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The Hidden Lineage of Modern Management Science: Astrology, Alchemy and the Myers-Briggs Type Indicator

Garry Phillipson and Peter Case

Abstract. Beneath the surface of some significant contemporary management practices there exists evidence of pre-modern cosmology. The influence of astrological and alchemical ideas on organisational conduct has not, however, attracted very much serious social-scientific attention to date. The Myers-Briggs Type Indicator (MBTI[®]) is described and reasons discussed for considering it to be a prime example of the underpinning of the modern by the pre-modern. C.G. Jung's role as mediator between pre-modern and modern is considered, with some investigation devoted to the four function-types and two attitude-types which he propounded, their origins in earlier symbolism, and their influence on subsequent psychological theory and practice. An astro-genealogical account of the development of the MBTI is offered, taking into account its debt to Renaissance and earlier forms of thinking and symbolism. In conclusion, a warning note is sounded: the modern need to place psychology on an entirely scientific footing can manifest as a dogmatic, belief-driven revisionism that produces a fragmentary, potentially alienating, view of the individual.

Introduction

To the best of our knowledge, there has been no reputable investigation of astrology and its relation to the field of organisation and management. This seems a little surprising given the interest in astrology in the business world. It is not unknown for contemporary corporations to seek astrologers' help in making decisions; the attention of the marketing world is also sometimes drawn by the possibility that astrological knowledge might enable companies better to target their products and services;¹ and similar interest is sometimes expressed amongst the financial fraternity.² Accordingly, the work presented in this article marks a preliminary attempt to render the topics of astrology and alchemy as

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manifested in contemporary corporate life subject to serious social-scientific inquiry.

In this endeavour we would like to be seen as taking up Burrell's recent invitation to pursue the notion of 'retro-organisation theory'.³ What follows is, in effect, some retro-organisational research; a brief investigation of astrology's influence on contemporary management theory and practice, which leads into a genealogical analysis of Jung's thinking to trace the manner in which astrological archetypes are silently inherited by a psychological science that, in turn, informs certain organisational practices.

The Myers-Briggs Type Indicator (MBTI®)

To exemplify the psychological science to which we refer, we take the Myers-Briggs Type Indicator (MBTI). A few words of introduction to this technique may be in order. Proponents of the MBTI claim it to be the most widely used psychometric test in the world, and an estimated 3.5 million MBTI tests are administered each year in the USA alone; it has been translated into two dozen languages and is routinely used in Canada, the UK, Australia, New Zealand, Japan, Germany, Italy, Singapore, Korea and many other countries.⁴ Its popularity owes much to the fact that business communities across the globe have found it of practical value - not least because of empirical evidence correlating 'psychological type' (as defined by the MBTI) with occupational role⁵.

The MBTI is commonly deployed to assist decision-making in a variety of management training and personnel areas, including: recruitment and selection; career counselling; team building; organisational change; individual and leadership development. It is also frequently used in post-experience and post-graduate management educational contexts, with students on Masters in Business Administration courses often being exposed to the test at some point in their studies. Whatever one might wish to challenge or criticise about this instrumental form of character analysis, there is no question that the MBTI has a strong appeal, based on both pragmatic and intuitive factors.

MBTI developed out of the interests of Katherine Cook Briggs (1875-1968) and her daughter Isabel Briggs Myers (1887-1980) in human personality difference. They both read Jung's *Psychological Types*⁶ shortly after its initial publication in English in 1923 and were prompted, at the outset of World War II, to try to 'operationalise' the typology that he set out. They thought that the construction of a psychometric indicator might, amongst other things, prove useful in addressing certain pressing

military personnel decisions faced at that time in the USA. Early forms of the MBTI testing procedure were thus developed in the period 1942-44, but it was after the war and in the years leading up to 1956 that more systematic research involving medical students, nursing students and other samples was conducted using the MBTI. Neither Briggs nor Myers had any formal training in psychology or statistics, so Myers' encounter with a young psychology research student named David Saunders in the early 1950s was significant in terms of the statistical enhancement and subsequent development of the instrument.

Although isolated researchers and clinicians showed some interest in MBTI as it continued to evolve during the 1960s, it was not until Consulting Psychologists Press included the Indicator in its publication list in 1975 that the approach became widely available and major commercial success ensued. Work on the development of the MBTI continues to this day, with scales within the test being constantly re-evaluated and refined. There are several psychologists associated with the approach: Naomi Quenk, Otto Kroeger and Linda Kirby are three notable figures, but the most significant contemporary advocate is Mary McCaulley, who, since meeting Isabel Myers and striking up a close working relationship with her in the late 'sixties, has been a vocal proponent of the MBTI. A membership organisation, the Association for Psychological Type was formed in 1979 and a research publication – *The Journal of Psychological Types* – established for those working primarily (although not exclusively) with the MBTI.

