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Transforming Transformation:
Background to an Alchemical Cybernetics

Seth Miller

Abstract

This essay begins to explore concerns raised by the contemporary study of the sociology of knowledge to the potential inception of a discipline I am calling cybernetic alchemy. Historical streams of alchemy (mystical, proto-scientific, fraudulent, and contemporary) are discussed in order to better identify their culturally influenced assumptions and claims. Questions about the male-dominated practice of alchemy are situated in current sociological discourse provided by E. Doyle McCarthy, and potential challenges to a cybernetic alchemy are discussed in relation to the dominant cultural values of American society using the work of Edward Stewart and Milton Bennett. The work of Piotr Sztompka raises fundamental questions about the incorporation of the concepts of development, evolution, and progress, which alchemical cybernetics must address. Lastly, an exploration of my personal cultural and social situatedness is attempted to help tease out possible effects incurred by my approach to the establishing of cybernetic alchemy.

Introduction

As of yet, there is no discipline of alchemical cybernetics. It could be argued that there is no singular discipline of cybernetics, let alone a singular alchemy. To have an alchemical cybernetics, or perhaps a cybernetic alchemy, is then to have something of a chimera, whose formation necessarily arises out of a particular and situated adapting, meshing, and reconstruing of ideas, techniques, and histories. It must therefore be kept in mind that any number of alternate interweavings of these two varied disciplines is quite possible. Nevertheless, a beginning can be made; we can say that cybernetic alchemy offers to reexamine the central principles of historical alchemical wisdom in the light of contemporary ideas from cybernetics (especially ‘second-order’ cybernetics), systems theory, and complexity science. The goal of such a union is, on the one hand, to “update” using more current language and thinking key alchemical principles, while on the other hand using this same language to show the timeless importance and applicability of alchemical precepts. In the spirit of cross-fertilization, this proposed marriage is meant to bring to light, extend, and usefully apply key concepts from each realm to the other, and therefore to the wider world beyond.

The modern study of the sociology of knowledge provides a set of conceptual tools with which to explore the contingent arising of such a thing as an alchemical cybernetics, and can help illuminate and describe the possible ways in which such a topic might engender itself. The sociology of knowledge recognizes, primarily, the *culturally* situated factors behind the production of knowledge. To this end, the present essay will explore how the sociology of knowledge illuminates the background, inception, and futures of the possible discipline of alchemical cybernetics, with particular reliance upon the works of E. Doyle McCarthy, Piotr Sztompka, Edward Stewart and Milton Bennet. However, taken not on a grand scale, but applied

(as it implicitly must be) also to the individuals involved in the production of new areas of conceptual exploration, it is necessary also to include something of a sociology of myself, for by making explicit my own assumptions and history, I will hopefully bring to light the possibility of alternative ways of conceiving a field that has yet to be invented. It therefore will not be possible to directly examine the discourse of cybernetic alchemy (no such discourse exists, and is in some sense being created by this essay). Thus, for the purposes of this paper I will focus most strongly on alchemy, which has a much longer history and which will form the greater part of the content of cybernetic alchemy. The cybernetic aspect will serve primarily as a contemporary framework and language for the reworking and ‘updating’ of more traditional alchemical principles.

Alchemical Vicissitudes

Most histories of Western alchemy (I will not treat the valid traditions of Chinese and Indian alchemy in this essay, despite the fact that Western alchemy was influenced by these traditions) trace its inception to ancient Egypt. From there it moved into Greece, where it was modified and transformed in accordance with the intellectual revolutions that took place there. The Alexandrian cultural wave further spread basic alchemical principles, bringing together a wide variety of influences and further transforming alchemical knowledge and practice. Alchemy survived the Early Middle Ages and the rise of Christendom primarily through the surge of alchemical practice in the Islamic world. Arabic translations of older works that would otherwise have been lost, along with the production of many new and original alchemical works, allowed for the “re”-introduction of alchemy (it had never completely disappeared) into medieval Europe through Spain and the Arabian occupation by the Moors (Cockren 1940).

In Europe alchemy continued to evolve along a variety of paths, but stood for many centuries as the most prominent method of understanding and working with the natural world. Despite its long history, alchemy fell into disrepute in the fourteenth century, owing to the unscrupulous activities of alchemical charlatans who preyed on the greed of unsuspecting patrons. This drove much authentic alchemical practice underground.

