sponsored by McKinsey & Company and the Society for Organizational Learning (formerly the MIT Center for Organizational Learning). The interviews and the summary paper are accessible as free downloads from www.dialogonleadership.org.

COS: Tell me about your research.

Michael Jung: My current research interests go back about 15 years, to a point just after my dissertation, as I came to believe that it is imperative to rethink the fundamental way in which economic questions are posed. I had the impression that economics needed to move away from the dominant paradigm – the selection of the optimal means for achieving given ends – towards the selection of the optimal ends themselves. This was true at all levels: individual, group, and organization. **In a word, economics increasingly has to be concerned not with scarce means, but with scarce ends.**

That of course entails an entirely different research program, one that is closely bound up with organization theory. I have accordingly spent a large proportion of my time in the last four years trying to understand organizations and their performance.

II. Invisible Architectures of Organizational Performance

Initially I focused on phenomena that our usual theories cannot explain. How is it that certain groups, individuals, and companies sometimes reach performance levels that lie well beyond the norm, levels that we are unable to reproduce reliably? And how is it that despite the application of prodigious intelligence and leadership capability we stumble again and again on our way to critical business goals?

These questions led to the development of the theory – or perhaps only the beginnings of a theory – which is documented in two booklets.[2] Over the last year we have had very good experience with the concept of the performance chain, which enables us to identify the bottleneck in the development of internal organizational architecture. We have also had very good, very practical results with a matrix that lays out the performance space. Group performance, both in an economic and in an organizational sense, can be defined as a function of the quality of direction and the quality of interaction in the group.

COS: Michael, before we continue, I would like to return briefly to the point of departure. You said that you started with a philosophical interest in questions about knowledge. Then it became a driving interest in your studies and you carried it with you into your professional life at McKinsey. What happens when someone with such a philosophical interest maintains it in a professional career? How does the underlying philosophical question change under these circumstances? Or does it simply continue as before?

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[2] See ***Advances in Organizational Thinking and Change Management*** (Vienna: Feb. 1998), and ***Reconsidering the Nature of Leadership*** (Vienna: Oct. 1998).

Michael Jung: It does not change. It continues as before with undiminished intensity, **because every practical problem that a management consultant encounters is nothing other than a very specific configuration of underlying questions**.

Over time I have certainly developed the practice – one that my colleagues occasionally find irksome – of looking for what is fundamental in each specific problem, and not only emphasizing it in the particular solution chosen, but now and then also making direct use of it. For me over the years there has always been a sort of existential necessity in working on the fundamental questions that underlie this or that concrete problem.

COS: So this is not, then, something that has run in parallel with your professional life, but rather a consistent part of your real work.

Michael Jung: Yes, a consistent part. I have long thought that this is best captured in a passage in Robert Musil's novel *The Man without Qualities,* where Ulrich speaks about the foundation of an "Institute for Precision and Soul." The degeneration of much management consultancy work into pure engineering – a phenomenon I cannot deny – leads ultimately to failure because the "soul" is blinded.

COS: But what does soul have to do with management consultancy?

Michael Jung: Well, consider the now over-familiar statistic on the average level of energy that employees commit to their work. When **Tom Malone says that a 40% commitment is sufficient to get by in a typical company** without attracting any attention, I of course must ask myself, What is wrong here? When we talk about a lack of motivation, we are operating within a reference system in which motivation is considered a controllable property of individuals. But it is more likely that the company with its roles and processes has failed to reach the souls of its people, and so congruence between personal identity projects and the course of corporate development does not arise to any great degree.

COS: So you posed to yourself this question about the cause of the variances in levels of organizational performance and of personal energy. What happened then?

Michael Jung: About four years ago I examined myself for about six months, asking myself whether I had the confidence to take up the organization theme, whether in fact I could commit not only to working on the problem, but actually to develop something that will be regarded as a truly significant step towards solving the problem. So we asked ourselves whether we could develop a model of organizational performance that would enable us to understand the phenomenon in sufficient depth that our intervention efforts do not remain superficial.

And of course I had doubts. If there were no doubts, the question we were addressing would probably be too simple. In any case, I have not hit the 40% level very often in recent years!

III. Current Boundaries

COS: What are the relevant themes and insights here, or perhaps the boundaries that block our progress today? I particularly mean **boundaries** in either research or practice where you sense that a much greater level of effort could actually take us a big step forward.

Michael Jung: I find these interviews very exciting, for they lead to questions that I have never thought about in quite the same way. So let's continue a bit with what is just occurring to me.

Barrier #1: Limits of differentiation into disciplines

In the first place it seems that there are many self-imposed boundaries. Among these I am thinking particularly of our way of conducting scientific activities, which more or less follows an industrial paradigm. The ever finer division of labor among researchers means that ever more precise but also more restricted segments of total reality become the objects of scientific research. **My hypothesis is that for topics such as leadership, knowledge, or even strategy, our traditional research disciplines now hinder us more than they help us. In reality we are seeking causal relations in segments of reality that simply do not appear *within* such segments. They appear only when one considers the whole.** That is one self-imposed boundary.

