

Criticisms of Transpersonal Psychology and Beyond—The Future of Transpersonal Psychology

A Science and Culture of Consciousness

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After nearly half a decade of transpersonal psychology, to be precise 43 years after the foundation of the *Journal of Transpersonal Psychology* that gave the nascent movement an academic and scholarly appearance, it seems about time to pause and ask: What has the movement of transpersonal psychology really achieved? What is the impact, if any, it has made on the academic purveyance of psychology, its teaching and research, its application in clinical work, counseling, and education? What are the structural changes or improvements, if any? One can easily see that many of these questions seem to be rhetorical and have to be answered rather disappointingly in the negative. Although transpersonal psychology has tried to install itself as a new force with the remit to reform academic psychology, so far it has not really succeeded. Apart from three or so dedicated private graduate schools and training centers in the USA and one of originally two postgraduate courses in the UK, to my knowledge there is no structural impact that can be perceived. Traditional psychology has proceeded on its trajectory, and chairs for transpersonal psychology, funded by public funds of large schools or endowed chairs that radiate out are largely missing. Although new disciplines such as educational or organizational psychology have now succeeded in establishing themselves through new chairs and departments, the same is not true for transpersonal psychology. Why is that so? Curricula of psychology courses have changed over the past decades. New courses have been added, new topics and subjects have been taken in, honoring their importance. Transpersonal psychology, as a rule, and exceptions confirm this rule, is not one of them. New scientific disciplines within psychology have succeeded to make themselves visible, through scholarly outlets, conferences, and meetings, establishing their intellectual footprint. Transpersonal

psychology has not been nearly as successful as other disciplines within psychology. Although transpersonal psychology conferences exist, you will rarely find reports and headlines about findings presented there. What is wrong here?

Although transpersonal psychology and—to frame it in a broader context—spiritual approaches and techniques within the clinical counseling fields are popular among practitioners and seem to receive a warm welcome from many, this has not been at all reflected in academic representation. Let us take two examples, both from Germany. Thirteen years ago the German language journal, *Transpersonal Psychology and Psychotherapy* (now the *Journal for Consciousness Science*) was founded and has had a comparatively good circulation of roughly 1500 subscriptions—more than a lot of the professional journals in, say, psychosomatics or clinical psychology. This testifies to the interest of clinicians. But the university courses representing at least some aspect of transpersonal psychology are extremely rare. Currently in Germany there are only three university teachers with the necessary credentials to supervise PhD theses, who have some track record in publishing in this field, and enough interest to take on new students.

We recently did a representative survey among 909 German psychotherapists who are working under the statutory reimbursement system (Hofmann & Walach, 2011). Of their patients, 22% mentioned some sort of spiritual problem or topic and 66% of the therapists said that university or postgraduate training should give more attention to these issues. Two thirds of our respondents said that they have had a spiritual experience themselves, at least once, and 36% said they have had such experiences very often or repeatedly. This clearly shows that there is interest in spiritual issues on the practical level, because the topics are germane for patients and therapists alike, but this reality of life has not found its way into academic structures of teaching and research. Has transpersonal psychology succeeded in becoming an scholarly voice for all these practitioners?

Seen from a distance and with sober eyes, one has to admit that the success of transpersonal psychology as a discipline is indeed meager, to put it benevolently. A critic of the field would surely say: “Transpersonal psychology has failed as an academic-scientific discipline. It has not proven its worth or and hence should just vanish.” If some future for the academic study of transpersonal and spiritual phenomena is to be established, opening an inroad for spirituality into academic circles and allowing for the broadening of psychology as a field, it is necessary to assess critically the history of the transpersonal enterprise, its shortcomings and failures, listen to criticisms leveled against it, and understand the largely unspoken critique of mainstream science in order to determine the potential chance for transpersonal psychology.

In this chapter I wish to critique transpersonal psychology constructively. I will go briefly through the history of psychology as a discipline and through the history and sources of transpersonal psychology as a subdomain in order to understand the frictions and possible points of departure. I will then point out some criticisms and unsolved problems and develop a future perspective. My recommendation will be to reinvent the transpersonal enterprise along the lines originally intended by the founding fathers of psychology, William James and Franz Brentano: a psychology, a science—and culture—of consciousness, in order to get rid of some of the problems besetting transpersonal psychology. I do this from the vantage point of an academic teacher

and researcher with a clinical training and experience in a transpersonal discipline, psychosynthesis, a long-standing spiritual practice in Zen meditation, the experience of being one of the founding members of the German Association of Transpersonal Psychology and Psychotherapy, and a former professor and course leader in one of the universities in the UK that is offering a postgraduate degree in transpersonal psychology and consciousness studies. I do this also with a firm commitment to the scientific enterprise, because I passionately believe that it is the only true international forum and joint venture of humankind that is comparatively successful and peaceful. At the same time I also believe that if science is to remain successful and helpful in the resolution of the problems on our agenda today then it will have to broaden its scope and paradigmatic stance by taking seriously some of the issues that led to the rise of transpersonal psychology.

A Historical Approach

In order to understand a current situation, historical analysis is normally useful. So it is appropriate to revisit briefly the history of psychology in general and that of transpersonal psychology in particular. At variance with most textbooks of psychology, I date the beginning of psychology as a scientific discipline to 1866. This is the year when the young professor of philosophy, the theologian and priest Franz Brentano (1838-1917), defended his position at the University of Würzburg in Germany. One of the famous theses was worded: "The true method of philosophy can only be the method of natural science" (Wehrle, 1989, p. 45). By that Brentano meant that philosophy had to become empirical and experimental. In 1871 he was to take up the philosophy chair at the University of Vienna. He made it clear that his interpretation of an empirical philosophy would be the new science and study of psychology. He also proposed that this method would have to proceed through thorough and careful introspection so as to understand the laws of the psyche. At the same time the vagaries of his private life were difficult. He was the priest responsible for drafting in 1869 the paper of the German bishops' council against Papal Infallibility, which was proclaimed in 1870. The German bishops' opposition against this move remained unheard. This led to Brentano's leaving the church. On top of this, he fell in love with a Jewish heiress of a big banking business in Vienna and he wanted to marry her. An apostatic priest, marrying a Jewess in Catholic Vienna was a terrible scandal. Brentano was forced to resign, emigrate to Saxonia, marry there, come back and attempt to reclaim his chair. He was unable to do so, because the Austrian emperor refused to countersign the university's appointment documents. So Brentano was unable to resume his academic position, and his work remained undone. He was never able to write his important work, and what remained of his influence was indirect. Freud heard his lectures and put Brentano's teachings into the practice of inner hermeneutics so as to understand psychological content and derive laws from it (Merlan, 1945, 1949). Edmund Husserl was inspired by Brentano to develop his phenomenology (Husserl, 1919). Similarly, Carl Stumpf (1919) developed Gestalt psychology (Stumpf, 1919), and even Rudolf Steiner (1921), the founder of anthroposophy, studied with him (Steiner, 1921). Brentano himself was a deeply spiritual person, dedicated to daily contemplation, as

he called it in the Catholic tradition, and was always looking for a way to reconcile the spiritual and the academic world, without a tangible success that he might have been able to pass on (Stumpf, 1919; Tiefensee, 1998).

