

“The author asserts that type dynamics is a conceptually tangled construct with little empirical support, is the source of many problems, and should be discarded.”

The Case Against Type Dynamics

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ABSTRACT

The type dynamics model of psychological type was examined and criticized from several perspectives. Problem areas include the following: Type dynamics has persistent logical problems and is fundamentally based on a series of category mistakes; it provides, at best, a limited and incomplete account of type-related phenomena; epistemologically, type dynamics is not based on efficacy or the preponderance of the evidence but is strictly a method that assigns individuals to type dynamics groups or categories while offering little explanatory power; type dynamics is thoroughly confounded with its Myers-Briggs Type Indicator® (MBTI®) content or composition; type dynamics relies on anecdotal evidence, fails most efficacy tests, and does not fit the empirical facts; and finally, it is doubtful if type

dynamics is Jungian. The empirical record is inconsistent with type dynamics and often contradicts it in ways that are fatal for the construct. Type dynamics—in any form—does not organize the data in an orderly fashion that corresponds with the facts, because type dynamics is a conceptually compromised construct that lacks coherence. Preference multidimensionality was presented as a theoretical alternative to type dynamics that organizes the relevant data in an orderly fashion that corresponds with the facts. Orderliness occurs when research untangles the confounding that is natural to type dynamics and when we recognize that E–I points to E–I and J–P points to J–P—not to E–I.

Note: For the Myers-Briggs Type Indicator® (MBTI®) instrument, the eight preference categories are the following: Extraversion (E) versus Introversiion (I), Sensing (S) versus Intuition (N), Thinking (T) versus Feeling (F), Judging (J) versus Perceiving (P).

INTRODUCTION

It is the customary fate of new truths to begin as heresies and to end as superstitions. —THOMAS HENRY HUXLEY

Festinger, Riecken, and Schachter (1956) began their classic *When Prophecy Fails* as follows:

A man with a conviction is a hard man to change. Tell him you disagree and he turns away. Show him facts or figures and he questions your sources. Appeal to logic and he fails to see your point.

We have all experienced the futility of trying to change a strong conviction, especially if the convinced person has some investment in his belief. We are familiar with the variety of ingenious defenses with which people protect their convictions, managing to keep them unscathed through the most devastating attacks. (p. 3).

So too it is with the type community and its popularly held, but empirically unsupported belief in type dynamics.

Type dynamics refers to the hierarchical ordering of Jung's functions (Sensing, Intuition, Thinking, and Feeling); the identification of this order as the Dominant, Auxiliary, Tertiary, and Inferior functions; and the expression of these functions in the Extraverted and Introverted attitudes. According to theory, the Jungian functions represent opposite perceiving (Sensing or Intuition) and judging (Thinking or Feeling) processes that must be differentiated in order to provide focus and direction for any individual. From this perspective, there are opposite attitudes for expressing the functions (Extraversion and Introversion), with each type expressing the dominant function in its preferred attitude. Similarly, there are opposite attitudes (Judgment and Perception) for dealing with the outer world, i.e., that determine which functions are extraverted.

Myers (1962) introduced the rudimentary elements of type dynamics. More recent editions of the *MBTI Manual* (Myers & McCaulley, 1985; Myers, McCaulley, Quenk, & Hammer, 1998) have made frequent reference to type dynamics and the "dynamical character of type," emphasized the enabling role of the J–P preference pair, and developed the concept more fully.

The emergence of the construct "type dynamics" was not based on empirical data and the results of disciplined, rigorous research. Rather, the justification for type dynamics lies with statements of Jung (1923/1971) and his identification of a principal or dominant function and a secondary or auxiliary function where,

"besides the most differentiated function, another, less differentiated function of secondary importance is invariably present in consciousness and exerts a co-determining influence" (p. 405). In similar fashion, Jung noted that "Experience shows that the secondary function is always one whose nature is different from, though not antagonistic to, the primary function" and that "For all the types met with in practice, the rule holds good that besides the conscious, primary function there is a relatively unconscious, auxiliary function which is in every respect different from the nature of the primary function" (p. 406).

Because the dominant and auxiliary processes are *in every respect different*, Myers (Myers, 1962; Myers & Myers, 1980) reasoned that the dominant and auxiliary processes provide balance, that one must be extraverted and the other introverted, and one must be for a perceiving function, either S or N, whereas the other must be for a judging function, either T or F (McCaulley, 1999). Myers further claimed that the MBTI instrument, through the J–P preference pair, provided a method for determining these dynamical relationships, a method that the *MBTI Manual*, in revision, continued to endorse. Although Myers' original presentation of this method was sketchy, the method for forming and identifying type dynamics categories was described in detail in later editions of the *MBTI Manual* (Myers & McCaulley, 1985; Myers et al., 1998) and elsewhere (e.g., Brownsword, 1987, 1988; Quenk, 1992, 1993).

Brownsword (1987, 1988) elaborated on an approach to type dynamics that was previously introduced by Grant (Grant, Thompson, & Clarke, 1983), provided a general framework for conceptualizing type dynamics within the framework of the MBTI measure, and identified three rules for forming type dynamics categories. First, Js extravert their judging function, T or F, but introvert their perceiving function, S or N. By contrast, Ps extravert their perceiving function, S or N, but introvert their judging function, T or F.

