

Extraversion – Introversion: what C.G. Jung meant and how contemporaries responded

Peter Geyer

Werribee, Australia

www.petergeyer.com.au

Extraversion and Introversion are the only terms amongst C.G. Jung's typological constructs that have passed into general discourse, albeit in varying interpretations. This paper examines what Jung wrote about this idea in English language publications and some responses of contemporaries in similar publications over a period of roughly thirty years. Jung's *The Association Method* article (1910) begins the period under examination. It is concluded by responses to Virginia Case's book *Your Personality—Introvert or Extravert* (1941). No publications of Isabel Myers or Katherine Briggs are examined. This period excludes the development of Jungian questionnaires by Briggs and Myers and Gray and Wheelwright in the early 1940s. This paper is a contribution to the history of ideas and does not comprise a review or exposition of Jung's *Psychological Types* and its contents.

*It seems a little surprising that a theory so technical and so specialised should have come to have so wide a currency.
That it has been so swiftly commandeered by many writers is a sign of its appositeness and its value*

T.M. Davie

The 30 or so years following 1910 were a period where the newly established field of psychology was developing as an independent discipline. There was a ferment of ideas and methods, argued articulately for the most part, by a wide range of people. Predominantly males, they were both classically educated and interested in contemporary science. Familiar with the ideas of the past, particularly philosophical ones about human nature, they were also investigating the implications of an evolutionary perspective to human development.

Many read and spoke French and German in addition to English; an important, perhaps essential attribute, given the European origins of many personality ideas. Europeans such as Jung were fluent in English. Books and articles produced by this group of people contained references to texts in all these languages, as well as ancient Greek, Latin, some Sanskrit and Chinese and copious Biblical references, the latter not an indicator of belief in the text itself..

This period is also important as the time Jung's core ideas were developed and proposed. They were also part of contemporary lay and professional discourse. His contemporaries respond to Jung in varying ways. Some, for instance, show an easy familiarity with his function types, a later development; others do not, or else simply dismiss it.

Reading Jung

Today, there are 20 volumes of Jung's Collected Works to examine as well as various interviews, seminars and so on. In this period, particularly before 1925, a limited amount of material written or presented by Jung was available to his contemporaries, particularly translations into English (Jung, ed. McGuire 1926/1989). Jung's 1913 paper, which introduces his idea of introversion and extraversion, is referred to at the time *via* a French translation, although it eventually becomes available in English in publications of collected papers. *Psychology and The Unconscious* appears in 1916 under a joint byline of Jung and his translator, Beatrice Hinkle, but is only inferentially a text that says anything about his typology.

Jung's *Psychological Types* appears in English in 1923, its German edition having been published in 1921. No-one contributing to the English language journals and texts I have been able to consult thus far refers to the German edition, which is quite surprising if it meant that no-one accessed the German text, an unlikely event.

Crichton-Miller (1933) and others reference *Contributions to Analytical Psychology* and *Two Essays on Analytical Psychology*, both published in 1928, the latter now available as CW7 and the former part of Jung's Collected Works. Other papers on psychological types, whether presented or published in collections, are part of the *Psychological Types* volume of the Collected Works (CW6).

Jung and the Types

Every conceptual formula is psychological in its essence

C.G.Jung

The Jungian writer and historian Sonu Shamdasani has explained that ideas about a psychological typology first surfaced in Jung's Association experiments; a method originating elsewhere (2009). Jung's 1910 paper on this topic identified *predicate* and *definition* types, those who respectively respond to stimuli emotionally or intellectually, well-defined or permanent.

Gardner Murphy's later research on *scientific* and *literary* types used the association method and referenced Jung's paper (1915). Jung's work in this area of experimental research was what brought him to professional attention and respect, even for those who could not follow him to his later ideas on typology and the unconscious. In this respect, his reputation was greater than that of Freud, in the early part of the 20th century and Jung took a professional risk in associating with Freud and his group.

Jung first presented on his idea of extraversion and introversion at the Psycho-Analytical Congress in Munich in 1913, to "a select and specialized audience" (Davie 1933), in the midst of personal and professional turmoil, the latter recently described comprehensively by George Makari (2008).

In many respects this presentation sealed and symbolised Jung's departure from the company of Freudian psychoanalysis and towards a path that could be more clearly defined as his own.

Jung's earliest English language journal publication discussing extraversion and introversion appears to be *On Psychological Understanding*, a presentation paper (1914). There, he discussed various issues before entering into a type exposition – identifying an extraversion type with hysteria and the introverted type with psychasthenia; two contemporary groupings of "nervous diseases."

He states his terminology depends on: "...my energetic conception of mental phenomena. I assume a hypothetical energy, which I designate as *horme*" which, related to Henri Bergson's *elan vital* is "an energetic expression for psychological values." Jung considers the latter "active and determining, so can be considered from an energetic viewpoint," and he prefers *horme* to *libido* as a label at this point (he changed his mind later), possibly because it was associated with Freud.

Jung had never accepted Freud's definition of *libido* as solely a sexual energy, and in introducing his typology in English he is also explaining his different perspective.

He goes on to finally say that, "The introverted type is characterised by the fact that he applies his *horme* chiefly to himself i.e. he finds the Unconditioned Values within himself, but the extraverted type applies his *horme* to the external world, to the object, the *Non-Ego*, i.e. he finds the unconditioned value outside himself. The introverted considers everything under the aspect of the values of his own *Ego*; the extraverted depends upon the value of his object." *Ego* and *Non-Ego* are not otherwise defined.

Cyril Burt observed elsewhere, at a later date, that Jung "uses the term [libido] in its original classical significance" (1918); Gordon considered Jung's perspective to be akin to Schopenhauer's *will* (1926). William McDougall preferred *horme*.(1935i).