The date often quoted as the year psychology was born is 1879 (Lück, 2002). This is the year when Wilhelm Wundt (1832-1920) opened his psychology laboratory at the University of Leipzig. It soon became the strange attractor for psychologists from around the world: William James and Stanley Hall were only some of those who visited (Brent, 1993). What is not well known is a very important episode in Wundt's life that has an important bearing on the topic (Kohls & Benedikter, 2010). Roughly at that time, in 1877, the professor of physics in Leipzig, Johann Karl Zöllner, became interested in studying mediumistic performances, because he thought they would prove his theory of a fourth, spiritual dimension that could be incorporated into physics. The American medium Henry Slade was traveling through Europe and performing interesting feats: tables flew around, chairs hovered in the air, it was impossible to know information was given, and so forth. Hermann Ulrici, a professor of logic in Halle, wrote about those sessions, concluding that spiritism was of utmost scientific importance. To bolster his claim, he mentioned various renowned professors, among them Wilhelm Wundt. Wundt became furious (Wundt, 1879). He quickly came to understand that associating the nascent discipline of psychology with potentially fraudulent, but surely scientifically questionable performances of mediums was very dangerous, because it might threaten the new discipline's ability to be established within the academic system. In the attempt to join the established sciences, contact with and proximity to unscientific parapsychological phenomena had to be avoided at all costs. So Wundt included a clear warning about and prohibition against, such studies in his book on hypnosis and in the foreword of the second edition of his psychology textbook and all further works (Kohls & Benedikter, 2010).

Sigmund Freud (1856-1939) is often misquoted as someone who had no interest in the occult and transpersonal phenomena (Simmonds, 2006). Although this is surely true on the outside, he was in fact quite interested in precognitive dreams, even in the immediate perception of his clients' states of mind in a phenomenon he called transference, which he recognized as having some similarity to clairvoyance (Freud, 1922, 1925). Freud's description of an open, receptive attentive state without content is very much akin to the phenomenological consciousness that Husserl would later advocate. Both Husserl and Freud were stimulated by Brentano's teaching. But Freud was also fighting for scientific recognition, and he knew that being associated with quackery and esotericism would be the death of psychoanalysis. So he made a scientific vow: no dealings with spiritual issues, please, in order to not endanger the still fragile flower of psychoanalysis. And psychoanalysis, true to its master's heritage, steered clear from the muddy waters of religion and transpersonal experiences.

Carl Gustav Jung (1875-1961) cannot be understood without his own spiritual experiences (Shamdasani, 1994, 1995, 1998a, 1998b, 2003, 2005). Already in 1913 he had his famous visions of floods of blood over Europe which inspired him to develop the process of active imagination in which he entered these visions, explored them, and came out again and described them. The results of these explorations were described and painted by him in *The Red Book*, which was edited only recently (Jung, 2009). Only later would Jung come to understand that his visions had been very

powerful precognitive intuitions of what would happen a few years later during the Great War (1914-1919). He actually stated that he was happy when the war broke out, because this proved his visions correct and helped him to believe that he was not psychotic, but clairvoyant (Jung, 1967). All his later developments—the concept of a collective unconscious, of dynamic archetypes that structure individual psychic life, and the striving of developmental lines towards an emerging whole—can be seen as an unfolding of his original visions. It would be difficult to find any component in Jung’s psychology that is not spiritual. But apart from creating an influential school of psychotherapy, what has Jungian psychology achieved? The academic mainstream has largely ignored it.

William James (1842-1910) is renowned as the founder of American psychology (James, 1981, 1984, 1985). His stance of radical empiricism is akin to Brentano’s “scientific method” which he prescribed for psychology. His pragmatic, undogmatic approach, that was not predicated on any one of the prominent philosophical systems of his time, was flexible enough to accommodate fields as different as the study of religious experiences, clinical phenomena, and the stream of consciousness. In fact, one of the best and, in my view, still valid definitions of psychology stems from William James (1984) quoting George Trumbull Ladd, professor of philosophy at Yale: “The definition of Psychology may be best given in the words of Professor Ladd, as the description and explanation of states of consciousness as such” (p. 9).

Brentano, Wundt, James, Freud, and Jung—the five most important founding figures of psychology—were all open to transpersonal experiences, at least initially. Wundt and Freud later turned away and proclaimed a ban on the study of such phenomena. Jung was openly supportive of spiritual topics. Brentano was implicitly supportive, but failed for personal reasons to make his impact. William James was soon to be superseded by the behaviorist movement.

In Vienna the work that had been begun by Brentano was continued in philosophy by Ernst Mach, who succeeded Brentano in the philosophy chair, and Mach’s colleagues Neurath, Schlick, and Carnap, who later formed the Vienna Circle, delineating the neopositivist movement that became so influential (Smith, 1994). Apart from some quite innovative ideas—to stick to sentences that were clear, logically analyzable and empirically supportable, to make science useful to humankind, to drop anything that was not really open to scrutiny and consensus—the neopositivists spoke out a clear-cut ban against what they saw as “metaphysics.” By that term they meant a type of philosophy that was indulging in speculations, based on presuppositions that were outside empirical evidence. They banned religion and spiritual topics as unscientific and associated with an old type of thinking.

Positivists thought that old school philosophy was part of the past, and all studies of spirituality and religion with it. Such topics simply did not belong in the realm of science. Raimund Popper, although also trained and educated in Vienna, broke with the neopositivists and inaugurated his own model, critical rationalism, advocating empirical disproving of hypotheses. But in one thing he is in accord with his philosophical rivals; metaphysics was a no-go area, simply because there are no sentences derivable from metaphysics or religion that can be empirically invalidated—actually, to be a bit more accurate: metaphysics might be a good source of ideas that can later be tested empirically, Popper thought, but metaphysics itself is unscientific, because not testable.

In England, Bertrand Russell had formulated a philosophy that had some parallels with the neopositivist movement. At roughly the same time in the USA the behaviorist movement started to flourish. The common thread running through all these movements is the reliance on what can be directly observed, simple analysis of complex phenomena, denial of any “underlying” or “deep” structure to reality, and a refusal to take anything beyond, “higher,” or “transcendent” into the purview of the scientific enterprise.

I ask forgiveness of specialists of the history of ideas for this rough-hewn picture of what is a very complex history reduced to a few pages. I do this to make understandable the historical macrotrend against which transpersonal psychology was emerging and has to confront. This macrotrend can be reduced to the following tenets:

- 1 Embracing the scientific-experimental method as the best way to knowledge.
- 2 Using the analysis of outer relations to understand complex inner phenomena, i.e., analysis of forces as material interactions.
- 3 Sticking to an observation from the outside, a third-person-singular view, as the best and only perspective that can generate intersubjectively consensual knowledge.
- 4 Avoiding reference to entities that cannot be seen, analyzed, or otherwise empirically assessed.
- 5 Avoiding reference to occult, esoteric, and religious concepts and teachings, as they are perceived to be contrary and irreconcilable with science.