Barrier #2: Limits of empiricism

I see another self-imposed boundary in a research tradition which is largely Anglo-Saxon. It stresses the importance of empirical evidence for each proposition and hypothesis. These days we are a victim of a scientific ideology that takes research in the natural sciences as its model and insists that every science must move in a similar direction over time.

It seems to be that **the more we shift our attention from palpable, concrete, visible things to intangible ones – to individual and collective intellectual phenomena, if you will – the dimmer the prospects become for making any headway with the classical sort of empirical research.** In fact, I would say that much of this empirical research, laid down in innumerable dissertations, actually proves the bankruptcy of this research tradition. To be sure, when dealing with topics such as knowledge, practical experimentation is methodologically sound. But I do not think it is sound to try to offer definitive empirical proof. The underlying phenomena are much too complex, and in many cases not tangible enough, to achieve that.

COS: I see.

Barrier #3: Limits of traditional research roles

Michael Jung: I think that there is a third self-imposed boundary, one that is created in a somewhat more complicated way. I'm afraid that the field of research that particularly interests us here is one in which knowledge is the outcome of a very long process. Research activities in the narrow sense are stationed along the way, but these must be combined with the practical experience of underlying structures. This mixture probably does not become fully productive until we have worked in the field with avid curiosity over a very long time. But if we look around to see who is engaged in a practical way with topics such as organizational dynamics and knowledge management, we find that the long stretches of activity are largely the province of academic researchers. Admittedly they are taking steps in the direction of practice more frequently these days, but they take these steps as academic researchers, not as practitioners. **They are therefore probably hampered by limitations inherent in their role, which is that of an observer, not a quasi-participant.**

On the other hand, consultants can claim that they engage in practice as practitioners with a deep scientific inquisitiveness. Yet the large majority of scientifically oriented projects in consulting firms are very short: A year, eighteen months, counts as a long period of research. But in my view that is much too short to get very far in such a field. This will be a difficult problem to solve, but I am sure things could be done differently.

Barrier #4: Limits of understanding the human condition

Beyond that I think there are intrinsic difficulties in what we are trying to understand better through our research. I am referring here to fields such as organization, leadership, and knowledge, each of them a broad category within which we can define very specific questions. When I think about where we are not getting very far at present, it turns out to be topics where our insufficient understanding of the human condition seriously impedes our progress.

Here are a couple of examples. Mihalyi Csikszentmihalyi uses the well-known distinction between active and latency periods to describe the discovery process. We all know from experience that we cannot simply produce an idea on command when we need it. Often there is no direct rational route to interesting ideas. It seems we need to take a sort of detour into the semi-conscious or unconscious mind, and we really have very little grasp of what is going on there. Therefore we are in no position to effectively manage our creativity, or our creative process.

I have always been struck by a related phenomenon. In dialogue and group interaction we have a vehicle which can mobilize latent knowledge far more effectively than a monologue with oneself ever could. I have carefully observed dialogue processes for some time now, always asking myself whether I could predict even approximately what would be articulated in the end. The answer is an emphatic no. The next question is whether these dialogue processes naturally converge on a roughly equivalent level of quality, and again the answer is no. Could we systematically influence the quality of such dialogues? Here the answer is yes. Why, then, don't we do so?

Imagine an organization that could really exploit the power of creative dialogue! I think we currently tap no more than 10–20% of the potential here. And this, I think, is an important factor for explaining dramatic – even absurd – differences in performance both between and within organizations. We recognize these differences in our practice, but at the moment this recognition does not make us any more capable of managing performance in a conscious, goal-directed way.

COS: What is it that you experience in this creative dialogue space, both externally and within yourself?

Michael Jung: I think your question points to yet another boundary, one that is currently relevant and by no means easy to shift. I think others also have recognized this one.

Barrier # 5: Limits of language

In contrast to the description of organizational structure or of strategies, our language for describing what we experience in dialogue is still far too limited. Let me be more specific. We have not developed the semantics necessary to adequately organize our "object space," the space of our mental models, whether they apply to the whole business, to components of it, or to organizational problems.

Of course we turn to literature and other realms for as much help as we can get, and there we find a host of metaphors in use. But a quasi-clinical description of what actually happens in dialogue processes is simply not to hand, at least not in a readily usable form. Therefore we naturally have difficulties in discussing the phenomena and in reaching agreed generalizations over what we experience in individual cases. And I am convinced that this sets severe limits on what we can achieve.

COS: What are, as Kant might say, the "conditions for the possibility" of creative dialogue in organizations? Or what are the boundaries that prevent us from entering this space? Are they the five boundaries that you have already mentioned, or are there even more?

IV. Three Limits of Practical Work

Michael Jung: The boundaries which we experience in our practical work are either closely coupled with these research boundaries or are of an entirely practical nature.

COS: What are these boundaries?

Boundary #1: Pragmatic solipsism

Michael Jung: Well, the first practical boundary certainly lies in the educational system to which we have all been exposed. It leads to something that I would call a sort of “pragmatic solipsism.”