In *Psychological Types* (1921/23), Jung begins by explaining that his book is for the "educated layman" and explains his original two-type formulation of extraversion and introversion before introducing the functions of thinking, feeling, sensation and intuition thus arriving at 8 types, a number not set in stone, but containing what he thinks is most important. In the process, he also explains that his original formulation associated introversion with thinking and extraversion with feeling. A chapter of definitions was also provided.

Jung also acknowledges that he consulted much historical and other material that isn't referred to in the book, contenting himself with a reference to Goethe in the introduction and a selection of other thinkers in the body of the book. He also makes it clear that he didn't do it all by himself as there were discussions with many colleagues on the typology as a whole.

Jung Reviewed

Extraverted and introverted Psychology are as different as day and night

C.G.Jung

A book review is often a valuable way to examine a text and the ideas of its author in the context of the topic under discussion. This is particularly so if the review includes any relevant breadth or depth of knowledge and insight that either the reviewer personally deems necessary, or is part of the brief given to the reviewer by an editor.

Cyril Burt expansively reviewed Jung's *Psychology of the Unconscious*, in this way (1918). He identified the book as a work on the psychology of religion, discussing its contents in this context. This includes noting two kinds of thinking set out by Jung in "phantastic" and "directive" and makes an analogy with William James' "associative thinking" and "reasoned thought." These ideas appear not dissimilar to what was arrived at later as *sensation* and *intuition*.

Burt also compares these two kinds of thinking with Freud's ideas of the *Reality Principle* and the *Pleasure Principle*. He finds several other comparisons or "duologies", mostly from English thought (his own cultural and intellectual background), but also elsewhere.

The statistically-oriented Burt writes that "It would be of great interest to investigate how far such types—or rather tendencies are correlated with one another and with Jung's fundamental distinction of intro-and extra-version."

William Malamud similarly reviewed Jung's *Psychological Types* from the perspective that human behaviour relates to differences in "reaction," then common terminology in psychological thought (1924). Describing the book's contents, he notes that "Jung digs into the mechanism of types rather than the description of them" and so is "not a study of character, but of mechanism."

As for the author himself, Malamud observed that "the stamp of Jung's own type is quite definitely seen in his work...especially noticeable in the description of the thinking introvert, which reads more like a plea for the justification of one's actions than a purely objective presentation of a type."

Malamud thought the types were more or less rigid, tending to the extreme. For him, Jung's work pointed to a solution, rather than providing one, noting that Jung made no claim to have all the answers. He concluded that these ideas would have "especial value to psychiatry," in realising that others have their type peculiarities, including the psychiatrist.

Elmer Culler's review of *Psychological Types* described Jung's types but expressed some unease with the means of delivery of the ideas (1924). The "elaborate symbolism in many parts of the book was much against my palate," he wrote.

He could "apprehend what he [Jung] is trying to say and convey it into my own ways of thinking," but didn't want to critique Jung's work: "His major ideas are coming into general knowledge and are being reduced to experimental form."

Nonetheless, Culler didn't think Jung was all that scientific and that extraversion and introversion were as "limited and temporary value as a division into tall and short humans."

William White, also reviewing the same book, described it as being a "consistent attempt to place psychology on an energy basis" (1924). He explained Jung's idea of *libido* not as a specific force but as a "concept of intensity of value," with the two attitude types "distinguished by direction of general interest or libido movement. Only the relative predominance of the one or the other determines the type."

White explained the function types clearly and saw Jung as developing his own direction through "concepts Jung has evolved himself or those of others which he uses in a special way...The individual, for Jung, is no mere mosaic of static patterns, but the container of ceaselessly flowing energy as constantly created differences of potential seek equilibrium."

Jung's Professional Followers or Expositors

None of the above reviewers could be considered followers or proponents of Jung. In the professional and popular domains, there were people who associated themselves with his ideas, or had been analysed or trained by him, but who also had their own perspective.

Beatrice Hinkle, a translator of Jung, developed her own typological ideas using Jung's extraversion-introversion as a base but keeping a Freudian, or at least a sexual, perspective. A clinical exposition of extraversion-introversion is explicated in a journal article of 1919, with her developed view involving 6 types appearing in a lengthy article (1922) and subsequently her book *The Re-creating of the Individual* (1923) in which she acknowledges that Jung has further developed his idea, and that her approach is different.

Max Freyd commented on Hinkle's *schema* in saying she identified introversion with femininity and divided introversion and extraversion into 3 groups: objective, simple, emotional/subjective. The objective extravert or introvert had little feeling or intuition (as defined) whereas in emotional introverts and subjective introverts the subjective or emotional factor is strong (1924).

Floyd Allport, coming from a perspective of Freudian and behaviour psychology, reviewed Hinkle's book and couldn't accept "her sweeping endorsement of innate ideas." He considered the work of Jung and Hinkle to be inadequate regarding the causal aspect of behaviour, as it favoured "inheritance rather than infantile experience."

In this vein, he commented that "according to Dr Hinkle, the psychological type is the causal factor behind the conflict in the neurotic; but according to the viewpoint just advanced the conflict is the cause of the development of the psychological type."

Allport thought the origin of extraversion and introversion "still remains a fascinating mystery." He acknowledged that Hinkle had made "substantial contributions" in the book, mostly along "sexual lines"

J.H. van der Hoop produced two texts in the period under investigation which discussed psychological type (1923; 1939), the latter of which was a key reference for Isabel Myers in her work.

Character and the Unconscious, published in English in the same year as *Psychological Types*, is an attempt to examine and synthesise the views of Jung and Freud. Van der Hoop writes regarding Jung's psychological types that "in contrast with Freud's typical forms of failure, he [Jung] is concerned with typical ways of sublimation."