If one looks at this historical sketch it is possible to formulate one grand criticism of transpersonal psychology, and if I am not mistaken there is not one writer in the field to which this would not apply.

No one has really taken this historical heritage and legacy seriously. Transpersonal psychology has not really understood the deep, deep cleavage that has to be bridged between scientific approaches in psychology—itsself still a very young discipline in the making—and traditional or modern concepts of spirituality, spiritual experience, let alone a viable concept of the transcendent. Instead of historically understanding the nascent field of psychology, transpersonalists chided psychology for being too positivistic, scientific, and reductionist and not taking into consideration important human experiences. Although this is surely true, any criticism can and will only be heard after the person who wishes to criticize has arrived at a thorough understanding of what it is he or she is actually evaluating. No one seems to have really tried to achieve such a historical understanding (my emphasis here is on *historical*; for without a historical understanding, any systematic understanding is only half-baked).

This is my first prediction: Unless the field is able to live up to this legacy and offer ways by which spiritual and transpersonal experiences and topics can be integrated and researched, and at the same time stay true to the historical heritage of psychology as a discipline, it will not find a listening ear.

I believe the first truly deep and paradigmatic problem is the following: By choosing the trajectory it has, psychology has formed a certain type of world model for itself. Pepper (1942) called such implicit, tacit presuppositions world hypotheses. Collingwood (1940/1998) called them absolute presuppositions. They are *presuppositions*, because the system of science does not work without them. They are *absolute* because

they are pervasive and are basic for all branches. More importantly, they are implicit and without open and rational debate or discourse. They form a coherent system and inform scientific disciplines, but the reflection upon those presuppositions is not part of the discipline itself. More importantly, such presuppositions, Collingwood stated, are actually not rationally debated and adopted. Rather, they stem from the cultural backdrop of a particular time. In the case of psychology, they stem from the movements and cultural preconditions I have tried to sketch. That is also the difficulty: It makes these presuppositions comparatively immune against attacks and criticisms, unless those attacks and criticisms also supply a better framework for the implicit or absolute presuppositions. Thomas Kuhn, in the wake of Collingwood and using his ideas, coined the term “paradigm” for such a set of preconditions, rules, and assumptions that form a discipline (Kuhn, 1955).

If a dispute arises *within* a paradigm about some issues, then there is a set methodology that is provided by the paradigm to resolve the conflict. This recipe does not work for disputes that are inter-paradigmatic, in which two sets of implicit presuppositions fight for priority. Transpersonal psychology belongs in both camps. A large part of the field, and I read some of the founding fathers’ assertion as such, has wanted to simply be part of the huge game of science, just adding the odd rule, as it were, leaving the game as it is. But there is also a strong group of people who seem to be “anti-scientific,” or against “reductionism,” or against the way science is done, and would like some other approach. Implicitly what they do is challenge the paradigmatic assumptions of mainstream science and psychology, but without being really clear about what they are doing, it seems. This is surely always the case when someone says that transpersonal experiences of a transcendent reality have something to do with reality as such, to give an example. This is not simply a matter of “Is it true or not?” because the methods supplied by the current paradigm to make such decisions about truth or falsehood, the experimental method for instance, do not apply to cases like this.

Hence, at least part of the transpersonal enterprise is in fact an implicit or explicit *challenge to the entire history and set of methodologies by which science and scientific psychology is done*. The point is: you do not challenge a 800-pound gorilla with a thin stick. He either laughs at you or simply breaks your stick. If you want to challenge the whole history, tradition, and academic self-understanding of modern day psychology, you had better beef up your arsenal and know what you are doing. Rarely do transpersonal psychologists seem to understand what they are doing. In order to challenge the mainstream view what needs to happen is a thorough understanding of the presuppositions that the mainstream operates on, a profound critiquing of these presuppositions, and the provision of very, very good data indeed that could actually give adherents to the mainstream view enough reason to think twice about what *they* are doing.

None of this has happened. The critique of the mainstream from transpersonal quarters has been mild and not very profound. The data that have been offered as a reason to embrace a transpersonal rather than a materialistic-reductionist paradigm have been anecdotal at best, and the alternative philosophical framework accompanying transpersonal approaches has often been muddled. Thus, the critical impact of transpersonal psychology on the paradigmatic foundations of mainstream science has been “interesting” at best—in a British sense—which means, nothing to be bothered by.

What about the empirical base transpersonal psychologists have contributed using the methods of mainstream psychology to impact the discourse within the discipline, without challenging its foundations? Can you think of a set of experimental, empirical data, preferentially replicable, published in one of the major outlets of the field that has impacted the way psychologists think and work? If one is honest, there is not much to be gleaned from more than 40 years of activity. To be sure, parapsychologists have produced a wealth of anomalistic data, testifying that sometimes precognition can occur, sometimes telekinesis, sometimes remote viewing (Walach & Schmidt, 2005). But there is no theoretical consensus about how this could happen, let alone a really replicable set of data that can also convince critics (Alcock, 2003). The only coherent field is the field of meditation research, which has recently seen an upsurge (Ott, Hölzel, & Vaitl, 2011). The clinical implications of the manualized system of Mindfulness Based Stress Reduction have produced a host of publications that has led to these methods being widely offered (Grossman, Schmidt, Niemann, & Walach, 2004). Mindfulness Based Cognitive Therapy for depression relapse prevention (Williams, Teasdale, Segal, & Kabat-Zinn, 2007) has even made it into the British National Health Service. But this is hardly an achievement of transpersonalists. However, it is the only really perceptible impact that at least some spiritually inspired activity and research has made. Grofian Holotropic Breathwork has been around roughly for about the same length of time (Grof, 1988, 2008). Although widely advocated with a colorful portfolio of benefits and transformative power, with many people going through trainings, one can observe a cruel law coming into play: unless you follow the rules of the game of science, use its methods to prove your worth, you will not become visible. The scientific studies of Holotropic Breathwork can be counted on one hand, at least those published in the peer-reviewed literature (Holmes, Morris, Clance, & Putney, 1996; Spivak, Kropotov, Spival, & Sevostyanov, 1994). None of these is a serious trial showing that Holotropic Breathwork is clinically superior to not doing anything, listening to loud music only, or lying together with friends for days on end and telling stories. One may be of the opinion that the experiences that can be had during such work are not amenable to scientific investigation, and perhaps this is true. But the clinical effects, if there are any, would be. Demonstrating those would be quite beneficial for the acceptability of the concept as a whole. It is this unwillingness to play the game of science—even when it would be easy to play without giving up anything of substance—that is one of the greatest obstacles for integration and change.