COS: Pragmatic solipsism?

Michael Jung: It’s the belief that the categories that we use to describe situations, the specific descriptions we allocate to these categories, and the judgments that we make for each are more or less the same for each person.

In our research we have come to place great worth on exploring the actual mental landscapes of each individual through “Deep Structure Interviews.” Moreover, through consensor polling in workshops we have been able to establish how great is the non-congruence or even incommensurability of mental worlds. Pragmatic solipsism is therefore utterly untenable.

This is a major practical problem, but one which can be overcome. We have accumulated much empirical data that shows that this is not a simple problem of differences of opinion that sometimes cannot be settled quickly. Rather, there is a very complicated set of strongly divergent worldviews. Paradoxically, people can decide between alternative deeply held worldviews much more readily than they can sort out superficial differences of opinion.

Boundary #2: Seeing mental models in use (dialogue)

There is also a second problem in the area of skill. Most employees in companies – including managers – are simply incapable in a dialogue of distinguishing between explicitly created models on the one hand, and the manifold ways in which the views of individuals unfold in the presence of such models on the other. It is general practice to make no such distinction between mere differences of opinion and divergent worldviews. Rather it is widely assumed that all participants depend upon the same reference system.

COS: So then the second boundary is about the capability of creating a common dialogue culture where it does not already exist. And this is accomplished by dealing directly with the divergent reference systems.

Michael Jung: The dialogue must be designed in such a way that the crossing of thresholds is a fundamental condition for changing perspectives and behaviors. But we observe in many cases that companies – particularly under the “continuous improvement” banner – assume that improvement entails getting incrementally better over a continuous period of time. I think we recognize today that this is not so. There is a step function at work here, and the bigger the step, the more likely we are to achieve a truly radical change in behavior.

COS: So the second boundary is about competence in dialogue. Could you return again to what you said about it at the beginning?

Michael Jung: When we consider these practical cases, we are naturally prompted to ask the question, Why is this so? And this question of course has an obvious answer: We have only a limited ability to look into our own heads and hearts, and it stands to reason that our ability to look into the heads and hearts of others is even less. We are, you might say, trying to manage the operation of aggregates that we cannot take apart: Direct access is scarcely possible.

The practical conclusion from all this is that there would be a lot of value in making "internal organizational architecture" – the inner states that are at work in individuals and, aggregated, in groups – visible to a much higher degree than is the case today. That is to say, there is value in being able to assess the quality of understanding in individuals and groups, and in being able to use the assessment as input for leadership and knowledge management programs.

Now the things we are dealing with here are invisible, but we nonetheless have the ability – or could have the ability – to shape them to some degree. We must therefore take pains to do so. And we are indeed doing so, both through documenting confidential Deep Structure Interviews and through surfacing the opinions held by members of a group. The consensor polling technology is helpful for both.

Boundary #3: Sensing and discovering the new

There is a third boundary that only appears in its full significance and clarity when we have made some progress in moving beyond the other two boundaries.

Let's stay with the topic of dialogues in a business setting. Now the participants of course do not start such dialogues with empty hands and heads, but are equipped with conceptual systems. Our conceptual systems are discrete rather than continuous in nature. The discussion around the table runs along tracks that are laid down by the commonly available conceptual systems. Leaving these tracks means the train is derailed. Now obviously someone who always travels on the same tracks comes to know only part of the landscape. Perhaps the most beautiful parts cannot be seen from the tracks.

I believe that individuals – particularly leaders – gain a large part of their authority from their ability to reconnoiter the terrain well beyond the tracks. A command of language plays a role here, but imagination is also important. It also has something to do with one's ability to orient himself, to determine whether the territory in which he moves is taking him where he wants to go or leading him astray.

COS: I see.

Michael Jung: A third party could help, but of course most of the time he is traveling with the same limitations as the other occupants of the train.

From this I conclude two things. First, there is an optimal diversity of participants in a dialogue, and most situations that I know of are far removed from this optimal diversity. Second, we must invent and teach a sort of "meta-doctrine" for forming concepts. This would enable people to deal with both the possibilities and the boundaries of their given concepts in a more autonomous way than is now usually the case.

In some cases the gap between what the current language offers and what is actually needed in the situation is simply immense and intolerably limiting. A good example of this is a concept that in recent years has inevitably become very prominent: Globalization. It is a light matter to coin the word, and it trips pleasantly off the tongue. In recent years I have observed numerous attempts to deal with this topic practically, and to turn it into a concept that can be applied repeatedly in a well-defined way. And even though I may be treading on the toes of my colleagues, I must say that I think all these attempts have not delivered a sufficiently complete and practical solution. We have a high degree of complexity before us which we cannot capture with our existing language. Failure here is not inevitable, but simply the product of our linguistic limitation.

COS: Linguistic limitation?

Michael Jung: Let me give an example. We can of course "slice" the globalization phenomenon along various axes, such as capital markets, markets for production inputs, consumer markets. We can also cite the necessity of developing international management groups. But all we can do with these obvious and partial perspectives is place them side by side. We are not capable of creating a real synthesis from them because as the multiple perspectives increase complexity we are left without any insight into how to create a simplified whole out of so much complexity.