Extraversion and Introversion are briefly discussed before the function types are introduced and explained.

Shine (1924) thought "the interesting question of the classification and description of psychological types is dealt with in a chapter which is, unfortunately, so diffuse as to be tiresome." The Freudian psychoanalyst James Glover questioned van der Hoop's qualifications to be a psychoanalyst at all (1924), whilst Crichton-Miller thought his book "deserved more attention."

In *Conscious Orientation*, van der Hoop states that "Dr. Jung's classification of types has found only slight acceptance...partly to be ascribed to its vague and insufficiently systematic description" but also that Jung includes the unconscious as a source for mental phenomena rather than simple observation (1939), something the author seeks to remedy *via* his own interpretation and descriptions.

As an aside, he offers an opinion that Jung prefers introverted thinking with sensation.

In a kind of corroboration of van der Hoop's view that Jung's typology has received slight acceptance, Silverberg, in reviewing the work, brusquely dismisses it, finding it confusing and improbable and not having value for the clinician (1942).

Popular Jung

Jung has given us "introversion" and "extraversion," and Adler "the inferiority complex."

Grace Adams

Whatever the level of knowledge the person in the street might have had about Jung's ideas, it's clear that the terms introversion and extra(o)version swiftly became part of the public domain.

The Freudian **James Glover** stated "Jung's type classifications contain an element of judgement which has caught the popular fancy and enriched the vocabulary of domestic recrimination (op.cit)."

William Stephenson noted some years after Glover that "introvert and extravert" have "slipped into everyday language," even if it wasn't really known whether they really existed (1939).

A.A. Roback breezily observed in 1931 that introverts and extraverts had been universally accepted into a convenient mode of "separating the individualistic, more or less shut-in type from the social, talkative and usually more superficial person."

Contemporaneously, **Grace Adams**, in a general book on the veracity, or otherwise, of personality ideas. concurred with Roback's observation. Somewhat cynically, she wrote that "basing his observations not only on neurotics but upon two of the world's most famous psychologists, Jung has devised his theory of introversion and extraversion." Other aspects of Jung's ideas are met with "surely, for many hundreds of years, the adjective "empirical" has served psychologists well, but never quite so fantastically as when Jung applies it to his weird, unconscious ghosts" (1931).

In the same year, *American Types* described itself as a contribution toward "the awakening of a new and positive American self-consciousness." Its author, the poet **James Oppenheim**, focused on "The American Race," giving an overview of the ideas of Freud, Adler and Jung, favouring the latter and adding masculine and feminine components and somewhat racy descriptions to his typology (1931).

Educationally, it was also possible around this time to undertake an adult education course in Chicago that explained Jung's ideas and his typology in the instructional format typical for that kind of enterprise (Mikesell and Dignan, eds.1933).

Earlier, the ubiquitous "educated layman" was the focus for a slim volume written by **Joan Corrie** called *ABC of Jung's Psychology* (1927). The author was a self-described "pupil of Jung" who had attended his seminars in Zurich in 1925. A chapter "The Mind and Its Functions" placed extraversion and introversion in the context of the functions according to Jung's later formulation. Diagrams from Jung's then unpublished lectures were included, and his perusal of the text prior to publication was acknowledged.

Joan Evans used a formulation (possibly originating from Wilhelm Wundt) of "quick" and "slow" in action, identifying two kinds of introverts and extraverts in *Taste and Temperament* (1939), an application of psychological type to the field of art. She didn't claim any scientific or philosophical rigour, so perhaps the book appealed to a specific part of the general public interested in art, more particularly the type of artist rather than the genre of art.

Virginia Case looked to the "general public" and correcting "current misunderstandings" (1941). Like Corrie's work, this is stated as both read and approved by Jung. Unlike Corrie, she focuses on introversion and extraversion, with chapters on experience, groups, marriage and developing ambiversion. "Quick and Slow" appears here as well, suggesting some affinity with Evans' work.

Reviewing Case's book, **Nolan Lewis** (1943) thought that this kind of thing was perhaps better left to experts. Most psychiatrists were familiar with Jung's typology, which was "some help." A "certain residual of these concepts which were more fashionable a few years ago than at present has found a place in our thought and work on personality construction and mental disorder."

Although the ordinary person might find it interesting and become more tolerant of others. Lewis remained concerned that "mind functions [are] stated as facts while they are still highly controversial and in stages of thought provocation."

The Originality of Extraversion – Introversion

No extensive study of human nature as it is about one or as it is analyzed and described in English literature is necessary to convince one that there are people who live more within themselves than in the busy world of activity.

Edmund S. Conklin

Jung's 1914 paper referred to the types of William James, Schiller, and the philosophical perspectives of *nominalism* and *realism*. *Psychological Types* mentions others, notably Furneaux Jordan, and Otto Gross, the latter being the source of the terms he used.

Collier and Emch (1938) are amongst others in observing that Jung doesn't claim originality for the coining of the terms introversion and extraversion, whether in his earlier or later work (1938). They also state they will use Jung's spelling in "extraversion" throughout except where quoting directly from others who use "extroversion," without explaining anything about the origins of this difference, which may be a translation, typological, or cultural foible, earlier use, or simply lack of concentration.

Brown, referring to Jung's French article, notes "Jung traces a common thread running through several attempts at a dual classification of types" and the "tendency of some minds to direct their interests inward upon themselves (introversion) while others turn outward (extraversion) (1914)."

Max Freyd (1924) identifies tender-minded-tough-minded and explosive and obstructed wills from William James, as well as Baldwin's sensory-motor types, the latter based on Ribot's *social* (extraversion) and *mechanical* (introversion).