During the seventeenth and eighteenth centuries, many alchemical techniques were adopted by the new scientific method of studying the natural world. Alchemical knowledge provided a firm foundation for what later became the discipline of chemistry, which distanced itself from its alchemical roots, seeing it as childish and fantastical. The rise of materialistic science has proved the greatest challenge to alchemy, which had always incorporated mysteries beyond the purely physical, explicitly linking the divine with the material world.

Despite this challenge, the theory and practice of alchemy has been continuously in development even into the present. Contemporary alchemy is cognizant of the epistemological system of Western science, and attempts to incorporate in a new way the insights of the ancients with contemporary techniques provided by modern science. At the same time, contemporary alchemy also finds practitioners who incorporate insights from modern disciplines such as psychology, comparative religions, postmodern philosophy, and quantum physics, to mention only a few.

As might be expected, within this long and convoluted history, we find not a single alchemy, but a whole tapestry encompassing the weaving together of many different alchemical threads. Although it is not possible to completely separate these threads from each other, for the purposes of simplification we can identify a few major streams that have prominence in the

weave: the mystical, the proto-scientific, the fraudulent, and the contemporary. The contemporary stream has two major components, the practical and the spiritual.

Engendered Knowledge

E. Doyle McCarthy, a sociologist at Fordham University, points out that in any discipline, its cultural history (only briefly outlined above in the case of alchemy) is inextricably intertwined with both the knowledge that is produced by the discipline and how the discipline perceives itself. These two factors interact to create a complex basis for her major statement that “knowledge *is* culture” (McCarthy 1996, p. 108). In other words, knowledge production in alchemy is implicitly bounded by the culture in which its practice occurs and by the social situation of its individual practitioners. Therefore, the thoughts, descriptions, and practices of alchemists are highly influenced by factors which lay beyond the arenas which alchemists themselves might explicitly identify as lending support to their knowledge claims. Therefore it will be useful to explore the way in which knowledge is constructed in the discipline of alchemy, so as to identify the embedded assumptions which inform its claims.

Knowledge is produced differently in each alchemical stream, although great overlap exists between them (and we must keep in mind that this particular division itself is somewhat dependent upon my own predilections). The mystical stream of alchemy sees itself as embodying divine knowledge, largely on the basis of esoteric practices which prepare the adept to directly receive divine insight. Knowledge claims are thus backed by the force of revelation. However, it is understood that an alchemist may work diligently throughout his (we’ll get to gender later) entire life and never progress far in the production of the ‘Great Work’. This is because the bestowal of alchemical knowledge is not completely under the control of the adept.

Rather, a component of grace is often identified as necessary for the engenderment of the most important piece of knowledge that allows the alchemist to proceed at a critical juncture.

However, once such knowledge is acquired, alchemists took pains both to reveal and conceal their knowledge. This lends a definite strangeness to historical considerations of alchemy, because one can never be sure that claims made by alchemists are forthright. In the mystical stream, it was understood that knowledge was a sacred power, not to be divulged to the unready or unscrupulous. For this reason its communication was made deliberately labyrinthine, so as to discourage the uncommitted and confuse those who would seek to use such knowledge as a basis for religious persecution.

Compounding this problem is the addition of the alchemical stream here called fraudulent. In addition to genuine and eager practitioners of "The Art," who undertook alchemical study as a form of self and world-purification (most strongly held in Rosicrucian alchemy), a wide variety of 'puffers' who essentially pursued only the material realization of alchemical wisdom, created a milieu in which bombastic claims and deceptive practices let many unsuspecting patrons of the art astray. Less-than-pure alchemical charlatans, or even genuine alchemists who, for various reasons, allowed need or greed to unduly influence their practice of the art, thus made claims on the basis of personal gain under the aegis of the obscurity and complexity of received alchemical wisdom. In particular, the transformation of base metals into gold and the panaceanic effects of the Philosopher's Stone were two long-standing areas of alchemical work which provided much opportunity for exploitation. The claims of the fraudulent stream were thus often designed to procure money or status, and the abuse of the more pure alchemical streams in this way has created a cloud which still rains to this day.

Into this already convoluted picture we must add the proto-scientific stream of alchemy, which, of all the streams, is perhaps the most widely accepted and recognized today. This stream sees alchemy as providing some key initial impulses behind the development of the scientific method, and in particular, the science of chemistry. From this perspective, alchemy was thought to be something of a transition period between an almost completely naïve understanding of the physical world and the enlightened conceptions of modern reason based on experiment. Most of the claims of alchemy, from this perspective, are discarded in favor of a historicity of modern scientific methodology. Any reference in alchemy to spirit, soul, the divine, or the non-material is thought to express imaginative frameworks and explanations created to help the alchemists conceptualize their phenomenological experience in view of their lack of the detailed conceptual tools of later experimental science.