Precursors of MBTI

It is ironic that, although the MBTI is often presented as a form of 'scientific psychology' par excellence,⁷ its origins in Jungian personality typology⁸ result in MBTI unconsciously inheriting and reproducing theoretical and epistemological structures founded on astrological cosmology. As Jung's analysis of personality derives conscious inspiration from his active interest in alchemy and astrology,⁹ contemporary practitioners of this brand of psychometrics inadvertently find themselves conducting a form of astrological character analysis.

In what follows, we endeavour to show how the development of Jung's categorisation of psychological types reflects not only his fascination with quaternary in general but explicitly connects to the four elements of astrology. Jung's typology, in turn, forms the conceptual basis for the most widely used psychometric instrument currently in circulation in the business world, namely, the Myers Briggs Type Indicator (MBTI). This

genealogical investigation illustrates the astrological heritage of MBTI products, services and related academic research. Were the alchemical and astrological legacy lying at the conceptual heart of MBTI exposed and acknowledged, we suggest, it would be anathema to the discipline of scientific psychology with which this system is closely aligned. We begin our genealogical inquiry with a consideration of the four elements and a brief consideration of their place in the Renaissance astrological system. This overview is a precursor to examining Jung's own interest in Renaissance alchemy and the symbolism of its binary oppositions and quaternities.

A Brief History of the Four Elements

In a critical review of alternative cosmologies, John Rennie Short observes that, 'There is an astro-archaeology that underlies the contemporary rationalist world'.¹⁰ Perhaps this is unsurprising given the seminal part played by astrology in the development of what we now take for granted as the methods of rational scientific inquiry.¹¹ A central part of astrological technique is the use of four elements and four humours as an analytical and explanatory tool. This categorisation dates back at least to Empedocles and Hippocrates (both fifth-century BCE), with Claudius Galen (second century BCE) developing and preserving the conceptual quaternity, which held sway for some 1,700 years thereafter, finding its way into Arabic alchemy of the ninth and tenth centuries AD and being 'rediscovered' in the translated texts of the fifteenth and sixteenth century Christian alchemists.¹² For example, Marsilio Ficino (1433-1499) makes the following equations between bodily substance, element, quality, temperament and planets in Book I of his *Three Books on Life*¹³:

Substance	Element	Quality	Temperament	Planet
Blood	Air	Warm and Moist	Sanguine	Jupiter (always) Venus (sometimes)
Choler (Red or Yellow Bile)	Fire	Warm and Dry	Choleric	Mars
Black Bile (Black Choler)	Earth	Cold and Dry	Melancholy	Saturn
Phlegm	Water	Cold and Moist	Phlegmatic	Moon (always) Venus (sometimes)

Figure 1. Sixteenth century German woodcut, *Rosarium philosophorum*



We observe that little has changed in Ficino's fourfold arrangement of substance, element, quality and associated temperament since Galen's formulation. Indeed, in medical and psychological astrology the Galen cosmology survives to this very day.¹⁴

Alchemy and Jung

Any attempt to understand the role of the four elements in western thought generally, and in Jung's thought specifically, must acknowledge the role of alchemy - a study whose origins are less than certain. Aveni suggests¹⁵ that it is probably Alexandrian Greek in origin since it was in

Alexandria during the first few centuries AD that the art of ‘fusing or smelting’ together (*chyma*) ‘the black [soil]’ (*kême*) of Egypt was first practiced. It was not, however, until the latter part of the first millennium (c.800-1000 AD) that alchemy was embraced by Sufism and Hermeticism and began to blossom in the Middle East. The practice of alchemy may be understood as a precursor to modern chemistry insofar as alchemists were concerned to explore - through frequent and repeated experimentation - the property of materials and their chemical transmutation.¹⁶