Guilford and Brayly add Stern, Klages, Kurella and Heysman, in an extensive list of comparable ideas (1930). White mentions Goethe's *diastole* and *systole*, and William Blake's *prolific* and *devouring*, amongst others (1924).

Crichton-Miller, in a text on psycho-analysis aimed at a general audience, goes further by specifically identifying *Character as seen in Body and Parentage* by Furneaux Jordan, recommended to Jung by Constance Long in 1913 (1933).

Notwithstanding Jung's consistency in acknowledging his sources, his originality was a topic that generated some heat. **June Downey** thought that extraversion and introversion were much like the distinction between *motor* and *sensory* types (1924) and "left much to be desired as scientific concepts" (1926). This didn't stop her canvassing members of the American Psychological Association to rate themselves on the topic at the same time as completing a survey on handedness (*ibid.*).

The responses provided a confusion of definitions and understandings including:

- rejection of the constructs altogether
- refusal to self-classify regardless of knowledge or affinity
- imposed limitations such as restricting its use to abnormal psychology

The sardonic Roback finds "introverted mind" in Emerson, and "extroversion" in M.E. Lazarus, without addressing whether the relevant works were accessible to Jung (1931). He provides the same information less bluntly, with a wealth of other material and much insight, in an earlier book (1927), but there is an overall implication that Jung should have read more widely (names and texts supplied).

William McDougall mentioned in passing that Jung's "words had been used in similar senses by much earlier writers" (1935ii).

Floyd H. and Gordon W. Allport call extraversion-introversion a "valuable distinction derived from Freudian Psychology and first made clear by the writings of McDougall and Jung" and that it "has within recent years opened up a remarkable vista for the understanding of humanity" (1921).

Type Analogies: Interpreting and identifying Extraversion-Introversion

A man may be introverted towards his religion, but extraverted towards his garden

R.G. Gordon

As has been shown in the previous section, a natural feature of examining a newly presented idea is understanding it *via* the use of already available terms, or constructs. Whilst potentially useful, the constructs may look the same as far as observable behaviours and the like are concerned, but their presuppositions may be quite different.

Guilford and Brayly (op.cit.) reported White as considering that introversion was abnormal and pathological, allied to regression, rather than the process of individuation, which he would associate with extroversion. White saw introversion as regression to an earlier way of thinking, a similar idea to Conklin's criticism of Jung for leaving out a hierarchy of development i.e. higher and lower types etc.. While there appeared to be a consensus that introversion and extroversion are a result of inherited predispositions; White thought that no-one seemed to have considered the glandular view i.e. a person introverted because of personal experience.

Riggall, reviewing Ikin, writes that "a predominance of ego over sex instincts" would be for Jung introversion over extroversion, or "introvert and extrovert reactions," and that "introvert-extrovert conflict appears to be that existing between narcissistic and conflict libido" (1924).

Coriat, in a presentation interpreting Kretschmer's types in the context of libido theory, used Jung's extroversion and introversion as explanations of the turning inward and outward of libido (1926). Edward Mayer challenged this view in the session itself, considering Kretschmer's ideas to be a different plane of thought to Jung's ideas, so that introversion-extroversion does not neatly fit into his types. Kretschmer himself, in a textbook on medical psychology, observed "empirically, then, part of the sociological behaviour-patterns are most closely bound up with such temperamental qualities, especially the fundamental leaning towards an 'extroverted' (Jung) or an "autistic" (Bleuler) attitude to life, and the qualities which depend on these" (1934).

Gordon W. Allport thought that testing for Ascendance and Submission (self-defined) showed parallels with extroversion-introversion (1924) and that the latter, like other traits, could be defined:

- as independent, statistical variables,
- as either a hierarchy of integrated specific habits, or a dynamic trend of behaviour resulting from such a hierarchy, or
- as a habitual mode of adjustment governing specific responses (Guilford, Brayly, op.cit.)

Max Freyd thought types were born, not made, as did McDougall (Freyd op.cit).

Some provided definitions e.g. Allport and Allport, who wrote:

Extroverts are "the strong type of personality" with a tendency for "narrow and strong emotions; "Introverts are "the weak type of personality" with "broad but superficial emotions."

Laird offered that:

Introverts are characterised by their emotional outlets being expressed mostly within themselves; Extraverts are: characterised by expressing emotions in action and associating with others.

Bernreuter stated: Introverts are imaginative and tend to live within themselves. (Allport and Allport op.cit.)

McDougall thought "Introverts are those in whom reflective thought inhibits and postpones action and expression; Extroverts are those in whom the energies liberated upon the stirring of any propensity flow out freely in outward action and expression" (1935i)

Werner, writing on Stern's *Personalistics*, also stated that "the differentiation into *autistic* and *hereristic* types of character shows some analogy to Jung's typology (introversion-extroversion) and therefore to all pre-scientific typologies of this kind *subjective-objective*, *sentimental-naive* etc." (1938).

Commenting on Jung

The important idea about a type is that it possesses a firm centre, but not hard and fast boundaries

Ernst Kretschmer

E.S. Conklin thought Jung's psychological types was the "most audacious and brilliant of contemporary schemes," but criticised it because there was nowhere to fit in "mixed or imperfect types" and that Jung had "an ever-present notion of repression." "Everyone who has read his volume recalls how inadequately this is carried out and how incomplete and unsatisfactory are his explanations of the abnormal" (1924).

He wrote: "We have, I fear been a little myopic. When considering a case of morbid introversion, we have been prone to see only the need for extroversion. When considering a case of morbid extroversion we have only seen the need for the balancing introversion, and that none too often"

Conklin called for a systematisation of concepts and their meaning, possibly as part of a psychology of attention.