Taking cues from McCarthy, we can see that the practice of alchemy, the knowledge claims it makes, and its self-presentation all take forms which are highly embedded in given cultural settings. The mystical alchemists, often living in a world where the most prominent claims to knowledge were provided by religious authorities, perhaps naturally made claims upon a similar basis, relying upon received knowledge in their own tradition. The proto-scientific stream, stemming from the culture of the Enlightenment, carries the assumption that the worth of alchemy lies not in its own claims (self-purification, healing, material transformation), but in the very practical methods it developed to explore natural phenomena. The fraudulent stream saw alchemy as a means to an end, taking its claims and using them to gain power, status, and wealth – social factors all.

As McCarthy indicates, “no knowledges are exempt from the operations of power and ... any and all knowledges operate as *languages* (the preeminent cultural form). This means, *inter*

alia, that, as with language, knowledges provide the structures and operations for all representations of reality.” (McCarthy 1996, p. 95) The claims made by alchemists from the various streams can be seen as arising out of, and consequently contributing to, the cultural basis for particular representations of reality. In the fraudulent stream, alchemy itself was often seen as fraudulent, its supposed wisdom unverifiable or at least inaccessible, but providing a fertile ground for manipulation of those who believed it. On the other hand, the very fact that such wisdom could be taken advantage of in such a way as to leave its indelible mark on the history of alchemy shows that this very wisdom served as a strong cultural basis for a particular conception of the world.

Following McCarthy’s exposition of the influence of the masculine on the development and resulting knowledge in modern science, it must be pointed out that the vast bulk of alchemy seems to have been practiced by men. The conspicuous absence of female alchemists (with some major exceptions, such as Maria the Prophetess) may not be an insignificant factor when we consider the actual way in which alchemy was practiced and the knowledge that it produced. But here we run into an interesting feature of alchemy; from its very beginning it has explicitly included both male and female as equally necessary for alchemical work. Even while the science of the enlightenment was taking shape with its masculine ideas of the domination of the Earth, the valuation of reason over emotion, objectivity over subjectivity, and culture over nature (McCarthy 1996, p. 98), alchemical drawings were being made which showed the necessary inclusion of the male with the female in the image of the hermaphrodite.

In alchemy we find that descriptions of processes and substances are often couched in gendered terms, for example: Terra Mater (Mother Earth), the King and Queen, Mother of Vinegar, even Hysterical Water, etc. The categories of masculine and feminine were explicitly

used to indicate the natures of various substances and processes, but it was understood that it was not possible to achieve the Great Work without integrating both these energies – indeed the Great Work was itself expressive of just this accomplishment. Yet, the explicit valuation of particular qualities with each gender begs the question of whether or not such identifications are warranted, and whether these categorizations served the dominantly male practice of alchemy.

For example, traditional association of masculine with active and feminine with passive traits in alchemy may be as much a construction as a description. Also, the use of hierarchies, so prevalent in alchemy, seems to be a primarily masculine form of knowing. Still, it must be recognized that in looking at the actual processes of alchemy, we see a combination and alternation between masculine and feminine: calcination, dissolution, separation, conjunction, fermentation, distillation, and coagulation, to name but a few. It seems that McCarthy's claims about the masculine roots of science don't have quite the same strength when applied to the unique discipline of alchemy, which (at least on the surface) explicitly paid consistent homage to feminine elements.

Alchemists often use hierarchies of various types and generally subscribe to a developmentalist perspective in which the metaphor of progress was central. It was understood that matter and spirit are inseparable although distinct, and that matter can be brought to a more divine state. The stream of spiritual alchemy explicitly identifies alchemical knowledge as that which can help perfect the human being in a similar way. But, given the situated arising of alchemical wisdom, what about McCarthy's claim that "what we thought we knew about psychological and medical 'human development' was, in effect, a knowledge of male development" (McCarthy 1996, p. 91)?