V. Creating the Invisible Workbench

COS: When we consider these boundaries we must ask what it is that causes us again and again to run up against them, and how we need to change our thinking in order to escape this pattern of repeated failure. What makes these boundaries so difficult to cross?

Michael Jung: If I had the answer to that, I would be very happy indeed!

I have a couple of hypotheses. The first concerns the way we think about ourselves and our actions. **I think that we remain – even after all this time – victims of an industrial perspective that places action and effort in the foreground.** According to this perspective, value is created when one makes something, produces something, touches something. It is also perhaps created when one decides something, but the decision is in essence nothing other than the establishment of an opportunity for more making.

But when we see that the emphasis in economic activity and value is becoming intangible, invisible, and in one form or another intellectual, then we are forced to conclude that there must also be a change in the nature of production processes. In this connection I find William Torbert's distinction between active and reflective modes of behavior very useful.

I believe that we experience these boundaries as permanent because we continue to see ourselves as "man the maker." This making may now and then get clogged up, so to speak, at decision points, but then we quickly make the decisions and set free the making for more furious activity. So thinking is only an inevitable stopping point on the way to further action.

But this can be questioned on logical grounds. **For if the output of our action belongs primarily to the cognitive and emotional spheres, and the production processes of the company are largely concerned with mental and dialogue processes – and no longer with the edging of wood or the screwing in of screws – then we must ask ourselves whether we have put enough effort into the creation of a second *workbench* – that is, the collection of tools that we need to shape these processes in a rational way. Here I would answer no.**

No matter where we look – ourselves, the groups with which we work, organizations, markets – we fail to recognize the essence of economic success, which can best be described as **the forming or "sculpting" of mental and emotional fields.** And we fail in this even though this essence is emerging ever more clearly over time. And so just as with an industrial perspective we would ponder the optimal layout of a factory, so must we gradually learn to define the optimal layout of the contents and patterns of interaction.

COS: So you said that we have not paid enough attention to creating the **second workbench** which is now of central importance – that is, to strengthening mental and emotional fields. Consider now your experience with groups. Have you had specific experiences that suggest, even in a fragmentary way, a way forward here?

Michael Jung: Well, I think we are rapidly approaching the limits of what I know. I have a few hypotheses here that are not particularly new or original.

I am thinking of a very successful company which funds a group of 100 very highly paid managers immediately below the CEO. This group focuses on structuring the cognitive and emotional sphere, and is free of the P&L responsibility that is so decisive in the Anglo-Saxon realm. They make it possible for the company to achieve a high degree of flexibility and skill in managing conflict, yet without sacrificing any efficiency in execution. We certainly have here a sort of slack that would not be tolerated under the pure industrial paradigm.

COS: Is there such a company?

Michael Jung: I am thinking of an actual example, but I prefer not to name it. I think that such pockets of slack are maintained in most companies. They may be designed explicitly, as in this example, or arise implicitly through the practice of managers. **This slack is simply the means for creating cognitive and emotional spheres for effective interaction and innovation.** This has been pointed out many times.

There is nothing new in this observation, and we have real examples as models. But I think we are still far from being able to say how this should work. **We recognize the phenomenon, we give it a place in our mental map, we believe we understand what is in principle happening. Yet I think we are nevertheless far from truly grasping it. To be sure we can observe what people are doing, but can we help them to do it significantly better**? We are currently experimenting to reach that stage, but we are not there now.

COS: So you have found the cognitive and emotional sphere then to be the real “workbench,” as you call it. How have your life’s work and your consulting practice evolved in the last ten years, particularly in the light of this central finding?

Michael Jung: I suppose I have become much more pessimistic in one dimension, but much more optimistic in another.

I have lost confidence in what I would call “classical problem-solving.” If I tackle a problem with a lot of analytical activity I will solve it in one respect, but in a largely predefined framework. I will not *overcome* the problem with this approach.

In order not only to solve a problem, but also so to speak to leave it behind, one needs to use an alternative approach. Such an approach typically requires one first to recognize a much higher degree of complexity in the problem, and second to find a solution in a way which does not correspond closely to the classical logical-analytic rules. I believe that C. S. Peirce’s adductive logic plays a central role when one is truly leaving the problem behind in this way. This means that one must rely heavily on one’s intuition and apply methods to spark surprising thought patterns. Dialogue with a third party, where one does not know the outcome in advance, is an example of this.

My work has changed drastically. I have sharply reduced the proportion that I would call linear problem-solving, and now spend much more time on the alternative approach.

COS: If you use this workbench idea as the starting point or focus of your client work, how does that change the clients themselves and the relationship you have with them?

Michael Jung: One steps a bit away from the classical role profile of a consultant who is traditionally seen as a highly specialized analytical resource and as a window on the outside world. The consultant is expected to be able to speak on the basis of a much broader range of experience. He has time to build up this experience, but the client manager does not. In addition, the consultant is expected to be very intelligent so that he does not miscalculate in solving complex problems. This may be close to a caricature, but if so, consultants themselves have done a lot to make this caricature as close to reality as possible.