Earlier, he had seen extroversion and introversion as normal, but posited there are also *ambiverts*. These people were by far the most normal and healthy people, because the healthy mind was flexible (1923).

This idea of ambiversion, without the use of the title, was endorsed by Roback who wrote "It should be noted that the majority of people go to make up a third class, viz., the less differentiated normal man, the source of whose motivation can scarcely be determined offhand, as his introversion or extraversion is not sufficiently accentuated" (1927).

Conklin later proposed four dimensions of personality (1924):

- Extroversion-Introversion
- Intelligence
- Noetic (which appeared to be similar to Jung's sensation-intuition);
- Moral.

He then reported on his research, which showed that individual differences in extraversion and introversion were "not of type, but of degree," and that people developed into an extrovert or introvert, rather than being one or the other to start with. He also thought research should first be conducted into normal extroverts and introverts, notwithstanding "the detection of abnormality is highly desirable" (1927).

Guilford and Brayly comment that Conklin later concluded introversion and extroversion were "distortions of thought" and either flights from reality or flights into reality (op.cit).

E.B. Miller, in a slim volume focusing on constitutional types, stated that "to extrovert is a function—an activity of all human beings. To even the most subjective types, the call of the external world is constantly being made and is frequently being answered. But in such types as are here being discussed, the activity of extroverting is the activity which achieves satisfaction and emotional rapport."

In his view, the vast majority of the human family were normal. There are other extroverts who don't appear to be extroverts, and his phrase "utter introversion" sounded quite negative. He identified introversion with a schizothymic type, and being syntonic (1937).

Miller also thought that Jung's classification, by splitting the mind into faculties, "lacks the dynamic quality which a proper appreciation of life demands" and that Jung "justly realised that this broad dichotomy was in itself inadequate to explain the variations found within the groups."

William Marston, whose ideas later became a core of the DiSC model, quoted Jung with approval, but regarded introversion and extroversion in terms of feeling: as a matter of inhibited emotional expression, with perhaps skeletal origins (Guilford and Brayly; Gilliland op.cit.)

G.W. Allport commented that "Marston speaks of introversion and extroversion as emotional *traits*, and then lists twenty *traits* of introversion and twenty of extroversion (1924)."

Ramsey Hunt preferred “excitation” and “inhibition” as fundamental processes of neural functioning, whilst **Collier and Emch** pointed out that associating introversion with neurosis, as many did, was a Freudian standpoint, and not one endorsed by Jung (op.cit)

R.G. Gordon thought that “the attitude which the introvert would take is more difficult to describe because our language does not lend itself so easily to this type of thought.”

He observed that Jung now defined introversion and extraversion as attitudes, not types. Gordon attempted to explain them in physiological terms. In an articulate exposition of the types he suggested, using evolutionary presuppositions, that there were higher and lower types, namely the superiority of the rational types to the irrational ones.

This is what was meant by others suggesting a developmental approach to the types (1926).

William McDougall considered introversion and extroversion important, but not the ‘faculty’ oriented functions. For him, Jung’s ideas accordingly needed simplification; they also implied that “inexpressiveness is associated with a high degree of egotism,” which displeased him. (1935i op.cit).

McDougall’s approach to introversion and extroversion (“outstanding” according to Guilford and Brayly) related to the nervous system, otherwise “chemical,” and he considered an individual may move towards extroversion by alcohol ether, chloroform and similar drugs; towards introversion by strychnine, morphine, caffeine and so on (1929)

Irving Bender reviewed J.W. Bridges’ *Personality Many and One* and noted the author “seems particularly impressed with Jung’s chief dichotomy of extraversion and introversion” in a book “not intended to be profound, but is forthright and closely knit together” (1934).

T.M. Davie observed (1939) that “a theory of such undeniable importance” such as Jung’s types hadn’t received much critical attention from professional psychologists, perhaps because of Jung’s psycho-analytic background and contemporary status, but also because his “theories have a peculiarly thought-baffling quality,” notwithstanding Jung is “a patient expositor” and that there was “not a term that he does not illustrate and interpret.”

He thought that part of this had to do with Jung’s idea of the unconscious and so he proceeded to divide Jung’s typology into its *early theory*, as “a technical theory of libido movement explanatory of the phenomena of two forms of mental disorder“ and a *final theory* “in its general connection as a theory of psychological types applicable to humanity at large”

Davie discusses Jung’s early theory in considerable depth in clinical terms, evaluating its plausibility and comparing it with ideas from Kretschmer, Klages, Freud and so on. For instance, he referred to Freud as stating it is “the deflection of the libido away from the possibilities of real satisfaction and its excessive accumulation upon phantasies” (p252).

He comments that very many writers ignore the fact that Jung made extensive alterations in his *early theory* to arrive at his *final theory*. Examining the latter, Davie questions whether a function or attitude is more important, and considers the distinctions between functions to be difficult, making some cogent points.

Davie finds himself unable to “understand fully this theory of opposed psychological functions” but his message is essentially that it’s not as simple as even some declared users think.

So he nonetheless considers Jung’s approach valuable, dismissing McDougall’s criticism of the functions and depicting Jung as an introverted intuitive, with the intuitive the most important part, and his work being packaged in an “admirable English presentation.”

Testing and related Research

Devising an introversion-extraversion scale does not necessarily clarify any of the issues involved in the extraversion-introversion problem

Heinrich Klüver

The field of testing appears not to have been initially a fruitful area for personality constructs in this period, although this changed over time, sometimes with the same people involved. Usually when people write of being “scientific” in this period they mean some kind of experimental method involving some kind of observation, or statistical method, including pencil and paper tests.