This systematic exploration was motivated by the search for a material ideal whereby base metals might be transformed into gold – a quest which was seen as allegorical; outer material transformation mirrored inner personal transformation. It was a search for understanding of how the deepest meaning of life could be derived from quotidian experience. Jung’s attitude towards the subjects of alchemy and astrology was broadly sympathetic, and his interest in these pre-modern cosmologies informs his critique of modernity. Jung argues that ‘modern man’ (*sic*) has an inherent or instinctive need to pursue spiritually purposeful trajectories through life; a need that is fundamentally frustrated and denied by modern science, technology and the materialistic lifestyles to which they give rise. The search for the God-image is hardwired into the physiology of the brain and is part of an evolutionary inheritance¹⁷ and, as such, it must find expression through constructive, or if denied, destructive means. In his writings on alchemy and astrology he is in direct sympathy with the Renaissance proponents of these methods and considers the spiritual symbolism and meaning to have been lost in contemporary science including, of course, *psychological science*. A fundamental tenet of analytical psychology (and one reason why Jung fell out so badly with Freud over his ‘god-less’ psychoanalysis¹⁸) is that pursuit of the God-image is natural and healthy, and that its repression or denial is the source of much neurosis and psychosis in modern societies. Alchemy represented for Jung a science of spiritual and material integration: the search for the union of opposites and spiritual transcendence. Its symbolism attempts to invoke a state in which the inner human microcosm is undifferentiated from the outer macrocosm. Take, for example, Jung’s interpretation of the *Rosarium philosophorum*, a sixteenth century alchemical woodcut, as reproduced in Figure 1 above. The old German text beneath the image translates as, ‘We are the metals’ first nature and only source/ The highest tincture of the Art is made through us. No fountain and no water has my like/ I make both rich and

poor both whole and sick. For healthful can I be and poisonous'. Here is an extract from Jung's interpretation:

This picture goes straight to the heart of alchemical symbolism, for it is an attempt to depict the mysterious basis of the *opus*. It is a quadratic quaternary characterized by the four stars in the four corners. These are the four elements. Above, in the centre, there is a fifth star which represents the fifth entity, the 'One' derived from the four, the *quinta essentia*. The basin below is the *vas Hermeticum*, where the transformation takes place. It contains the *mare nostrum*, the *aqua permanens* or... the 'divine water'.¹⁹

He continues:

This structure reveals the tetrameria (fourfold nature) of the transforming process, already known to the Greeks. It begins with the four separate elements, the state of chaos, and ascends by degrees to the three manifestations of Mercurius in the inorganic, organic, and spiritual worlds; and, after attaining form of Sol and Luna... it culminates in the one and indivisible (incorruptible, ethereal, eternal) nature of the *anima*, the *quinta essentia*, *aqua permanens*, tincture, or *lapis philosophorum*.²⁰

As in the *Rosarium philosophorum*, the four elements feature prominently in many so-called *Annus-Mundus-Homo* (Year-World-Man) astrology diagrams of the Renaissance. Although not explicitly considered by Jung to our knowledge, 'Byrhferth's Diagram', pictured in Figure 2, is an exemplary representational form of the kind of holistic integration sought through astrology and alchemy – encompassing four elements, four temperaments, four seasons and four 'ages of man'. Jung was intrigued, some contend 'obsessed', by such quaternities not only in alchemical contexts but also in Buddhist mandalas and many other manifestations.²¹ To him, the quaternary was archetypal; a mythological motif that was 'always collective' and 'common to all times and all races'²² and it is with this understanding that we should approach the fourfold division of functions of consciousness that inform his psychological typology. As he explicitly states:

The quaternary is one of the most widespread archetypes and has also proved to be one of the most useful schemata for representing the

arrangement of the functions by which the conscious mind takes its bearings. It is like the crossed threads in the telescope of our understanding. The cross formed by the points of the quaternity is no less universal and has in addition the highest possible moral and religious significance for Western man. Similarly the circle, as the symbol of completeness and perfect being, is a widespread expression for heaven, sun and God; it also expresses the primordial image of man and the soul.²³