In other words, to what extent is the explicit inclusion of the feminine possible without the actual inclusion of women in the practice of alchemy? This is a difficult question to answer, but perhaps a few comments can be made. First, it should be recognized that to some extent, alchemy has always remained an *esoteric* discipline, later called *hermetic*. This meant that the bulk of alchemical work, including communication between practitioners as well as its historical continuation from generation to generation, took place in private. Generally speaking, for the greater part of alchemy's history, most of the knowledge and practices were kept relatively secret, being passed on only individually to those whose moral and spiritual character was seen to be worthy by a practicing adept. To this extent alchemy maintained itself in much the same way as traditional disciplines such as building, metalwork, the healing arts, and so forth (each of which communicated their most prized secrets only to the 'initiated'). Because of this, it may be possible that the kinds of outward social pressures that led, on the one hand, to expression of primarily masculine traits in the rise of science, affected the esoteric disciplines less, or even in complementary ways. For example, Linda Shepherd, in her book *Lifting the Veil: The Feminine Face of Science*, identifies eight feminine traits that historically have been marginalized by mainstream science: feeling, receptivity, subjectivity, multiplicity, nurturing, cooperation, intuition, and relatedness (Shepherd 1993). At least some forms of the practice of alchemy, it can be strongly argued, both explicitly and implicitly recognize and develop these values, along with their masculine counterparts. Is it possible that the disproportionate lack of female alchemists was due not so much to the social structures of alchemy itself (as McCarthy claims in the case of science (McCarthy 1996)) but to the wider exoteric culture? In this sense, might it be possible that it is precisely the esoteric aspects of alchemy which have allowed it to continuously embrace and incorporate elements of the feminine – despite the larger cultural milieu?

Piotr Sztompka, in his text *The Sociology of Social Change*, points out that even the concepts of development and progress, prevalent in alchemy, are social constructs (Sztompka 1994). He argues that change – which was explicitly identified as the major focus of alchemy – can be conceived of in a number of alternate ways, each socially defined. Sztompka shows, for example, that the concepts of development, hierarchy, and progression all mutually support and engender each other, leading to seemingly evidential reasons for valuative schemes that necessarily *devalue* elements identified as lower on the hierarchy (Sztompka 1994, p. 26). Of course, as Sztompka indicates, “progress is always relative to the values which are taken into account. It is not a purely descriptive, detached, objective concept, but rather a valuational category” (Sztompka 1994, p. 28). Given this, it is perhaps more apropos to ask about the specific results of the valuational categories identified in alchemy – to what do they lead?

Here, again, we find alchemy to be a strange bird, straddling divisions and not willing to be easily settled into one realm or the other. Certainly the valuational categories utilized by the fraudulent alchemists didn't do much good for society at large, nor for the discipline of alchemy itself. The proto-scientific stream values alchemy's experiential basis, its willingness to experiment with the material world, and its practical additions to knowledge of substances. These values led to the beginning of modern science and all its associated technologies and problems. From the perspective of a contemporary alchemy, we see that both the spiritual and material roles of alchemy are valued. Yet unlike in the proto-scientific stream, both the practical outer results of alchemical knowledge *as well as* demonstrable inner shifts precipitated by its practice (in character, perception, relational capacities, attention, patience, calmness, decisiveness, etc.) are valued. So too, from this perspective, it is understood that the wisdom of alchemy is meant for the betterment and perfection of all humanity, and often involves the

production of healing medicines or therapeutic techniques. Indeed, Rosicrucian alchemists often did such work anonymously, ‘giving away’ the fruits of their practice so as to not get caught in the trap of self-aggrandizement and power-mongering.

Challenges

Contemporary scholars who contribute to alchemical discourse do so from a variety of perspectives. On the one hand we have scholars who research alchemy from a primarily historical perspective, tracing the genesis of particular ideas, the lives of various personalities, and the influence of alchemical ideas on cultural forms, and vice versa. For the most part, these scholars do not themselves practice alchemy. On the other hand, many practicing alchemists contribute to the subject; some in an explicitly scholarly way, others in a more practical way (by running seminars, teaching labs, coaching, etc.). However, the vast majority of American culture at large has little to no familiarity with alchemy, and generally what is known comes through the somewhat disparaging proto-scientific lens, which essentially discounts the major alchemical claims. This is especially true in established academia.