Jung regularly self-described both as a scientist and an empiricist, but he did not have this kind of science or empiricism in mind: the central European perspective was quite different.

Floyd H. and Gordon W. Allport wrote that “differences of personality are a qualitative rather than a quantitative sort” and that their “aim was personality study and description rather than personality testing” (1921). Curiously, they then proceeded to report on research using measurement of a group of identified traits, including “Extro-Introversion.”

In 1924. Collier and Emch (op.cit.) pointed out that Jung did not intend his idea to be measured and suggest that numerical scores do the very thing Jung was against i.e. engage in pigeon-holing.

Gordon W. Allport reported on a test developed for what he called Ascendance-Submission (1928). Ascendance was dominant when in face-to-face groups; others may be submissive or yielding. The question was asked whether this kind of behaviour was associated more with Extroversion-Introversion – as Extroversion correlated “suggestively” with Ascendance. Allport then inferred that perhaps both traits were manifestations of a general underlying factor, for example a trait of a still higher order (1928). The notion of traits was still quite contentious at this point, unlike today when they are more accepted, although still challenged by some.

Max Freyd reported that “the theory of introversion and extroversion has opened up an interesting field of speculation, but as yet it has failed almost wholly to attract the experimenter” (op.cit). He thought that the related theory had to be expressed more consistently, and with more attention to experimental evidence. Theoretical distinctions in this case had conventionally been made between reality, social reality or the social environment

Freyd wrote that there was “strong criticism which the term “types” has received at the hands of statisticians and psychologists” but provided no reference. “If we assume that types are characterised by having a certain amount of any one ability or combination of abilities, then we should expect each type to be differentiated from other types on the distribution curve of the ability or abilities in the general population... We may conceive of the distribution curve as attenuated by two opposing forces, and as a person is subject to one or other of these influences, he will score to one or the other side of the central tendency. Extreme individuals at the ends. Or they may be conceived as hypothetical individuals who do not exist viz. Weiniger’s absolute male and absolute female.”

He constructed a list of questions related to Introversion-Extraversion, for research purposes.

Edna Heidbreder (1926) commented on Freyd’s list and sought to discover whether these 54 traits, selected on the basis of psychological insight, were able to identify significant differences between the most introverted and most extroverted individuals in a group. Her sample was of 900 students, later reduced to a gender-equal random sample of 200; she acknowledged the limitations of the sample on that basis i.e. other students elsewhere, other cultures etc. The research involved a self-rating and associate rating. There was a slight indication of bimodality in the distribution, but because Heidbreder thinks that’s a chance result, she identifies introversion and extraversion as extremes.

In her discussion, Heidbreder referred to Tansley’s view that extroversion is “a more primitive level of behaviour” as well as White’s opposite contention. She also observed that introvert tendencies may be really more common than they seem, but are not given expression in social situations.

Freyd's list worked for Heidbreder, but there was no real evidence that the groups differentiated were extroverts and introverts. Her conclusion was that introversion and extraversion are not distinct types. The central tendency favoured extroversion; however the normal reaction might not necessarily be a perfect balance between introversion and extraversion, but rather a tendency in one direction or the other. Another observations was that Individuals tended to rate themselves as more introverted than their associates judged them to be.

In a later article (1928) Heidbreder commented that Marston had found girls more liable to introversion than boys and that Laird had found introverts to be much more marked in women than in men: results that were quite different from hers.

The same list was used in Marston's research, but scored differently. There was little gender difference between extraversion and introversion. Certain sex differences appeared but gender and sex differences in temperament and introversion-extraversion differences were independent variables. These results naturally depended on whether Freyd's list was a good measuring device.

Katherine J. Campbell (1928) decided to test insane people. She operated on the general presumption that introverts would tend to be dementia praecox and extraverts manic depressive. She applied the same test as Heidbreder (slightly amended) to a group of individuals diagnosed as being insane Campbell thought any insane person could take the test.

This sample was selected on the basis of high school graduation to make it comparable to Heidbreder's undergraduate sample. The ratings weren't as clear because of the insanity of the sample, and the physicians used as observers not always being sure of the traits of the individual being observed. Guilford and Guilford later questioned the usefulness of these tests with insane individuals, particularly given that the tests are usually aimed at college students (1934).

May, Hartshorne and Welty (1929), in one of an annual series of articles reviewing tests, refer to the work of Jaensch who describes the biotypes (i.e. bodily) T and B as being comparable to introversion and extraversion respectively, noting their reaction to galvanic and mechanical irritability. They note that many of these tests under review require the response "Yes-No." Cribbers were found to be more extroverted, relatively less intelligent and more psychoneurotic than the campus average.

Guilford and Brayly described these and other tests and their results, suggesting that "a number of studies have indicated that there is a physiological basis for these traits, or for traits of a related character. They concluded that there was considerable agreement regarding the existence of introversion-extroversion, and some agreement about definition, as there were different emphases:

- Direction of interest
- Emotional expression
- Social expression

Tests have largely focused on the latter, but have unsatisfactory reliability (1930)

Gilliland and Morgan (1932) acknowledged the difficulty of developing personality tests as well as dissatisfaction with them, particularly "the use of such crude criteria as rating scales and the personal opinions of testers and others for the validation of tests."

Their solution was to test for extremes and write approvingly of Woodworth's psychoneurotic inventory – an "attempt to study the degree of mental stability in individuals," which others had used as a basis of typological classification. Accordingly, they used a test validated on insane individuals (Neymann and Kohlstedt 1929) and applied it to student groups with apparent success.

Gilliland later investigated several well-known tests of introversion-extroversion and concluded that "if any one of these tests measures [them] satisfactorily, with one possible exception, none of the others measures the same thing."