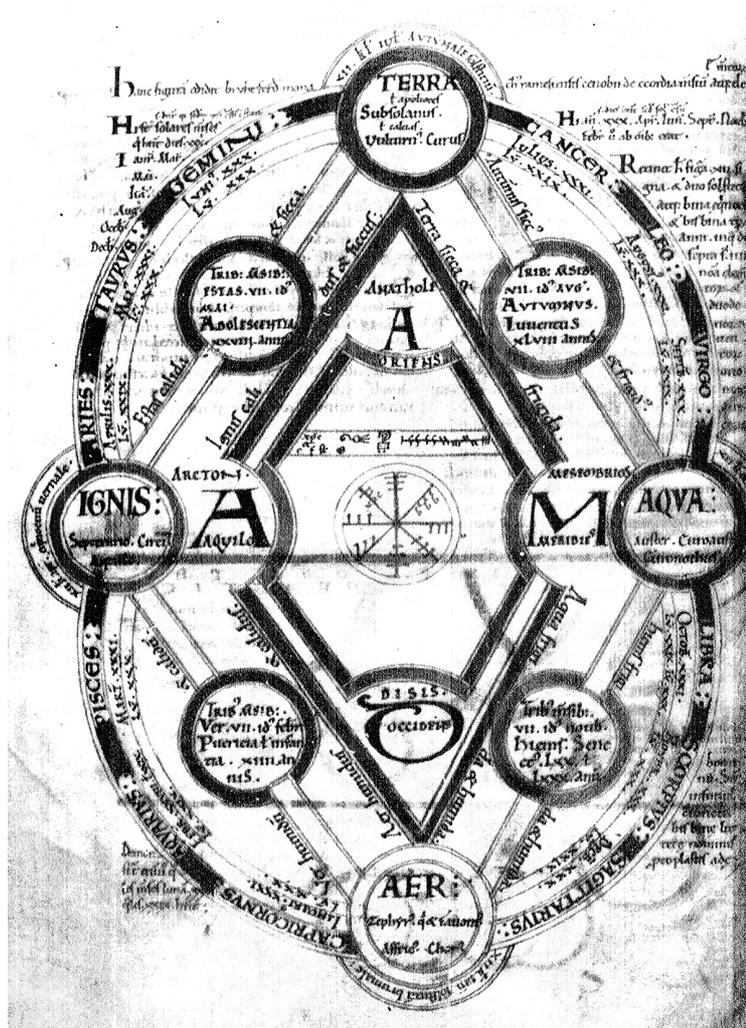
The Four Elements and Jung's Four Psychological Functions

It is in his detailed study of the works of the sixteenth century Swiss alchemist, Paracelsus, that Jung²⁴ makes the most direct comparison between the four astrological elements and his earlier work on the functions of consciousness and character typology.²⁵ We quote at length from the following passage since it provides pivotal evidence for the case we are making about the relationship between the psychological types inherited by MBTI and its alchemical/astrological origins. Jung refers to the last chapter of *De vita longa* (1562) in which:

Paracelsus makes almost untranslatable allusions to the four Scaiolae, and it is not at all clear what could be meant. Ruland, who had a wide knowledge of the contemporary Paracelsist literature, defines them as "spiritual powers of the mind" (*spirituales mentis vires*), qualities and faculties which are fourfold, to correspond with the four elements... The Scaiolae, he says, originate in the mind of man, "from whom they depart and to whom they are turned back"... Like the four seasons and the four quarters of heaven, the four elements are a quaternary system of orientation which always expresses a totality. In this case it is obviously the totality of the mind (*animus*), which here would be better translated as "consciousness" (including its contents). The orienting system of consciousness has four aspects, which correspond to four empirical functions: thinking, feeling, sensation (sense-perception), intuition. This quaternity is an archetypal arrangement.²⁶

We have traced one other moment in Jung's work where, in a discussion of Plato's *Timaeus* he equates the 'empirical functions of consciousness' with the four astrological elements.²⁷ In one passage he analyses Plato's character, suggesting that although he possessed a preponderance of fiery 'spirit' and 'airy thought' he was relatively lacking when it came to

Figure 2. Byrhferth's Diagram, 12th Century *Annus-Mundus-Homo*²⁸



connection with sensational reality and concrete action ('earth'). As Jung puts it, '[Plato] had to content himself with the harmony of airy thought-structure that lacked weight, and with a paper surface that lacked depth'.²⁹ Jung's equating of the earth element with 'concrete reality', of air with 'thought' and fire with 'spirit' in this analysis enables us to infer

the following relationships between the Jungian functions of consciousness and the astrological elements: thinking-air, intuition-fire, feeling-water, sensation-earth. This, incidentally, is the same alignment of Jungian function to astrological element as was arrived at by the astrologer and Jungian analyst Liz Greene.³⁰

An Astro-Genealogical Critique of the Myers-Briggs Type Indicator

Jung's work on *Psychological Types*,³¹ first published in 1921, is a work of considerable complexity and in presenting his typology - the two so-called 'attitude-types' and four 'function-types' - we do little justice to the 555 pages of reasoning that informs them. Nonetheless, for the purposes of this paper it is important that we set out Jung's own summation of the typology in order that it may be contrasted below with the narrative form and force of some selected MBTI research. So, according to Jung:

The attitude-types... are distinguished by their attitude to the object. The introvert's attitude is an abstracting one; at bottom, he is always intent on withdrawing libido from the object, as though he had to prevent the object from gaining power over him. The extravert, on the contrary, has a positive relation to the object. He affirms its importance to such an extent that his subjective attitude is constantly related to and oriented by the object.³²

And of the functions of consciousness and their corresponding types he observes:

The conscious psyche is an apparatus for adaptation and orientation, and consists of a number of different psychic functions. Among these we can distinguish four basic ones: *sensation*, *thinking*, *feeling*, *intuition*... Thus there are many people who restrict themselves to the simple perception of concrete reality, without thinking about it or taking feeling values into account. They bother just as little about the possibilities hidden in a situation. I describe such people as *sensation types*. Others are exclusively oriented by what they think, and simply cannot adapt to a situation which they are unable to understand intellectually. I call such people *thinking types*. Others, again, are guided in everything entirely by feeling. They merely ask themselves whether a thing is pleasant or unpleasant, and orient themselves by their feeling impressions. These are the *feeling types*. Finally, the

intuitives concern themselves neither with ideas nor with feeling reactions, nor yet with the reality of things, but surrender themselves wholly to the lure of possibilities, and abandon every situation in which no further possibilities can be scented.³³

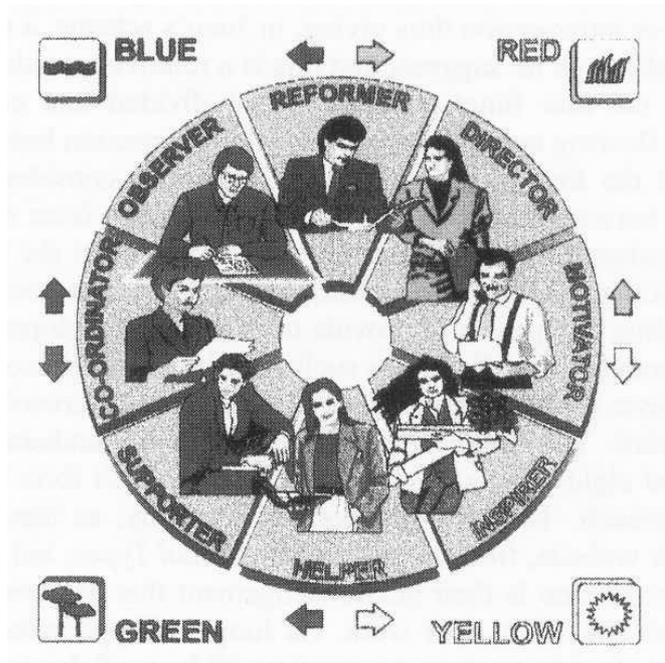
Each of these four function-types is mediated by an attitude-type of extraversion or introversion thus giving, in Jung's scheme, a minimum of eight types (although he suggests that this is a relatively crude matrix and that each of the four functions may be sub-divided into more refined categories³⁴). Bearing in mind the genealogical connection between Jung's typology and the four elements, it is interesting to consider the family resemblance between Figure 2 and a modern diagram from management science, reproduced as Figure 3. Figure 3 is taken from the literature of Insights Learning & Development Ltd, an international organisation used by many leading companies to provide training and development courses for staff. Amongst their clients are such familiar blue-chip companies as: British Airways; HSBC; Lloyds Bank; McDonalds; Microsoft; NatWest; and Royal Mail. The diagram represents the 'four fundamental colour energies', and eight resultant personality types, which form the basis of Insights' approach. This division derives primarily, as they explain in detail on their website, from Jung's *Psychological Types*; but particularly relevant to our theme is their acknowledgement that the lineage of four types stretches back from their work, via Jung, to Hippocrates' use of the four humours. In this modern incarnation, "Many of the world's finest companies are using Insights to develop a common language and to provide the skills necessary to excel in today's marketplace".³⁵ It would be interesting to contrast and compare this modern vision with that of the alchemist's 'holistic integration', as it would to investigate the points of similarity and divergence between the methodology of Insights and the MBTI. Either would exceed the brief of this paper, however, and since no detective work is needed in the case of Insights – they are clear about the fact that they are purveyors of a pre-modern understanding in the modern market-place – we return to our discussion of the MBTI.