Thus, so far, transpersonal psychology has failed in a double sense: it has failed to really challenge the implicit foundations, the absolute presuppositions or paradigmatic assumptions of mainstream science and thus has not really proven its point; and it has also failed to provide solid empirical evidence that transpersonal experiences, transpersonal approaches, or transpersonal methods are in any way more worthwhile than traditional ones. The emphasis here is on “solid.” There are surely a lot of data and studies around. But these are mostly pilot studies, are small, solitary, and not published in widely read journals. They surely do not disturb the sleep of the righteous.

In order to understand why the newly inaugurated transpersonal psychology has not convinced others that its approach is truly innovative and is helping to transform people

to access their higher potential, it is important to now turn to what has been termed the spiritual positivism of transpersonal psychology, and also to the epistemological questions involved.

Spiritual Positivism of Transpersonal Psychology and the Problem of Epistemology

Some earlier concepts of transpersonal psychology assumed that there is a spiritual realm, transcendent but accessible through inner experience and spiritual practice or meditative discipline (Fontana, 2003; Soudková, 2002; Walsh, 1999; Welwood, 2002). Implicitly most seem to have been modeled along the lines of Buddhist injunctions: you go and sit down on your meditation cushion, recite the proper sutras, do your devotion, stick to the practice, and you will see for yourself. So it seemed clear. Similar to science, there is this prescription for what to do and out will come an experience or an insight about the nature of reality. Some earlier texts of Wilber (1997, 1998) and Walsh (1999) and others have suggested such a view. This has been dubbed spiritual positivism by Ferrer (1998, 2000, 2002). Thereby he means a fallacy that is similar to the fallacy of classical positivism: it is the assumption that there is a reality “out there,” which is completely independent of the observer and indifferent to the instruments that are used to observe it. It was a painful process for science to understand that reality can only be accessed from certain perspectives, that reality gives itself up only from certain perspectives, and that a consensus about what this reality truly is, is quite difficult to reach. This is even more so for any transcendent and spiritual reality. To state that transcendent and spiritual realities are the same for, and accessible to, everybody is at best extremely naïve and probably simply wrong. Why is this so?

The Problem of Objectivism

Within the meta-reflection of scientific theory, it is meanwhile pretty clear that the innocent objective reality concept that can simply be observed is a dangerous simplification. How this reality appears to observers is dependent on the instruments used, the theoretical perspective employed, and the purpose under which observation is made. To someone looking at the night sky there are myriads of stars, but only if he or she is not observing from an area where light pollution is fogging visibility. To someone using a strong telescope this night sky looks quite different. To someone using radio or X-ray telescopes it looks different again. Someone without a theory will not even be able to use these instruments to any benefit at all and more than likely will not see much. The same is true for nearly all “realities.” Bacteria, it is thought, cause some diseases and hence at least some of them seem clearly to be pathogens. Yet as humans, our skin, our gut, our orifices are home to myriads of them. In one cubic centimeter of our feces we have billions of bacteria. From the point of view of bacteria we are a rich soil to germ upon just as the ‘real’ soil is, for us, a substrate on which to grow crops. Only if some of our finely tuned immune processes become deranged will we suffer from the bacteria that we normally host. Why is something

that is not even noticeable to us under normal circumstances suddenly a pathogen? It surely is the same “thing,” is it not? Well, yes, and no. It carries all the same descriptors one can use to characterize it from the outside—genetic coding, surface receptors and antigenetic potential. But *in the context* of one reality, for instance a healthy organism, it is something else than *in another context* of say, an immune-compromised organism. Here it suddenly *becomes* something that it is not under other circumstances. So whether something is or is not, and what it is, depends on the context. It is not only the Buddhist philosophical tradition that has pointed to the doctrine of codependent arising or becoming. This is also something that has been prevalent in the West every now and then, one of the most prominent voices on the topic being the philosopher Leibniz.

Over the past 50 years, a complex debate has led to a refutation of the simple positivism that accepts a static reality out there that “only” has to be observed, described, and mapped. Philosophers of science have come to accept that every observation is “theory laden,” to use Hanson’s term (Suppe, 1977). Popper’s criticism of positivism came exactly through the insight that one cannot observe even the simplest thing without a background theory. If one had no theory, one would have no clue what to look for, how to organize all the perceptions in the perceptual field into meaningful wholes, or how to interpret their relationships. Meaning is distilled out of what is perceived, because it is first imbued with meaning. As humans, we construct the reality we think is out there to a large degree. Modern neuroscience has brought up an interesting new term, the brain’s dark energy (Raichle, 2006). By that is meant the fact that about 95% of the activities of the brain seem to concern traffic between neurons, and only 2% to 5% is traffic from the periphery—that is, sense organs—to the brain. To put it simply, input is the smallest amount of activity the brain is dealing with. Its main task seems to be to generate a representational image of what to expect from the world. Sensory input seems to be used to scan this representation for necessary corrections. That is to say, we do not perceive the world as it is, instead we construct the world as we expect it to behave and then we correct this expectation to a stronger or lesser degree depending on how we deal with incoming information.

What is true for individuals is also true for science as a joint human enterprise. A coherent picture of the world is constructed according to the scientific theories available. Empirical information is either used to elaborate this picture, or, if the information is too much at odds with our expectation, correct it. If too much information has amassed that cannot be reconciled with the current world view, some start to construct a new image of the world. If they are successful it will be possible to use the new model. This would then amount to a paradigm shift.

Now, if this is true for our everyday reconstruction of the world, and if this is true for scientific construction of the material world, what does this mean for a spiritual science?

Inner Experience and the Problem of Epistemology

Surely, any transpersonal “knowledge” would have to refer to some inner state or perception as its source and to something that cannot be directly perceived as a referent, “the Transcendent,” “the Whole,” “the Spiritual,” “the Tao,” “the

Dharma,” whatever the names are that are then used. If one can analyze what happens here then it is indeed possible to construct a process analogous to perception. That was exactly how Brentano and James had seen it: inner perception of conscious experience. But what is it that is perceived? Can one simply apply the positivist formula that “whatever is perceived is there?” How does one go about the fact that some, in their transpersonal musings, perceive “spirits,” “fairies,” or “demons,” some say they perceive “God,” some say it is some divine intuitions, some call it emptiness, others say it is not really emptiness but something else, and so on? You can see the problem here. It is analogous to perception of the outside world, only even more complicated. In the outside world humans share a comparatively stable consensual domain where, most of the time, it is possible to agree upon such simple facts as, “the door is closed, you need to open it, if you want to go through it.” In more complicated instances there is a scientific method to use to achieve consensus, a method that has had more than 500 years to mature and to develop.