Possible reasons given were:

- The tests aren't reliable (high reliabilities were shown)
- The test authors might not define introversion-extroversion in the same way
- The test items may accordingly be dissimilar
- Items may be scored differently

They found high reliabilities, "considerable" commonality regarding definitions and test topics and that scoring methods varied widely. Accordingly, they concluded that for these tests to have general respect, some agreement was needed on the last three points in particular and much more care taken in test construction (1934).

Guilford and Guilford (1934) followed on from Guilford and Brayly (op.cit.) developing a short test of their own, extracted from reading Jung and adapting Freyd's popular list, in the "usual" Yes-No format, which they nonetheless thought was less than accurate, as it assumed each person was:

- a good judge of their own behaviour
- not self-deceptive regarding self-defence or wish-fulfilment
- given the above, would tell the truth about themselves

The hope was that an approximation was provided. Although they liked McDougall's physiological theory, they acknowledged that his test wasn't in general agreement with many others, so didn't use it. Factor analysis was applied to the results. The most important of the factors derived were:

- *a* – a tendency to shrink away from or fear the environment
- *b* – an emotional sensitiveness to the environment
- *c* – impulsiveness
- *d* – interest in self

a seemed to be probably what most writers mean by introversion.

c may be what McDougall had in mind.

They suggest from these results that personality is "an extremely multidimensional affair."

Stagner and Pessin observed that one of the major problems in personality test construction was the selection of valid and reliable items (1934). Their study aimed to determine objectively the diagnostic value of introvert-extravert items used in current personality tests i.e. how well test items differentiated between extraverts and introverts according to Jung's original ideas.

By amalgamating various tests, they came up with 140 items on themes of likes/dislikes and personal preferences. They suggested that the subjective determination in an introvert, as contended by Conklin, was simply a lowered threshold for subjective as opposed to objective experiences. The introvert was "characterised by his attention to his own emotions, motives, and trains of ideas...he is absent-minded because his attention is not focused on the world of external reality." Evidence also didn't support the identification of emotional instability with introversion.

Moore and Steele conducted research using 6 personality tests. The study was highly critical in general, particularly of the Yes-No method, the authors stating that "no test can be of much value unless a more graded form of answering is offered." They suggested introversion was just a stage young people go through and queried the worth of researching it. One test was described as "disappointingly uninteresting" (1934).

Raymond B. Cattell contended that descriptions by types and by traits do not constitute two distinct methods, but rather extremes of the same statistical procedure (1937). He divided types into *continuous* and *species* types. In continuous types, one type passes over into another without any sharp break., and this was where the great majority of psychological types fitted e.g. introversion-extraversion.

“A single source trait...properly delineated, understood and measured, will enable us to predict a surprising amount about a given person,” he wrote. Indeed, “The success of fashionable typologists, such as Jung’s Introversion-Extraversion labels, which have sometimes monopolized the thought of injudicious psychologists, has been possible only for this reason.”

Earlier, in 1934, Cattell had referred to physiological experiments identifying *surgent* and *desurgent* types, Introverts were a mixture of *desurgent* and *perseverative* and the surgent type was the core of the loosely defined extravert type also described as social and emotional. These types were distributed on a normal distribution curve.

Ethel M. Abernethy (1938) agreed with Woodworth’s suggestion that introversion-extroversion” tests deal with more than one dimension of personality. An *extrovertive* person, according to conventional description, is one who enters with interest and confidence into social activities of the direct type and “has little liking for planning or detailed observation.” An *introvertive* person was “below the general average in social inclination and above the average in liking for thought.”

Frank N. Freeman’s book *Mental Tests* included an examination of tests of extroversion-introversion (1939). He noted that “many psychologists have made selections of symptomatic forms of behaviour and put them into the questionnaire or rating form. It may perhaps be questioned whether a satisfactory analysis can be made by the use of these inventories except in the hands of a competent clinician, but in such hands they are useful.”

Freeman also described an introvert as one who “limits his acquaintances to a select few, is suspicious of the motives of others, indulges in self-pity when things go wrong, gets rattled easily, day dreams, talks to himself, keeps a diary, is absent-minded, and so on...” He lists 5 tests, all from the late 1920s.

Catherine Evans and T.R. McConnell pointed out that different introversion-extroversion tests were measuring different things e.g. Laird and Marston emotional and affective reactions; Conklin thinking-intellectual for introversion, overt activity for extroversion; Freyd the social; and the measurement of extreme behaviour for others (1941).

They continued on to say that “none of the inventories published before 1940 has consistently displayed a degree of reliability sufficiently high for individual prediction.” Their own study used components of Thinking, Social and Emotional and the consequent development of three questionnaires based on these constructs. Brief descriptions for thinking, social and emotional introverts and extroverts were provided.

They followed two criteria suggested by Jung:

Firstly:

- the introvert was more oriented to or governed by subjective factors and
- the extrovert was more oriented to or governed by objective conditions.

Secondly:

- the direction of the response of the introvert turns inward
- the extrovert turns outward towards the object.

They found a gender distinction on Extroverted Emotion.

Some of the issues associated with measuring personality constructs that are presented in this time period have dissipated with better definitions and methods.

Others may continue on, such as whether the descriptions of the constructs under investigation are biased towards ideas of ideal human performance, a particular middle-class or higher educated experience, as well as the regular conundrum surrounding university undergraduates as a research sample, and whether they represent the psychology of the community as a whole.

Debates about Theory: Are there types etc.

*Psychological happenings require psychological explanations...
a physiological explanation is no explanation at all*

T.M.Davie

In an article on traits and personality that mentions introversion and extroversion, but not Jung. **Gordon W. Allport** (1927) argued for a more consistent definition of *trait* as a useful term in understanding personality.