MBTI and the Four Functions

Jung's typology of four function-types and two attitude-types was taken up by Katherine Cook Briggs and her daughter Isabel Briggs Myers in the post-war period and developed into the MBTI instrument. In their interpretation of Jung, they emphasised the distinction he drew between

the ‘rational’ functions of thinking and feeling - the way in which experience of the world is judged - and the ‘irrational’ functions of

Figure 3 – The 8 Primary Types of Insights Learning & Development Ltd.³⁶



sensation and intuition, in other words, the purely perceptive or phenomenological apprehension of the world. These two auxiliary functions Briggs and Myers refer to as ‘Judging’ and ‘Perceiving’ respectively. In addition to the dominant orientation of consciousness to its environment - the ‘superior function’ in Jung’s scheme - there is a secondary or ‘inferior’ function. This means that in the MBTI system there are *sixteen psychological types* resulting from possible combinations of (1) attitude-type: extraversion (E) or introversion (I), (2) superior function-type: sensing (S), thinking (T), feeling (F) or intuition (I), (3) inferior function-type: S, T, F or I, and (4) Judging (J) or Perceiving (P). Hence someone responding to the MBTI questionnaire or engaging in a process of guided self-assessment will arrive at a type for themselves that can be coded using combinations of four letters: ISTJ, ESTP, ENFP, INTJ and so on. It is important for our argument to note that the alchemical quaternary is still very much intact in this formulation.

Moreover, given our interest in astrology, we could not but notice the similarity between what are often called astrological ‘cook book’ descriptions, and the descriptions offered by Myers³⁷ for each of the types. Compare, for example, the following thumbnail description for an INTJ:

[INTJs] Have original minds and great drive for their own ideas and purposes. Have long-range vision and quickly find meaningful patterns in external events. In fields that appeal to them they have a fine power to organise a job and carry it through. Sceptical, critical, independent, determined, have high standards of competence and performance.

... with this ‘cook book’ Sun-sign vignette of the ‘Characteristic Aquarian type’:

[The Aquarian] Has strong ideals, humanitarian feelings, originality, and is a progressive thinker. Puts intense energy into a cause, but can be dogmatic and allow adherence to their own (often revolutionary and unorthodox) opinions to detach them from truths. Scientifically inclined, artistic, unpredictable, friendly, attracted to the unusual.³⁸

Our point in drawing this comparison is not to denigrate either cook book astrology or the MBTI but to suggest that what is being offered by both serves a similar purpose for their respective clients partly because they *share* similar cosmological and epistemological bases. There is no doubt that the motive underlying the MBTI is humanistic. Like Jung’s work it is designed to help people come to a greater understanding of themselves, their motivations (conscious and unconscious), personal needs and developmental potential. Just as Jung saw his psychological typology as a means for helping humans come to a greater understanding of the Other,³⁹ so too does the MBTI literature speak of enhancing human co-operation and mutual tolerance. Unlike Jung, however, whose psychiatric vocation meant he was dealing principally with psychotics and neurotics of various orders, the MBTI is intended for use by ‘normal, healthy people’.⁴⁰

Another point of comparison is the mystique the MBTI shares with astrology. The obscure and abstruse nature of astrological interpretation means that clients approaching an astrologer may be in high-mystical awe of the expert’s skill in interpreting the complex symbolism of the horoscope. They need guidance in interpreting the *meaning* of the various planetary positions, the conjunctions, oppositions, transits and so on. The

psychometrics of the various questionnaires and forms (designated 'F', 'G', 'G-Self-scorable, 'J' and 'K') perform a similar function in MBTI. Clients undergoing MBTI character analysis need the qualified help of the trainer or consultant to score and interpret the instruments to which they have responded. So just as the measurement technology of horoscopes is black-boxed by astrological symbolism, the operationalisation of concepts in the psychometric test is effectively black-boxed in MBTI. Both black-boxes – astrological charts and MBTI questionnaires - conceal an underlying calculus which is mystical from the client's point of view, and engagement with the respective technologies has *ritual* significance for all the parties involved. In the case of MBTI there is a considerable amount of academic research pursued in the name of validating and justifying the black-box in order that clients can be assured that the interpretation is scientifically credible.⁴¹ MBTI has been applied in numerous areas, including career management and counseling, team building, cross-cultural studies, leadership studies, psychotherapy and stress management to name but a few. Much of this applied research is empiricist in epistemological and methodological orientation. We would argue that this attitude is problematic in view of the astro-genealogy we have presented. Consider, for instance, the following extract from a comprehensive review of MBTI applications in management research. We have dipped into the text more or less at random with the intention of conveying the narrative tone of the work and its methodological preferences:

Part of the problem in validating the EI scale stems from the difficulty of developing criterion measures. Still, Thorne and Gough (1991) found that the ACL-EL cluster could serve as an observational measure of extraversion/introversion. This cluster correlates moderately and significantly with the MBTI-EI scale ($r = .32$ for males, $r = .40$ for females). Although many of the ACL extraversion items measure sociability (e.g., talkative, outgoing), others reflect an external focus (e.g., energetic, active). Moreover, while it is hard to observe an "inward flow of energy," the introversion items suggest an inner focus (e.g., reflective, preoccupied).⁴²

Interestingly, in this 39-page review of MBTI research very little space (two short paragraphs) is given over to the conceptual basis of the instrument. Neither is there any mention of 'people' in any integrated or rounded sense. Instead there is talk in generalities of free-floating,

abstracted coding of ‘types’ and measurement of fragmented social psychological disposition. This may seem reasonable given the espoused interests of the authors (to provide an overview of the ‘empirical’ research) until we consider their methodological conclusion, namely, ‘managerial research into type is mixed, with the experimental studies employing the strongest designs’,⁴³ and, ‘our critique of the management type studies identified many weaknesses, especially for those with descriptive designs’.⁴⁴ One wonders, then, what Gardner and Martinko make of Jung’s original contribution on typology since that is *entirely descriptive* in design and void of formal ‘empirical’ evaluation and evidence of the sort they might recognise or value. *Psychological Types* contains not a single correlation coefficient or tabular matrix and in it can be found no presentation of numerals outside a consideration of their symbolic (as opposed to literal) significance. Now consider that, as part of their review, Gardner and Martinko attempt to derive a number of propositions for which there is ‘strong statistical support’, giving the justification that ‘there is a need to develop theory in this area’.⁴⁵ The propositions are thus ‘derived’ from what they define as rigorous empirical research, are numbered P1-P20 and appear at strategic moments in their text. Proposition 14 reads as follows:

P14: Extraverted managers focus on the outer world of the environment, organization, groups, people and tasks; Is [Introverts – PC/GP] direct their energy towards the inner world of ideas, beliefs and values.⁴⁶

What did Jung say repeatedly about extraversion and introversion? To quote some typical remarks:

We speak of extraversion when [the patient] gives his whole interest to the outer world... and attributes an extraordinary value and importance to it.⁴⁷

Introversion means an inward-turning of *libido*... Interest does not move towards the object but withdraws from it into the subject.⁴⁸

The similarities between these statements and P14 are plain to see, and expose a problem in this approach. To state that ‘P14’ ‘derives’ from the extant empirical evidence is to fall into circular reasoning and self-fulfilling prophecy, for the instrument was *by definition* designed to ‘operationalise’ Jung’s concepts of psychological type. There are, we

therefore suggest, some empirical carts being placed before theoretical horses in approaches such as that of Gardner and Martinko.

Conclusion

We are no more ‘writing off’ MBTI than we are ‘writing off’ astrology, for both, as we have been at pains to indicate, share important cosmological and epistemological elements with which we sympathise. If serious consideration is afforded Jung’s analysis of quaternity then it may be that through its astrological/alchemical inheritance, as it were, MBTI taps into and partially addresses embodied desires for self-knowledge and spiritual fulfilment on the part of client audiences. What we would warn against is the danger of instrumental ‘distantiation’ and ‘effacement’⁴⁹ introduced by an overly empiricist approach to character analysis (astrological or MBTI). An empathetic attitude toward the subject is axiomatic in Jung’s work, and those who approach MBTI as technocrats rather than mediators might do well to remind themselves not only of the *relational* nature of his interpretative psychology but also the pre-modern philosophy that informs it.

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 8. CG Jung, CW6
 9. CG Jung, CW12, 13, 14
 10. John Rennie Short, *Alternative Geographies* (London, Prentice Hall, 2000)
 11. Charles Webster, *From Paracelsus to Newton: Magic and the Making of Modern Science* (Cambridge, University of Cambridge Press, 1980).
 12. For Empedocles see fragments 346, 347, 365, 388, Kirk, G.S.; Raven, J.E.; Schofield, M., *The Presocratic Philosophers* (2nd edition, Cambridge, London, New York etc., 1983), pp. 286, 299, 307. For Hippocrates see 'The Nature of Man' chap 1 (p. 7), chap 3 (p. 11), chap 4 (p. 11) and chap 7 (p. 19) in

Hippocrates, trans. W.H.S. Jones (Cambridge Mass., Harvard University Press 1923).