Therefore the creation of a field such as alchemical cybernetics, which tries to build upon and make explicit the contemporary usefulness of alchemical wisdom, will likely need to take into account potential resistance to its non-traditional assumptions. Stewart and Bennett point out that “coherent personal philosophies and systematic ideologies are both rare in American culture” (Stewart and Bennett 1991, p. 140), which is much more amenable to goal-oriented pragmatics rather than theory (Stewart and Bennett 1991, p. 32). While alchemical cybernetics is meant to be practical, some of its major principles might find themselves going against the cultural grain. Such principles include circular rather than linear processes, multiplicity of

perspectives, metaphor, quality, non-dual relations, non-dichotomous use of language, the necessity of ambiguity, creativity, use of polarities to engender non-polar avenues for change, community, integration of thinking, feeling, and willing, recursivity, non-self reliance, surrendering of control, inclusion of the non-material, cooperation, process rather than goals, and the inherent mystery of existence.

Stewart and Bennett indicate that American culture stresses facts, logical analysis, practical results (Stewart and Bennett 1991, p. 121), lineal time (Stewart and Bennett 1991, p. 123), the subjective/objective dichotomy (Stewart and Bennett 1991, p. 121), measurability (Stewart and Bennett 1991, p. 126), self reliance (Stewart and Bennett 1991, p. 136), the ability to change (Stewart and Bennett 1991, p. 114), control of nature (Stewart and Bennett 1991, p. 115), materialism (Stewart and Bennett 1991, p. 118-9), confrontation (Stewart and Bennett 1991, p. 97), externalized achievement (Stewart and Bennett 1991, p. 81), doing over being (Stewart and Bennett 1991, p. 70), rational order in the world (Stewart and Bennett 1991, p. 68), clarity over ambiguity in language (Stewart and Bennett 1991, p. 55), reliance on dichotomies in language (Stewart and Bennett 1991, p. 52), language as mechanism (Stewart and Bennett 1991, p. 46), empirical observation (Stewart and Bennett 1991, p. 42), separation of emotions from thinking (Stewart and Bennett 1991, p. 43), and negative reasoning and null logic (Stewart and Bennett 1991, p. 36), among others.

It is clear that many aspects of cybernetic alchemy are either directly counter to, or at least orthogonal to, prevailing cultural attitudes in America as identified by Stewart and Bennett. The extent to which these attitudes present an actual challenge to cybernetic alchemy is undetermined, and likely depends in large part on the manner, timing, and place(s) of its presentation. On the other hand, the American valuation of change, self-motivated action

(Stewart and Bennett 1991, p. 77), and optimism (Stewart and Bennett 1991, p. 123) lend themselves well to the implementation of a cybernetic alchemy. Additionally, it should be mentioned that one of the central aspects of cybernetic alchemy is its ability to ‘play the field’ and not hold up any given principle in a dichotomy with its opposite. Rather, cybernetic alchemy attempts to create a language and method which allow for creative movement between and among polarities without overreliance upon either ‘side’, while also not calling for the dissolution of the idea of ‘sides’ altogether. This principle helps alleviate some of the potential conflicts noted above, as cybernetic alchemy recognizes the usefulness of dichotomies as nodal points around which change can be creatively structured.

From another angle, it may be important to take a look at whether, from the perspective of the sociology of knowledge, the reliance in alchemy upon the ideas of development, progress, and evolution, undermines the validity of cybernetic alchemy in light of Sztompka’s claim that persistent sociological critiques of these notions have led to their “slow erosion and finally [their] utter demise” (Sztompka 1994, p. 190).

Sztompka identifies a “triad of ontological assumptions, which ... [have] been found to underlie all evolutionist or historical-materialist accounts: determinism (‘predetermined path’), fatalism (‘inexorable necessity’), and finalism (‘predetermined stages’ leading to some ultimate stage, ‘the end of history’)” (Sztompka 1994, p. 181). Cybernetic alchemy includes the idea that human beings, and the actual physical world we live in, are in a continual process of development, and that this development *can be*, but is not *necessarily*, directed towards some final goal. In other words, the activity of *human agency* is a central aspect, upon which the whole practice of alchemy rests. We find that it is precisely this tenet that Sztompka identifies as “the central area of sociological theorizing” (Sztompka 1994, p. 201)

Additionally, the developmental paths explored in cybernetic alchemy are not simply determined, nor are they directed to a singular final outcome. Rather, the paths are understood to be complex and ongoing creations of individual agents in recursive dialogue with communities, society, the Earth, and spiritual worlds. Despite the assumption of progression, cybernetic alchemy does not arbitrarily restrict progression to a pre-defined set of goals; it leaves room for the shifting of goals on the basis of the working through of the processes of their realization (another recursive loop). Despite the metaphor of the Philosopher's Stone, taken in some aspects of traditional alchemy as a 'final goal', cybernetic alchemy does not assume that the achievement of the Great Work is such that its accomplishment ends the process of its creation. Rather, the Great Work is understood to be a continual one, whose existence constantly depends upon the processes that support its realization; it does not exist as an objectifiable 'thing' apart from its autopoiesis.