However, in the inner realm of psychological inner experience there is no comparable thing. The referent of this experience is invisible by definition, only “experientially” accessible, if at all, and the access to this reality is surely not a simple one that normally does not occur outside some cultural consensus. So, when Buddhists meditate, they are likely to experience “dharma” or “emptiness,” or if they are from a certain Zen lineage, “true self.” When Carmelite nuns meditate and have inner experiences they normally experience Christ, or Mary, or some other religiously framed reality out of their own tradition. It may be possible to parallel such experiences which, for instance, Saint Theresa of Avila, a Carmelite, has put down in her *Inner Castle*, with those described in the *Abidhamma*. But does that mean that Theresa has actually had experiences of the *Abidhamma*, or does that mean that all the Buddhas and monks having had those experiences have in fact experienced what Theresa called the Inner Christ? There is no criterion to say which one is better, or truer, than the other. It has been observed frequently that transpersonal psychology has had some Eastern bias (Friedman, 2002, 2005, 2009, 2010). It is quite obvious that there is no criterion that could identify what the referent of the experience actually is, and how it is to be described and named and talked about, if at all.

Put differently, inner experience is no innocent and simple access route to an unambiguous reality. On the contrary, inner experience is highly ambiguous, opaque, and dependent on assumptions. One can, of course, claim that there is such a thing as pre-conceptual experience where concepts do not enter. Some have called this, following Gebser’s philosophy, “a-categorical” types of knowing (Atmanspacher & Fach, 2005; Hinterberger, 2011). While this is certainly true, it is also true that in order to enter into a discourse about this reality and its nature it is necessary to use categories and language, and these are dependent on culture, history, and language. So the spiritual experience of a religious seeker of the time around 20 CE in Palestine was likely influenced by the Jewish background of the culture, the expectations, the political situation, and so forth (Douglas-Klotz, 1999, 2002; Katz, 1983) and cannot easily be compared with the Indian Brahmanic culture of around 700 BCE, when the historical Gautama Buddha likely had his experience in Northern India. Also, the spiritual experience of the historical Jesus, a Jewish Rabbi, was likely different from the experience

of Theresa of Avila, who was a Christian nun living within a nunnery in a thoroughly Christian culture in the Spain of the 16th century. A dissatisfied Christian going to a Zen Buddhist retreat but with all his or her Western roots and culture implanted not only in the mind but likely also in genes, will have a still different experience, if any.

That is not to say that there is no referent to such experiences. There may be such a thing as an a-categorical core spiritual experience, which, however, needs reference to a cultural framework to be understood and expressed (Forman, 1998, 1999). But even if there is, there is no simple and easy access, and, most importantly, it is utterly naïve to think that just to “describe” the experience will be a description without reference to the “reality” that has been experienced.

The scientific injunction “take x, and do y, and you will find z” is complicated even for skilled scientists. A host of failed replications and debates are testimony to this, and only through huge struggles and debates does science succeed to create a consensual understanding of the shared material world (Schmidt, 2009). The spiritual injunction “sit down, do y, and you will experience z” is even more complicated. This is so because the spiritual reality is more complicated to access, it seems, and because the discourse about the “true” nature of this reality is historically, culturally, and geographically much more fragmented than the scientific one. More importantly, there is not the critical methodology that science has had 500 years to establish. There is only one proposition that is fairly sure here: that a naïve spiritual positivism is likely the worst theoretical background one can have. Yet this is exactly the background transpersonal psychology has brought to the topic for the first four decades of its existence. It seems that only a minority of people in the field have understood, let alone come to grips with the challenge here.

But there is another, even deeper challenge that needs to be looked in the eye here. This is the ontological challenge of what consciousness actually is, vis-à-vis, a mainstream science that is thoroughly materialistic. The problem is the following: if the ultimate reality in the world is “only” matter, and consciousness is derived from the intricate ordering of matter, then consciousness is a secondary phenomenon. How could it then have any direct access to reality? How can an inner experience then be anything else than just an idling game of a system on standby? What conceptual, philosophical, and epistemological reasons can there be to assume that a spiritual experience is really an experience of reality and not of some whimsical, ephemeral mental farting? Transpersonal psychology has simply assumed that inner experiences have some epistemological validity, without any understanding of the extremely difficult ontological ground upon which it is marching. I am not suggesting that the mainstream of science is right. But I am suggesting that it is unprofessional not to take into account the good arguments that a majority of scientists have, and produce a thorough refutation of this mainstream stance first, before indulging in one’s own ontology and epistemology. In other words, one cannot talk about epistemology and how it is possible to glean knowledge from inner experience, without discussing ontology and the question of under which circumstances can this be possible in the first place. As far as I can see only a few people have tackled this issue, and very few with the requisite understanding of the problems.

Let me therefore sketch the problem of ontology a bit more clearly, then provide some arguments and potential solutions, and then discuss how transpersonal psychology has not met, but perhaps could meet, these challenges in the future.

The Problem of Ontology

The scientific worldview, shorthand for the set of assumptions underlying the way natural science operates and has been operating since Newton, is predicated on the assumption that matter is the more important, perhaps the only “real,” stuff in the universe.

The French philosopher René Descartes (1596-1650) has prepared the field for it, unwittingly one has to say. In his book *Traité de l'homme* (*Treatise of Man*) (Descartes, 1664/2003), he proposed two revolutionary ideas. One idea was to separate the material from the mental realm describing matter as extended, solid, but also devoid of any vital principle of its own, and to assert that the mind has no extension, but is active as the principle of life. Thereby he only systematically described what Aristotle already had mentioned. What was new was the fact that Descartes conceived, unlike Aristotle, of two separable realms. This laid the groundwork for the later separation of the humanities and natural sciences, the latter being mainly dedicated to solving the puzzles around matter. The second revolutionary thought of Descartes was that he described *all* living beings, animals and human bodies alike, as mechanical automatons. Using the metaphors of the mechanical clockworks and toys of his time, he turned the idea around; if human craft could create clockworks of machinery that moved so elegantly as to imitate physiological movements, why not conceive of physiological bodies as machinery? This thought was extremely alien to a mind of the 17th century, but gradually gripped the imagination of scientists and laid the foundation for a mechanistic treatment of the physiological body. This move of Descartes also had an important consequence, which is only now seeing its fulfillment: Once the idea of the mechanization of nature had been consequently thought through and put into paradigmatic framings, there was no way of stopping this movement. On the contrary, it was only logical to extend it to the mind itself as well. Although Descartes carved out the mind from this mechanistic treatment of physiology, his successors extended the mechanistic metaphor to the mind.

What has been witnessed over the past decades is the consequence of the extension of the Cartesian program to the philosophy of consciousness and of mind. The mind is also seen as mechanical machinery. Modern brain science operates on the assumption that what can be seen in the brain *is* in fact operation of the mind. Some say the mind can emerge and become a separate kind of entity that has some causal influence on the material substrate, the brain. Some equate the operations of the mind with the operations of the brain. Some study mainly the functional relationships between neuronal entities assuming that the material substrate is irrelevant and only the function that is implemented by neurons is relevant. In fact what is relevant is that mainstream science is following this paradigmatic pull, conceptualizing the mind as machinery that is, ultimately, somehow identical with or causally dependent on its physiological substrate, the neuronal system in general and the brain in particular.