I think that if you take a different approach you are simply more normal. Your profile is less extreme in a few categories, but on the other hand you have something in each category, just like any normal person. My experience has led me to conclude that the sharply defined traditional role of the consultant must become less pronounced in interaction with clients.

COS: How do you create value in this new world? What do you actually do in this kind of project?

Michael Jung: I try to make groups and their members – we are largely talking about groups and their members here – aware of the possibilities that are open to them when they consciously go about creating a common mental and social context. In other words, I make them aware of the fact that their production function does not consist of an endless cycle of deciding and acting. They must rather develop a new type of asset, one that has a dramatically high rate of return. This is a shared mental context of very high quality.

Now this is something that everyone already understands intuitively. Yet this context remains undeveloped in corporate practice for a number of reasons. Then I point out that there really is a production process for high-quality mental and social contexts.

And this production process is organized very similarly to any other. You prepare what is needed, then assemble something, turn it on or put it into operation, and keep it running. Now the group members are the production resources of this process, and the process itself is something that they have attempted to work with before. But a new level of quality for this process can be achieved if they consciously structure the process in an appropriate way.

My own role, if that is interesting, consists of activities that are quite familiar to practitioners. I support the discovery process of the group by interviewing individuals or by working with the group. In both cases **I direct the attention of the individuals to things which they are conditioned to scorn or undervalue**. Now the experience of these conversations and group interactions gradually leads them to the realization that it is not only useful but critically important to spend time on developing this asset of mental and social contexts. They need to spend more time on this, and devote more conscious energies, than they have in the past.

COS: So what you really do is to help the client become more aware, to set free what is already there.

VI. Two Types of Pathologies

Michael Jung: We described this in a recent paper as "providing resources for reflection and renewal." Making people aware of things that they are not or scarcely conscious of is certainly an essential part of what we do. But to become complete, this then must be sustained in an extended, continuous facilitation of interaction.

You need to go beyond this because each member of the group has his own ideas and imagination that he brings to the group, and these develop in the group setting. This leads to an increase in the productive diversity of the group that we spoke of earlier.

You are familiar with the two axes of our "performance space" – quality of *direction* and quality of *interaction* – and with the consulting role that supports it. By supporting interaction the consultant promotes the emergence of awareness, but at the same time he contributes knowledge of the world, abilities and ideas which originate in his business experience which is of course personal but also relevant to the new situation.

Now when we contemplate our episodes of moderating these group processes as a series of micro-interventions, a startling pattern emerges. We encounter what you might call "**interaction pathologies**" and "**content pathologies.**" But often the interaction pathologies cannot be treated effectively through working directly on interaction patterns, but only by providing new content. Similarly the content pathologies must be treated not with more content, but rather with different patterns of interaction. And that is why we think there is a major advantage in having a two-dimensional consulting approach to working with groups in companies.

VII. Sources of Energy

COS: What sources of personal energy do you draw upon, whether within your work or elsewhere?

Michael Jung: Well, I would like to start by mentioning something negative that drives me. I have a real fear that some patterns of leadership that for moral and aesthetic reasons I do not favor are proving to be very effective. **I do not want to cite specific companies, but we see some highly praised corporate models where the driver of action for managers and employees is a combination of material**

incentives and palpable fear. These corporate models prove to be highly competitive and successful, and that naturally leads to widespread imitation.

Now corporations have an enormous role to play in the socialization of adults, and significant indirect influence on the socialization of families and of whole societies. I am convinced **that we are now running the risk of purchasing economic success at the cost of a social architecture with diminished values.** This is a real fear that I have, and not least for my own children.

My impression is that the realms of politics, education, and the family do not provide a sufficiently strong fabric to resist this trend. The influence of economic forces and of a view of the world based entirely on an economic perspective is becoming pervasive in society, and I have no fondness for a practical philosophy that reduces man to the lower sphere of Maslow’s hierarchy. So much for the negative side of what drives me.

On the positive side, I think that there need not be a trade-off between personal happiness and meaning on the one hand and economic performance on the other. Quite the opposite, in fact.

This appears to me to be a very humane, humanistic, and I would say also moral, ethical, and aesthetic ideal. Admittedly this is still somewhat vague, but I think it would be quite rewarding to make it concrete and to realize it in a practical way. Since I have been occupied with these matters and this purpose, I have found my work to be more enjoyable.

COS: Well, let’s see now. You said that your starting point was the question whether an understanding of the world is really possible. And when you carried this question into management consulting you found that every practical problem is actually a configuration of basic questions. So that is more or less the background.

And then we talked about the various boundaries that are hindering our progress. In connection with research you mentioned boundaries related to the discipline, roles within it, our consciousness, and our language. In the area of practice you talked about pragmatic solipsism and other limitations in our capacity for dialogue.