Guilford and Brayly (op.cit) identified extroversion and introversion as a “single pair of traits of personality” and noted that they have been “slowly stripped of the poetic terminology which has been used to describe them, and brought within the reach of experimental methods.” Many writers “regard the traits as hereditary in nature” against little proof either way, and opinions varied on the advisability of a change in preference for introversion or extroversion, imposed or otherwise, on the person concerned.

Heinrich Kluver observed that progress was minimal as far as understanding personality type (sic) went, despite “thousands” of publications on personality type (sic).” He suggested this had arisen because not enough attention was paid to theory, to the extent that the work of many investigators was quite irrelevant. So it was important “the issues involved in the study of personality types...be clearly stated...such “theorizing” will be more fruitful than busily “collecting data”” (1931).

He presented reasons for people assuming types don’t exist:

- Identifying “summit points and central tendencies in a frequency curve” and changing them into “types.” This kind of thought had led to the assumption of distinct “races.”
- Looking at extreme cases in a distribution. Many attempts have been made to consider such extremes as “types.”
- Being concerned with “relationships, between certain traits, attitudes etc.” and not single frequency distributions. Correlations were useful for traits, but not for types.
- “Typification” i.e. the “typical” Englishman, minister, officer etc., similar to how the philosopher Georg Simmel looked at ways of behaving typically.

For an adequate investigation of types, Kluver suggested that the reasons given for their types by Jung, Rorschach, Jaensch, Kretschmer, Spranger etc. be examined; he demonstrated that they all focused on one or more essential or fundamental characteristic and summarised key points:

- “The “types” as used in modern psychology represent dynamic systems with specific modes of interaction”
- In some cases, these modes are hypothetically assumed, requiring subsequent research for verification.
- Methods for verifying the type depend on the nature of the fundamental characteristic so “neurology, sensory physiology, or biochemistry etc may be used.”
- “The fact that certain types are inconsistent with empirical findings does not imply that “types” must be discarded, it may merely call for a modification of the type proposed.”
- “Types...can never be arrived at by mere collecting of data, but by working them up from certain angles.”

Herbert Shuey wrote comprehensively about the impact on psychology of what is still called the “new science,” particularly given that it “has always attempted to found a science along the lines of physics,” notably regarding measurement methods (1934).

He thought that this new scientific situation required “the abandoning of the quantitative ideal, and a return to the study of direction rather than contents,” and an abandonment of the idea that individuals are all the same. He contended “Jung’s types, however important they are in other respects, are phenomenological and cannot be used as a continuum, since they also lack a biological structural basis.”

Shuey suggested that the “time” component was critical for a study of types, “without which [they] are arbitrary and lack continuity.” Current personality tests were also based on “the social attitude” rather than the libido or psychic energy of Jung.

Criticism was also levelled at “static measurement” and “attempts to correlate static features with dynamic traits” which Shuey considered “confuse the form and contents of the personality,” something he thought Kretschmer was addressing. So there was a need for psychologists and educators in the future to “standardise the observer, not the tests” a practice which he considered was followed in medicine.

This article was followed with a 1937 paper in which Shuey examined how typologies “are to become scientific. There must be some fundamental basis for grouping individuals, otherwise chaos will reign instead of order.” Typologists have been practical men (i.e. medical men and psychiatrists) not people like psychologists (identified as being impractical) who have been accusing practical men of being unscientific and subjective, but have taken a narrow focus and been slow in investigating a philosophical or biological basis for them.

William Stephenson (1939) proposed that a statistically-based method “which tries to take account of the highly ramified ways in which introversion-extraversion subserves a personality” should be utilised in order to do justice to Jung’s thought, notwithstanding “Jung...has nowhere formulated these tendencies mathematically...even to suggest to him that his mode of thought could be represented mathematically might stir up at most a smile of condescension.”

This method was looking further afield than Jung’s book (somewhat curiously called *Type Psychology* in the text). Stephenson appeared to think Jung had 5 constructs, the “arch-types” of introvert-extravert, and the functions thinking, feeling, sensation and intuition, which he calls “sub-types.” An Appendix lists 11 presumed types (Jung’s eight function types and *general extravertive*, *general introvertive* and *unconscious*) derived from a random selection of 176 traits taken from a much larger list extracted from *Psychological Types*. Stephenson’s statistical method was based on factor analysis. His definition of *type*: “any number of persons [can be regarded] as persons of one type if their inter-correlations satisfy the theorem of two factors, one factor being common to each trait and the other specific to each.” followed Charles Spearman, the inventor of *g*.

Conclusion

The period under examination in this study, appears as fertile and perhaps volatile. It was a time in which many approaches were taken to the idea of introversion-- extra[*o*]version, with a variety of interpretations. Much the same relevant core material appeared to be consulted, read selectively and differently, depending on individual interests and presumptions. Sometimes, as happens today in this and other fields, scant attention was paid to Jung’s words and speech on the topic

However, the difficulty of understanding Jung’s constructs, was also regularly expressed, even amongst those who admired Jung’s work. The paradoxical nature of these particular terms entering the public domain was noted, even accounting for Jung’s stated aim of reaching the educated non-professional, although what was made of his work by this putative group is essentially unknown.

In this period, many comments were made regarding the utility or otherwise of applying research methods from experimental psychology, particularly measurement, to what could be made of Jung’s constructs. This included issues of selecting the right data for examination and the right precepts for items and descriptions. There was also some debate as to what kind of science was relevant for psychological investigations of this kind.

Interestingly, many of these issues and interpretations continue to the present day, sometimes in the same form, other times in another guise.

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