Such a view makes consciousness a secondary entity. If such a view is true, then consciousness is always late—and this is exactly the argument that is being used in modern discussions about the causal relevance of consciousness. A consciously experienced impulse to act is only experienced as such after all the neuronal antecedents have long before decided on the action (Burns, 1999; Libet, 1999; Wegner & Wheatley, 1999). Ultimately, the conscious self is a fiction created by extremely intricate neuronal machinery whose whole purpose is to secure survival of the system. For this survival it is useful to have a representation of the environment, as well as a representation of the system as an agent within this environment. But ultimately, the self is vacuous and appears as such, because the representational character is itself “opaque” to the system that is represented. Were it not opaque, an infinite regress would ensue that would again hamper the effectiveness of the representation (Metzinger, 2003).

Surely, in this view there is no such thing as “inner experience,” except in a secondary and epistemologically irrelevant sense. This “inner experience” can only refer to states of the neuronal machinery and such states will have no relevance for knowledge of the world at large. What spiritual traditions claim—that inner experience arising from spiritual practice can tell us something about the world, only from another, namely inner perspective—is nonsensical from a modern, scientific point of view. Such a modern view will always counter that, whatever is experienced, when someone has a nice inner experience—a near-death experience, an experience of heavenly bliss, an experience of a transcendent reality, you name it—that will always be a reflection of the state of the neuronal system, nothing else. If the neuronal system is under strain, as in a situation close to death, then it will create some soothing experience to make the demise of the system palatable to itself (Marsh, 2010). If the neuronal system is under some deprivation, as in most spiritual practices, or in another way in exceptional circumstances, as in a continually hyperventilated and excited state that Holotropic Breathwork[®] induces, then it will create strange representations. To relate these strange representations to any reality is a scientific fallacy. Such experiences might be adaptive; they may help the system to restructure itself after some psychological stress, say after a crisis of meaning and purpose, or after a life-threatening or psychologically threatening situation. But to assume that these experiences have something to do with reality is silly at best and scientifically outrageous at worst.

To put it bluntly, unless transpersonal psychologists can also provide a solid theory of how consciousness as such can have its own epistemological relationship with reality, they will always be seen as those guys who have missed out on the problem and hence provide solutions that no one will cherish. In order to provide such a theory, some serious thinking about ontology needs to happen. This is nothing short of an enterprise of providing the scientific basis with a new paradigmatic option that can serve as a new platform apart from the mechanistic one that has followed from the Cartesian view. Make no mistake here, simple reference to some anomalistic and outlandish data—from Shamanic journeying, near-death studies, Holotropic Breathwork, parapsychological experiments—will not do. It will not do, because a paradigm and a theory is always stronger than data. As pointed out above, humans are predictive, theoretical animals. We form a theory about the world and replicate it until we are

forced to change track. The same is true for science. A bunch of anomalistic data here and there will not bother anyone, except for those who wish to write the odd paper about how this bunch of data can also be interpreted without reference to any strange model of consciousness.

The Transpersonal Answer to the Challenge So Far

To me it seems as if no one has really understood the problem in its gravity. Transpersonalists have simply continued asserting that consciousness has some privileged status, without saying how this privileged status could be unified with the mainstream scientific effort. Some have simply tried to turn the wheel, or have not understood that a turning of the wheel would have to be involved if anyone were to take the proposal seriously, and tried to revert the discussion back to where it stood in about 1850, when the writings of Fichte, Schelling, and Hegel were still much debated and the idea of a mental activity as a prime source of everything, and hence “consciousness” in modern parlance, was a scientific option. One may dislike a historical point of view, but one thing about history is quite clear, it is next to impossible to turn the wheel back. The principle of “Wirkungsgeschichte”—the history of effects that ideas have created—introduced by the German philosopher and founder of philosophical hermeneutics Hans Georg Gadamer (1975) is important here; there is always some sense in what has happened. Put otherwise, there was a reason why the idealistic stance of “consciousness is primary, matter secondary” was given up by natural scientists in the middle of the 19th century. My personal interpretation is that this reason can be found in the fact that an idealistic philosophy in the sense of Schelling, Hegel, Fichte, and Plotinos for that matter, including probably most Vedanta styles of philosophy, does not allow for a fruitful notion of matter. One can of course lament and deplore this situation, but that does not undo it. The point to start from is the acceptance that the scientific community—scientists among whom are the most respected, most intelligent, and most powerful individuals—has at some point decided that it is more important and more fruitful to follow a paradigmatic model that allows for a solid analysis of matter and put the question of consciousness on hold.

This hold has now transformed into a busy kind of research along the very same line. Academic psychology has taken up that challenge and is moving along using the same paradigmatic assumptions as science does. This is where transpersonal psychology could come in. But it surely cannot come in stating that transpersonal psychology is possibly better for humankind, for psychology, and for integrating human experience by using implicitly—without open discussion and without really good arguments—a completely different set of assumptions than mainstream science. This is exactly what has happened, however, at least with a major part of the transpersonal movement. It was assumed that a psychology starting from an idealist assumption—that is, consciousness is primary, matter is secondary—is possible the same way as a psychology starting from a materialist assumption of matter as primary is possible, as most behaviorist, cognitivist, and neuroscientific approaches assume. Possible it is, to be sure, but ineffective, and this is what has been seen: ineffectiveness on a grand scale, despite a flood of publications, despite a host of assertions to the contrary.

The reason for this ineffectiveness, I argue, is that no one has really tackled the issue of ontology and argued a concise case, why in the first place and how in particular, could a different view be produced. Simple dualistic assertion will not do. That Cartesian conundrum as to how a separate substance, the mind—or consciousness—should affect a completely different one, namely matter, has never been solved. Science has just set aside the problem by cutting the Gordian knot with Ockham's razor, in effect stating "Forget the mind, it is only matter anyway or some sort of consequence of matter's organization."

A Brief Sketch of a Viable Alternative

I can only briefly sketch how a viable alternative would work and have to point the interested reader to our primary articles (Atmanspacher, Römer, & Walach, 2002; Römer & Walach, 2011; Walach, 2005; Walach & Römer, 2000, 2011). I think a minimal meeting ground between any spiritual claim—thus also of transpersonal psychology—mainstream science would be what I call the complementarist model of body-mind interaction. It starts from the assumption that complementarity, as originally introduced by Nils Bohr, one of the founding fathers of quantum mechanics, is a basic principle of nature, ontology, and epistemology alike (Bohr, 1937). Complementarity refers to the fact that an entity, a situation, or even a complex reality, can only be described by applying two seemingly contradictory statements at the same time (Atmanspacher & Primas, 2006). This is what the early theorists of quantum mechanics have discovered about the nature of the quantum. You can, for instance, describe its momentum and measure it exactly. But then you lose the knowledge of its position. You can measure its position, but then you lose all information about its momentum. Yet both, position and momentum, are necessary to characterize a particle. Although in classical, Newtonian physics, it is possible to measure position *and* momentum *independent* of each other at the same entity, say of a bullet shot from a gun, and thus predict trajectory and impact, this is no longer possible in quantum mechanics. Position and momentum of a quantum particle, say a photon, are both necessary to characterize the particle. Yet in quantum mechanics they are complementary, because they require measurement set-ups that are mutually exclusive. Technically speaking, so called canonical or complementary variables—position and momentum, time and energy, to name the best known ones—and complementarity are at the foundational basis of quantum mechanics (Kim & Mahler, 2000). They are irreducible, at least in the common conceptual framework that is currently most widely held. They are the source of the Heisenberg uncertainty relationship and they characterize the strange behavior of quantum systems. Two of them are worth mentioning here:

- 1 In quantum mechanics measurements impact the measured entity. Once position is measured, it is also changed. Only Newtonian physics knows a measurement without any impact on the measured, or rather, the impact of the measurement can be ignored.
- 2 In quantum mechanics complementary variables also define entanglement (Nadeau & Kafatos, 1999). Or put differently, entanglement is a special case of complementarity, namely the complementarity between the global variable, that is, the

description of a whole system, and the local variables, or descriptors of elements within the system. For instance, in a two photon system, where through down-conversion in a beam-splitting crystal two correlated photons have been produced from one single photon, the two photons form two elements of one system. The joint polarization of the system—the plane in which a wave is propagating—is the global variable. Individual photon polarizations are local variables. They are complementary to the global one—that is, their description is mutually exclusive. In mathematical terms: the polarizations are orthogonal. The system has to be described both by the global variable—spin 0—and the local variables—orthogonal polarizations—and both, the local and the global descriptions, are clearly incompatible or mutually exclusive within a classical logical framework. In quantum mechanics this is the reason why the two photons belonging to the one system described by one equation are “entangled,” non-locally correlated. If you measure one particle and find as a result spin up, you know instantaneously that the other particle will be measured as down. This is true even if you could separate the two photons so far and measure at exactly the same time so that no messenger particle could travel between the two and convey the result of one of the measurements to the other particle. This is why this correlation is often called non-local, a technical term derived from the special theory of relativity, in which light is the maximum speed in the universe and hence all parts of the universe that are connected by light beams are called locally connected. The particles in such a quantum entanglement experiment are not locally connected, because light particles could not travel the distance between the measurement apparatuses, and hence the correlation is called non-local (Cushing, 1989; Mermin, 1989; Wessels, 1989).

This theoretically predicted behavior of quantum systems has been empirically tested repeatedly and such entanglement has been observed, even at distances and with set-ups that make sure the correlation is really non-local (Salart, Baas, Branciard, Gisin, & Zbinden, 2008).

Now, it is well known, and also very important for a proper understanding, that some quantum properties only pertain to quantum systems as such (Tegmark, 2000). Entanglement, as a quantum property, disappears very quickly with the interaction of particles and the environment (Yu & Eberly, 2009). This also defines why human observers see a world that behaves in a largely classical way (Römer, 2011).

Nevertheless, it might still make sense to use the conceptual structures and framework of quantum mechanics. This is what we have done in forming a more general theory, Generalized Quantum Theory, which we stipulate is applicable to all sorts of systems and to systems of all make-ups (Atmanspacher, Filk, & Römer, 2006; Atmanspacher et al., 2002; Römer & Walach, 2011). Whether it is true and viable remains open to debate at this point, and I am claiming no more than general rational plausibility and some a priori reason. This a priori reason is the structural similarity and analogy between the make-up of systems (Baianu & Poli, 2011; Gernert, 1989; Zeleny, 1981). Ultimately this is an idea that is very old, but was again brought into the discussion by systems theory, claiming that some abstract principles of how systems are formed can be seen at all systemic levels, from atoms to molecules to organisms to

the Milky Way. In the same sense, our generalization of quantum theory claims that some principles of systemic similarity may perhaps be observed on every systemic level.

Complementarity was already suspected by Nils Bohr to play a role in epistemology and in other areas, when he, for instance, thought that ultimately the whole world might be governed by the principle of complementarity (Bohr, 1997; Rosenfeld, 1963). We have taken up this idea, which in its essence dates back to Heraclitus, but surely to Spinoza in the 17th century and, in another form, was taken up by Leibniz, his contemporaneous fellow philosopher who gave the idea another, more physical twist. And we have claimed that it is fruitful to conceptualize mind and matter, consciousness and brain, as two complementary descriptions of one entity, the human being (Walach & Römer, 2011). They are complementary in that they cannot be reduced to one another. Both are needed for a full description. And they are ultimate—that is, there is no other known entity that can serve as an explanation of both, except in a very speculative sense. We could, for instance, claim that there is still an underlying reality, the unified whole, Jung called it *unus mundus*—one world—that generates both mental and material ways of being (Atmanspacher, 2003; Atmanspacher & Primas, 2006). But that would be quite speculative and is not necessary at this level of conceptualization. What is necessary is the acknowledgement that both are ultimately of equal ontological dignity, that neither is “primary” or “superior” to the other. Rather they seem to co-arise and seem to be necessary to understand the human being.

Recently, some rather strong logical elements have been raised that are still not heard well enough (Hoche, 2008). They clearly show that to transition from mental concepts to material concepts or back is trespassing on categories and making severe category mistakes. Thus, I claim, a complementarist solution of the mind-body or consciousness-brain problem seems to be a rational proposal, plausible on the ground that it uses well-known principles of physics and extrapolates them, and it is non-reductionist. It allows consciousness actually its own status and thus also potentially its own epistemological role. If consciousness is co-primary with matter, one might not only have a route through the senses to understand the world, outer experience, but also the route through consciousness, inner experience. In other words, inner and outer experience are then also two complementary modes of relating to the world.

We have also generalized entanglement in our model. This follows naturally from the general description used above. We have produced a host of arguments and specifications elsewhere (Römer & Walach, 2011; Walach & Römer, 2011), hence I will keep it brief here. The mind actually fulfils some requirements known from quantum mechanics as being typical for quantum systems. For instance, if one “measures” a psychological state, say by introspection, that state is at the same time changed. This is a clear hint that we have some entity at hand that fulfils some requirements of a quantum description. We can conceive of mental and physical states as complementary to each other, but also as instances of descriptions that are complementary to a global systemic description, namely that of the whole person. In other words, we would assume that there holds also a generalized type of entanglement between appropriate mental and physical states. Thus, generalized entanglement would provide the “mechanism,” albeit of a non-local kind, with no signaling happening, that co-ordinates the mental and the physical system. It then also becomes clear why mental states can

be causal for physical states. It may also be rationally conceivable how human units, single persons, can form systems that again are non-locally coordinated into a kind of synergism that works without classical signals. A good example can be the extremely fine tuned coordination of artistic groups like ballet dancers, orchestras or choirs in exceptionally harmonious performances.

This, then, could foster the field of transpersonal psychology with a basis to stand on, and a minimal consensus with the mainstream: Consciousness as complementary to matter allows for epistemological access of consciousness to reality in its own right. Although the step to generalized entanglement is by no means dependent on, or consequent of that stipulation, it is a naturally occurring one, once one has accepted that the principles—I repeat, the principles, not the physics—of quantum mechanics may have relevance for the world at large. But I would like to leave it here, as we are clearly entering a highly contentious area. I have sketched this to demonstrate one thing: It is possible to use the theoretical structures offered by mainstream science and extend them to incorporate phenomena dealt with in the spiritual domain or in transpersonal psychology (Walach, 2011).