We then continued with a discussion of what it is that keeps us from getting beyond these boundaries. You then said that we are victims of an industrial paradigm that places “making” in the foreground. The way past this boundary is through the development of a second, less tangible workbench. And you characterized this as the opening up of a new cognitive and emotional sphere. And finally we turned to the question how this can be made practical.

Now before we go any further, could you tie two things together for me? That is, what does the concept of a second workbench have to do with your rejection of the prevalent view that certain questions have no answers?

Michael Jung: My first long preoccupation was with philosophy, which I cannot clearly distinguish from literature. Both are concerned with truth and certainty, and with the possibilities of conveying truth and certainty. If you take truth to be a cardinal question for philosophy, you could cite a few comparable questions in economics or management where there is a corresponding consensus that no answers are possible. Examples could be “What is leadership?” or, following 20 years of effort to answer it, “What is knowledge management?” But perhaps in part because we are dealing with questions in organizational theory that are fundamentally simpler than the basic questions of philosophy, I am quite optimistic that there are answers.

VIII. Beyond Individualistic Notions of Leadership

Now it is clear that we need to reformulate our questions about leadership, knowledge and knowledge management in order to be able to articulate appropriate answers. We have been led astray by our tendency to think of leadership and knowledge as attributes of individuals. **The workbench theme can of course be similarly applied at the level of individuals, but it is ultimately about something that is above or between individuals**.

This leads us in an exciting direction. **I think that a better way to think about leadership and knowledge is to conceive of them as system functions – that is, as characteristics of a definite group structure. And this structure consists not only of the individuals themselves, but also of the mental and social contexts that they share.** To the degree that we sharpen up the group’s and the individuals’ sensibility and productivity in shaping these contexts we put them in a position to diagnose the state of leadership and knowledge as system functions, to identify improvement opportunities, and to carry out the improvements themselves.

Let’s consider the knowledge theme. If the participants in a group develop a shared understanding of a topic, they will find it much easier to view each relevant situation in a common way. This shared view of the situation in turn makes it easier to identify, exchange, and decide between differing individual perspectives on how to improve it. In other words, **knowledge is not an attribute of a single person, but a characteristic of the interactions in which individuals participate**.

The same principles apply to leadership. For example, we say that leadership is clarity over direction, readiness to take risks, a will to action, a certain courage, and the authority to decide what counts as true and what as false. If we thought of leadership in this way, it would become clear that leadership is not the product of a single person alone, but also of the relations between persons. If we conceived of leadership as a relational characteristic in this way, we would not talk only about the person who is leading, or not primarily about this person, but would also talk about the group and the internal leadership quality of the group. And this quality would include the contributions of individuals, their ability to manage consensus and dissent, their capacity for collective action, and the way the labor is divided up.[3]

I also find this view of leadership appealing because it enables us to get away from an overly stylized, heroic leadership model that increasingly compels people to go around as mere caricatures of their true selves.

IX. Organizations: What Are They?

COS: So you're really talking about a sort of "relational turn," a shift from thinking of knowledge and leadership as attributes of individuals to conceiving of it primarily as a system function of the relations between individuals.

Michael Jung: Now here we come upon a very interesting boundary. Now we might explain group phenomena "from the ground up," so to speak, and say that there is nothing other than individuals and their attributes and the relationship between individuals is ultimately only one such attribute. Or we might take a sort of "idealistic turn" and – at least in an "as if" mode – begin to speak of an intellectual sphere with a limited degree of independence from the individuals in the group.

So if a group of people is considering a problem and someone or something introduces a concept that no one in the group had thought of before, what has changed? Is it only the individuals in the group that have changed? Or is the group really like a molecular structure that has been complemented with a new atom, with the result that the group’s knowledge quality and leadership quality have leapt upward?

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[3] Translator's note: Perhaps both knowledge and leadership are system functions in this way, but it is much easier to make the case for knowledge. Perhaps our language defeats us here, for knowledge can readily be applied at the group level, but leadership, at least in ordinary usage, refers to what a leader does or has, and a leader, again in ordinary usage, is an individual who stands out from a group. Therefore to talk about leadership being a system function is not clear or even appealingly paradoxical. It simply sounds confused because we are fighting the normal meaning of the word. At best we might be halfway understood, so people will think we mean something like "rotating" leadership (which is only a small step in the right direction).

We need an "actorless'" verbal noun – something like "direction-setting" – which frees us of the implication that there is an individual who prevails over the proceedings.

This problem of an implied actor came up in the history of Buddhist thought. The Pudgalavadins (pudgala is Sanskrit for "person") denied the mainstream anatma (no-self) doctrine on the grounds that the Buddhist scriptures were filled with statements that implied the existence of a self. For example, the Burden Sutra says that you must cast off a series of burdens, and when you have cast off the last one, nirvana (extinction) is achieved. The Pudgalavadins responded by asking who it is that is casting off these burdens.

If I consider the latter to be, from the standpoint of the philosophy of pragmatism, a more productive method of explanation, how then should I think about the corporation? Must I not think of a corporation as a constellation not only of people, but also of material and in particular immaterial content? And why can’t I speak directly about this immaterial content itself as the means of explaining organizational performance?