13. Adapted from Short op cit, p.28. See Ficino, Marsilio, *Three Books on Life*, ed. Kaske, Carole C. and Clark, John R., *Ficino, Three Books on Life* (The Renaissance Society of America, Renaissance Texts Series, Vol. II, Binghamton, 1989), Book I.

14. See, for example: Joseph Crane, *A Practical Guide to Traditional Astrology* (Orleans MA, ARHAT, 1997); Jane Ridder-Patrick, *A Handbook of Medical Astrology* (London, Arkana/Penguin 1990); Graeme Toby, *Culpeper's Medicine: A Practice of Western Holistic Medicine* (Shaftesbury, Element, 1997).

15. Anthony Aveni, *Behind the CrystalBall: Magic and Science from Antiquity to the New Age* (London, Newleaf, 1996) p.38-9.

16. CG Jung, CW12, 13, 14.

17. CG Jung, CW6, p.243.

18. See, however, the following sources for discussion of Freud's involvement with, and attitude towards, 'occult' subjects which show him to have been less dismissive than is often portrayed: Nicholas Campion, 'Sigmund Freud's Investigation of Astrology' in *Culture and Cosmos*, 1998, 2(1) p.49-53; Frank McGillion, 'The Influence of Wilhelm Fliess' Cosmobiology on Sigmund Freud' in *Culture and Cosmos*, 1998, 2(1), p.33-48.

19. CG Jung, CW16, p.203.

20. CG Jung, CW16, p.207.

21. Frank McLynn, *Carl Gustav Jung* (London, Black Swan, 1997) p.265.

22. CG Jung, CW6, p.443.

23. CG Jung, CW16, p.207-8.

24. CG Jung, CW13, esp. p. 167.

25. CG Jung, CW6, esp. pp 531-2.

26. CG Jung, CW 13, p.167.

27. CG Jung, CW11.

28. This diagram was constructed in the year 1110 by Byrhtferth, a monk of the abbey of Ramsey, and appears in a text he composed entitled, *De concordia mensium atque elementorum*, 'On the concord of the months and the elements', held in the library of St. John's College, Oxford (MS 17, fol.7v). For a full translation of the text, see: Peter S Baker & Michael Lapidge (eds), *Byrhtferth's Enchiridion* (Oxford, Early English Text Society, Oxford University Press, 1995); also worth investigating is an elaboration by Baker which can be downloaded at: www.engl.virginia.edu/OE/Editions/Decon.pdf; and comments on the structure of the diagram can be found in: Evelyn Edson, 'World Maps and Easter Tables: Medieval Maps in Context' in *Imago Mundi: The International Journal for the History of Cartography*, 1996, Vol.48, p.25-42. The authors would like to thank the President and Scholars of St. John's College for their kind permission to reproduce Byrhtferth's diagram in this article.

29. CG Jung, CW11, p.122-3.

30. Liz Greene, *Relating* (London, Coventure, 1977) p.61-84. For a detailed discussion of Jung's relationship to astrology, and the divergent ways in which contemporary astrologers have applied his ideas, see Maggie Hyde, *Jung and Astrology* (London, Aquarian/Harper Collins, 1992) – especially pp.105-10.

31. CG Jung, CW6.

32. CG Jung, CW6, p.330.

33. CG Jung, CW6, p.518-9 (original emphases).

34. CG Jung, CW6, p.523.

35. Insights website: www.insightsworld.com

36. This diagram is used several times in Insights' literature, for instance in presenting the 'Insights System' on their website: see www.insightsworld.com (consulted April 2001). The authors would like to thank Andrew M Lothian, Chairman of Insights, for permission to reproduce the diagram.

37. Myers, p.7.

38. Jeff Mayo, *Astrology* (London, Hodder & Stoughton, 1964/79) p.53-4.

39. CG Jung, CW6, p.489.

40. Myers, p.1.

41. Robert J Harvey, 'Reliability and Validity', in A L Hammer (ed) *MBTI Applications: A Decade of Research on the Myers-Brigs Type Indicator* (Palo Alto CA, Consulting Psychologists Press, 1996).

42. Gardner & Martinko, p.73.

43. Gardner & Martinko, p.55.

44. Gardner & Martinko, p.79.

45. Gardner & Martinko, p.56.

46. Gardner & Martinko, p.73.

47. CG Jung, CW6, p.500.

48. CG Jung, CW6, p.452.

49. See: Zygmunt Bauman, *Modernity and the Holocaust* (Cambridge, Polity Press, 1989).