Four Roads into the Future

From here, there are several options to move forward, and all have been tried with more or less success:

- 1 Oppose the development of the mainstream, claiming that transpersonal psychology has so much more to offer, and that one should just abandon the Titanic that is sinking anyway and move about in little rafts. Only the Titanic is not sinking and the rafts have not gotten anywhere.
- 2 Try to offer a completely different ontology, for instance one of the older idealistic systems, or one of the Eastern ones, claiming that they are better suited to accommodate spiritual experiences. Only few people believe that there is anything worthwhile of which to take note.
- 3 Try to leave the paradigmatic foundations of science unchallenged accepting the course and route it has taken and say, “Well folks, like it or not, unless you go scientific, you will not be able to produce an impact and you will not be taken seriously.”
- 4 Try to offer new paradigmatic foundations to science, accepting the route it has taken so far, but extending its scope by using the armament, the conceptual foundations, and the theoretical instruments science has in store. This is what I have tried to sketch above, and it goes without saying this is what I believe is the most fruitful and potentially the most powerful and also unifying approach.

The first route is what many Transpersonalists have done. They have created their little universes and their own rafts, some of them quite comfortable. In that category I would place a lot of the work done around altered states of consciousness, through Holotropic Breathwork or drugs (Griffiths, Richards, Johnson, McCann, & Jesse, 2008; Krippner & Sulla, 2000; Shanon, 2002). Some of this work is seeking

relationship with the mainstream by using scientific methodology. This may be a first important step, but it may not be sufficient, because it is still happening in a context that is a bit like an isolated island or raft.

The second route is what some grand approaches to transpersonal psychology have tried. I would class Wilber's attempt here. If the conceptual foundations were more historically conscious of the problems in the history of science one could avoid the pitfalls. But as I see it at the moment, this attempt is not really working, because it neglects both the historical preconditions and the actual and current types of theorizing. The parallels between spiritual disciplines and science are too naïvely accepted at face value and the understanding of what science is and how it operates is coming too much from an outdated understanding of scientific background theory. Ultimately, it will be publication of ideas in peer-reviewed, mainstream journals, tapping into mainstream debates that will be the only means of influencing the discussion.

The first two approaches are also often associated with the founding of subcultures and special universes of discourse that are unconnected with the rest of the world and derive their own definitions and understanding from the fact that they are supposedly so much better than what the rest of the crowd is doing. This is a narcissistic motive and, in my view, a big problem of the whole field (Walach, 2008). In it, founders and leaders can feel important, collecting followers who support this interpretation, ultimately keeping both restricted in a narcissistic collusion that neither helps solve problems, nor moves our insight forward. A clear sign that this is happening, in my view, is whenever special circles of in-groups separate themselves from the "others," who are seen as not understanding as deeply. The history and presence of transpersonal psychology is full of this.

The third route comes in two flavors. One flavor relies on the mainstream scientific ground of the natural sciences and categorizes psychology as a natural science. Within such an approach, one can surely use the methods of science to study such transpersonal aspects, specific interventions, say, or construct questionnaires to capture transpersonal constructs as expansion or transpersonal trust (Friedman, 1983, 2002, 2009; Friedman & MacDonald, 2002; Kohls & Walach, 2008; MacDonald, LeClair, Holland, Alter, & Friedman, 2002). The other flavor uses a humanities approach and relies more on the discussion that has been produced within the cultural studies area. This has been dubbed Transpersonal Studies (Friedman, 2002). This is surely a viable route and some of the authors working within academic institutions use it (Lancaster, 2000, 2004, 2011).

The fourth route is what we have started and which I would naturally advocate as the best. It is, admittedly, likely also a bit more strenuous and difficult, but is the only one that I see as a viable, forward route that has a chance of creating impact.

So how could it work? I think the key would be the Science and the Culture of Consciousness.

Towards a Science and a Culture of Consciousness

The natural partners for transpersonal psychology are all those people who are trying to build a science of consciousness. Here, at present, a mainstream view that starts

from materialist assumptions dominates. But this is so, because most other people have moved out. I think this mainstream view needs challenging. So far the challenging has happened so far from behind the hedge. It needs to happen in the open. That means writing and publishing in and for mainstream outlets, thus discussing the pertinent issues. For, after all, there are common topics: how to understand consciousness, what concepts are helpful, and where the common ground is.

From a practical point of view the common ground is the culture of consciousness (Metzinger, 2006). In a modern world with an exponential growth of information technology, cognitive capacities are taxed to the limit. Soon there will be an epidemic growth of incapacitated individuals who cannot handle any more the amount of incoming information and whose cognitive capacities are crippled by information overload. Only some way of cultivating consciousness through practices that have naturally been the domain of transpersonal psychology and spiritual traditions—meditation, techniques to relax and collect the mind—will likely be reliable measures of relief here. This is where theory will meet practice and the notion of transformative practice will come into effect (Hartelius, Caplan, & Rardin, 2007). Thus there is common practical ground.

These issues will also let the areas of dissonance—the conceptual and philosophical issues—move towards the background in order for some practical solutions to come into focus. This may give a wholly different twist to the discussion. What transpersonal psychology does might even be defined as the study and culture of consciousness. Interestingly enough, the researchers studying the neuroscientific basis of consciousness and the neurocognitive models of consciousness, even though coming from a strictly materialist point of view have realized one thing: The brain, substrate to the elusive phenomenon of consciousness, is itself being remodeled and changed by consciousness in action. Just learning how to juggle will have changed the thickness of the respective brain areas within a week (Driemeyer, Boyke, Gaser, Büchel, & May, 2008). In the same sense, all activities will have an effect feeding back on the brain, the substrate of our consciousness itself. In other words: consciousness and how it is directed will change the material basis of its own subsistence. This has also been shown for meditation: meditators have different brain structures than people who do not meditate (Ott et al., 2011).

If it is possible to show, empirically and with accepted methodology, that following a spiritual discipline will have an impact on people's lives, on their experience of difficulties and suffering, of illness and disease, then transpersonal psychology will have made a difference. If one replaces the terminology of "spirituality," "spiritual," "religion," and "religiosity," which all have a denominational ring to them, by the term "culture of consciousness" then the enterprise is aligned with the thrust of science. By harnessing the insights and the power of science, it becomes possible to move away from a separatist position. That will still allow people to hold on to their own private creeds and belief systems. It will not abolish religion and it will not negate spirituality. But it will move them out of the domain of science and will move those elements that can be aligned with science closer to it. Once this has happened, the vision of the founding fathers and mothers of transpersonal psychology will have become true. Psychology will then have become more inclusive and will have introduced the idea of growth beyond what can be perceived at the moment.

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