Think of the quality movement that started about 20 years ago. Now of course people thought about quality long before it was reintroduced into our vocabulary with the extraordinarily broad and comprehensive form it has today. But back then people understood the concept very differently. Certain programs, actions, and organizational roles are only really conceivable in the light of the newer concept. So if we say that progress in an area like quality necessarily includes among other things progress in the thought world, then both for diagnosis and for intervention in our work with corporations we must conclude that it is completely sensible to speak about ideal entities.

COS: From this point of view, what do the corporations of today look like? How would you describe the intellectual spheres they have developed?

Michael Jung: I experience corporations – or rather the employees of corporations– above all as participants of a thought world which is manifested in certain typical thought routines. Yet the thought world lies *beyond* these routines.

So imagine that in a particular company a concept of the entrepreneur has been developed with strong associations of independence, self-determination, free choice of ends and means, and so on. Yet this same company is searching for synergies, which require that the entrepreneurs suddenly begin to think of themselves as members of groups and logically therefore also surrender a part of their autonomy. We can easily see why such a company would perhaps be very good at activities which fit the classical model of entrepreneurial success, and not so good at others which require intensive interaction, trust, a giving up of autonomy and of the freedom to make decisions, and so on.

Now is this something that resides in the heads of individuals? Well, yes and no. On the one hand it is obviously in their heads because they are participating in a thought world. But on the other hand it is sensible to speak of it as something which has developed over the course of the company’s history independently of single individuals.

How then does one change a thought world? Or how can one use such thought worlds as the lever for shaping organizations? Whenever I ponder such questions, or ask myself under what conditions individuals abandon some elements of their thought world and introduce others, I am struck by how this game plays itself out in interactions in groups, usually in groups where the individuals know each other. So many things that we have always considered attributes of individuals might better be thought of as attributes of groups.

COS: So you have distinguished between an individual entrepreneur who realizes himself autonomously, and a concept of the entrepreneur which exists in a sort of common space which lies above the level of the individual.

Michael Jung: Well, we should not consider what I just said as more than an example.

Nevertheless, in that example we can recognize at least two pathologies. One is a pronounced form of individualism that excludes the synthetic concept of a “group entrepreneur.” The other is a group entrepreneur concept that possibly impinges too much on individual action.

COS: You also distinguished between two levels in the thought world. It is manifest on one level, but actually exists on the other.

Michael Jung: I believe that the classical manifestation is action, which can be traced back to the thought world. Every manifestation of the thought world is in effect an interpretation of how to act made by some participant in the thought world.

COS: Okay.

Michael Jung: From actions we can draw conclusions about their causal factors, which of course include the individuals themselves but also the thought world in which they participate, and which influence their choice of action in predictable ways.

The participants themselves must be helped on their way to heightened awareness so that they recognize that they can actually shape this thought world, and see in the shaping of it not only a means to solve business problems but also a liberating act that gives them mastery of the concepts that are at their command when they seek to do something.

So we certainly travel along the tracks laid down by the concepts that are available to us. Think then what it would mean to recognize how we have been confined by these tracks, and to develop the capability to move off the tracks into new terrain! That would certainly lead to a fundamentally higher level of competence in knowledge and leadership for individuals and for groups. This is the boundary we should concern ourselves with most.

COS: So in a way it's really about moving down paths which first appear when you are in the middle of such a process.

Michael Jung: Yes. And one could also say that we must deconstruct a bit what we normally call creativity, and point out to the participants that the original act of creation actually lies in their highly personal construction of the world, and this construction in turn is strongly promoted through an understanding of how the perspectives of others can contribute to the development and correction of one's own search for knowledge.

So we are back again to dialogue, which is really a constructive activity and not only an exchange of opinions. As soon as you acknowledge this you are in a position to recognize dialogue as the primary – or at least a highly important – process for producing attitudes, perspectives, and knowledge in corporations. And that in turn makes it possible to promote dialogue and incorporate it in the institutional context more effectively than is generally the case today.

COS: Well, this notion of a thought world certainly provides a different point of view on the phenomenon of the corporation.

X. The Tacit Dimension of Client Relationships

Who do you consider to be your *real client* in this process? Is it still really the CEO or is it rather this common thought world that you have described and which transcends the individual person?

Michael Jung: Well, **this must sound odd, but I really think that my client is not only the person, but also this ideal entity – this "common thought world" – to which I feel obligations on grounds of both truthfulness and aesthetics.** How well formed, how close to reality, how productive is this thought world? I sometimes feel myself at least as obligated to this thought world as to any participant in it. The thought world is the *summum bonum* here, but I must of course qualify that by pointing out that the thought world is not some sort of "glass bead game" like the one in Hermann Hesse's novel. It is rather something that is directly useful to the individual in sharpening their sense of reality and improving their awareness and ability to choose among options.

COS: From a philosophical point of view, what sort of reality are we dealing with here? Is it a mechanism, a structure, a living system? *What is the nature of this reality that is your real client?*

Michael Jung: It just occurred to me that what you are asking might be considered a "non-question" in my philosophical tradition. I'm not sure that we will get any further with words.