In this sense, a cybernetic alchemy is in a good position to agree with Sztompka that "knowledge is an intrinsic part of social reality, causally effective with respect to other dimensions of society" (Sztompka 1994, p. 183), as well as with the basic features of his "double morphogenesis" theory, which recognizes "both structure and agency [as] conjoint products of interaction" (Sztompka 1994, p. 200). At the same time, alchemical cybernetics recognizes the value of the concept of development, and that adopting a point of view in which "it is mandatory to get rid of the concept of development" (Sztompka 1994, p. 189) because we now have "the antidote to developmentalist temptations [in] historical concreteness" (Sztompka 1994, p. 186) presents a potential over-reliance upon one side of the proposed dichotomy. Instead, both development and historical concreteness are taken as potentially useful precepts in the field of creative transformation.

Personal Analysis

As mentioned in the introduction, it will be necessary to attempt the elucidation of my own cultural and historical situation and concordant assumptions, as the attempt to find a basis for the cybernetics of alchemy may be unduly influenced by their nature. As a white American male who grew up in a primarily upper-middle class environment, I certainly fall into a fairly well defined cultural group. If I were a woman, would my assumptions about alchemy, and more importantly, about the possibility of a cybernetic alchemy, shift; if so, how? Would such differences be great enough that the fundamental aspects of cybernetic alchemy would shift in response? This is, of course, a primarily hypothetical question, but it does raise the wider point that, at the very least, it would be important to receive feedback (and better yet, active participation of) members of a variety of groups that fit different social, gender, and racial backgrounds.

In my own approach to the topic, I wish to maintain, on the one hand, an intellectually approachable basis and language of description for cybernetic alchemy, while on the other keeping such conceptual concerns continually grounded through praxis. It is entirely possible to enact principles of cybernetic alchemy without their corresponding intellectualization, but I personally feel that the two aspects evolve hand in hand, modifying each other, and the practitioner too, over time. Because my historical background shows a predisposition for theoretical concerns and formulations, it will be important for me to balance this with action if I am to hope to live up to the very principles I declare.

Certainly my social background plays a role in how I go about exploring the topic. On a very basic level, the privileges I have been offered with respect to my education allowed me to

come into contact with a wide variety of ideas and practices from all across the world, specifically around transformational understanding. Knowing that such experiences cannot be assumed to exist in the culture at large, it will be important to create a way of presenting the discipline that allows it to find purchase in a wide variety of social settings, without giving up or over-simplifying its basic foundations.

From another angle, to what extent does my social background influence preconceptions that may in turn change how I view cybernetic alchemy? Does growing up through an educational system that did little to make apparent perspectives from other cultures blind me to the ways in which I construe cybernetic alchemy? Perhaps my views are Western-centric in nature? Do I fall prey to the many American cultural patterns pointed out by Stewart and Bennett? What would a cybernetic alchemy look like that did NOT focus on practical results, logical relations, the ability to change, doing and action, and rationality?

With regards to ideas about change, I can identify that I have been influenced by my undergraduate philosophical studies (notably Alfred North Whitehead's process philosophy and Indian philosophies such as Advaita-Vedanta). More strongly, however, I have been influenced by the work of Rudolf Steiner with regards to my perception of historical change, the possibilities for future change, and the necessity of including non-material considerations when discussing these. On the one hand the tools and experiences offered through Steiner's works have been a major factor in getting me to the point where I could even consider such a thing as an alchemical cybernetics. On the other hand, Steiner's views are quite firmly rooted in (a version of) developmental, progressive, and evolutionary philosophy, found to be so outdated by Sztompka. Will it be possible for me to acknowledge the contribution of Steiner while at the same time keeping myself capable of conceiving alternative possibilities?

Lastly, I recognize that these are not questions which I can answer in isolation. Rather, it seems important to enter into experimentation and dialogue with a variety of people and disciplines which would allow for a potential enrichment of and, at the very least, awareness of potential areas for the development of cybernetic alchemy.

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