In an interview you conducted a couple of years ago with Francisco Varela, he said that we really do not understand experience. I think that is quite relevant here. Without an understanding of experience I simply do not know what kind of Platonic form this thought world is.

COS: And what are the moments of experience that provide hints as to its nature?

Michael Jung: I think these moments are quite similar to those that one has when one stands in front of a picture that appears to be flawless or particularly interesting, or to the experiences I have – for this is for me an important way of experiencing reality – when I stand in front of a mountain lake and the sun is reflected in a certain way so that the water shimmers. I think it is probably above all experiences that we classically would label "aesthetic." But it is probably already becoming clear that words are failing me here.

I think also that when these experiences really turn out well they are not my experiences alone. These are rather experiences that now and then cause an entire group to enter a certain dreamlike state. These moments are almost magical. I could imagine that these are moments in which we perceive the barrier between our conscious and unconscious worlds as somewhat passable.

COS: Is this social or corporate reality that we are trying to talk about really just part of a "Sunday ethic"? That is, is it something that we can say beautiful things about after the work is done, but that has no real connection to daily experience?

Michael Jung: I hope that's just a negative rhetorical question!

COS: Do you consider this level of experience as relevant, or is it in comparison to day-to-day reality or rather something esoteric?

Michael Jung: I think **it is rather something that happens almost all the time. However, the way we habitually direct our attention causes it to pass us by unnoticed.**

In our society we do not use our flow of attention as a means to achieve anything. We are simply not attuned to perceiving the energy and information that is produced whenever we have a sudden leap in consciousness. I am here drawing upon Deepak Chopra's book *Ageless Body, Timeless Mind*.

I think that these moments are not really rare, but that, as I mentioned before, we lack a sort of sensorium to recognize them for what they are, even though they have a definite quality that should catch our attention. For it always seems to me at these moments – this is simply an association that I have – that time is standing still, or rather that we are lifted up out of the flow of time at a specific point. Henri Bergson, when he is discussing *durée*, mentions conditions that are not like being in a great mechanism which moves along second by second, but rather almost like having the freedom to choose how time and other processes will be shaped.

And it is as if with this leap of understanding there is also a leap in time. We free ourselves from a production process in which real progress only comes at the cost of much time, and simply make a leap. Now, is this really a leap in time? Or is it simply liberation from a certain idea of time?

COS: Can you describe these two time qualities more closely? How can they be distinguished?

Michael Jung: I think something is coming to light here that we generally overlook. **Again a habit of failing to pay attention is at work.**

In an industrial context, in which action overwhelmingly deals with the handling of concrete materials, there is a natural limit to how much this handling can be sped up. Steel has a specific hardness and can only be handled so fast. When one person works at chopping up a tree trunk, it takes a certain amount of time. We have therefore become accustomed to thinking of progress as time-constrained.

But there need not be any narrow natural limits on what it is possible for us to think of within a given unit of time. And this is something that is confirmed by our observation of productivity differences among people who do intellectual work. Sometimes the work of a team over a month can be matched easily by an individual in 20 minutes. Is this individual 500 times more productive than the team? Yes. Does that mean he or she is 500 times as intelligent? Certainly not.

While certain fields – particularly of course those of physical production – have been strongly advanced with technology, we are probably at the very beginning of the design or development of a technology which will give us comparable access to thought processes.

COS: And in this connection we can say that one of the few issues over which there is consensus is that awareness and attention are essential quantities which can influence thought processes and thought quality.

Michael Jung: I think it is important to recognize that just as in every other process there must be some sort of production tools here. Just as one can accelerate a production process in the physical world through assets – in this case machinery – so we would probably infer that a production program in the intellectual realm can be influenced correspondingly through mental assets. But we do not know how to build up these mental assets. We are feeling our way forward in this area.

COS: Michael, thank you for the conversation.

XI. Reflection

The essence of high-performance systems and economic success is, according to Jung, deeply related to the “forming and sculpting of mental and emotional fields.” The blind spot of today’s practical work on knowledge and leadership concerns the creation of reliable methods and tools that would empower people to shape this invisible dimension of high-performance systems more consciously and effectively. In order to do so Jung proposes the creation of “a second workbench” – that is, a set of methods and tools to shape this invisible process. In this perspective, knowledge is not an attribute of a single person, but a characteristic of interactions in which individuals participate. The corporation, accordingly, is a mental-emotional field in which its members participate. Says Jung: “This must sound odd, but I really think that my client is not only the person, but also this ideal entity – this ‘common thought world’ – to which I feel obligations on grounds of both truthfulness and aesthetics.” He says that when we succeed in entering this deeper aspect of organizational experience we realize that these experiences are not simply individual experiences: “These are rather experiences that now and then cause an entire group to enter a certain dreamlike state. These moments are almost magical.… [They are the] moments in which we perceive the barrier between our conscious and unconscious worlds as somewhat passable.”

XII. Bio