Thus, type dynamics uses J–P as a "pointer variable" in which the J–P preference pair identifies how someone prefers to deal with the outer world, i.e., which functions are extraverted. This use of J–P is categorically different from the other MBTI preference pairs but is central to the issue of how type dynamics groups are formed. Second, for Es the extraverted function is dominant and the introverted function is auxiliary. By contrast, for Is the introverted function is dominant and the extraverted function is auxiliary. Third, the opposite

of the dominant is the inferior, which is introverted if the dominant is extraverted but extraverted if the dominant is introverted. Similarly, the opposite of the auxiliary is tertiary, which is introverted if the auxiliary is extraverted but extraverted if the auxiliary is introverted. From this perspective, both the dominant and tertiary functions occur in the preferred attitude and the auxiliary and inferior functions in the less preferred attitude. The *MBTI Manual* (Myers & McCaulley, 1985; Myers et al., 1998) outlined a similar set of rules except that only the dominant function operates in the preferred attitude, whereas the auxiliary, tertiary, and inferior functions are all expressed in the less preferred, opposite attitude. Hereafter we refer to this view as the *Manual* model.

Type dynamics is central to type theory, is considered the core of the MBTI typology (Lawrence & Martin, 2001; Pearman, 1992; Quenk, 1993), and appears to be widely accepted. Unfortunately, type dynamics not only has little empirical support, but is rife with incorrect and misleading theoretical reasoning. In fact, type dynamics can be criticized at many levels. Specifically, the problem for type dynamics includes these areas: Type dynamics has fundamental logical problems because at its foundation it is a category mistake (Ryle, 1949); it provides, at best, a limited and incomplete account of type-related phenomena; it is strictly a method but is certainly not a theory; type dynamics is thoroughly confounded with its MBTI content or composition; it relies on anecdotal evidence but does not fit the empirical facts; there is an alternative to type dynamics that is unaffected by these issues and easily accounts for all established empirical relationships; and finally, it is doubtful if type dynamics is even Jungian. At the same time, the type community has aggressively and uncritically promoted type dynamics and has resisted constructive debate of its merits. In the remainder of this paper, each of these points will be developed and elaborated further.

TYPE DYNAMICS IS A CATEGORY MISTAKE

Colloquially, we understand category mistakes by the expression “mixing apples and oranges” and know intuitively that to do so is logically improper. Category mistakes are endemic within type dynamics.

Myers’ (1962) introduction of the MBTI measure provided an objective instrument for identifying four pairs of dichotomous preferences, Extraversion-Introversion (E-I), Sensing-Intuition (S-N), Thinking-

Feeling (T-F), and Judging-Perceiving (J-P) that were then combined into a four-letter summary of each individual’s preferences. This combination of preferences provided the type classification for 16 different types, e.g., ISTJ or ENFP, that are included in the familiar MBTI type table and the first column of **TABLE 1**. In this sense, the MBTI measure describes four dimensions of personality and the additive effects (the 16 types) of these dimensions. At this level of analysis, Myers provided impressive empirical support for each of the preferences and documented the independent character of each MBTI preference category. Importantly, from this perspective the J-P preference pair has independent meaningfulness and equivalent status relative to the E-I, S-N, and T-F preference pairs (Reynierse, 2000a).

Myers’ (1962) discussion, however, emphasized the dynamic relationships of the preferences, an approach that is categorically different from the straightforward, independent nature of the individual preference pairs, particularly the J-P and E-I dimensions. Most importantly, Myers provided no evidence for this interpretation, a deficiency noted by Mendelsohn (1965) in his review of the MBTI instrument. Myers assumed that the J-P dimension identifies how someone prefers to deal with the outer world, i.e., which functions are extraverted, but then provided no evidence for the “pointer variable” role of J-P. In this sense, although Myers had validated the individual preferences, Myers’ interpretation was directed at another unvalidated methodology and a different set of typological categories.

The 16 types identified by Myers’ (1962) dynamical interpretation occur only when extraversion, introversion, and the dominant and auxiliary processes are combined with the four functions. These 16 dynamical types, summarized in **TABLE 1**, show little resemblance to the 16 MBTI types that occur through the direct, straightforward combination of the four preference pairs. They are categorically different, and it is a category mistake to equate them (Ryle, 1949). The 16 dynamical types are *category mistakes* because, using Ryle’s language, Myers “represented the facts” (of the MBTI type relationships) “as if they belonged to one logical type or category” (the arrangement of dominant and auxiliary functional relationships) “when they actually belonged to another” (the straightforward, MBTI preference types) (Ryle, p. 16). Myers’ dynamical types are not *legitimate or logical types or categories*, simply because they were presented then (1962) and continue to be

Table 1. The Sixteen Types and Their Straightforward MBTI® and Dynamical Interpretative Meanings.

MBTI® Type	Straightforward Interpretation	Dynamical Interpretation	
ESTJ ESTP	E + S + T + J E + S + T + P	Dominant Thinking extraverted Dominant Sensing extraverted	Auxiliary Sensing introverted Auxiliary Thinking introverted
ESFJ ESFP	E + S + F + J E + S + F + P	Dominant Feeling extraverted Dominant Sensing extraverted	Auxiliary Sensing introverted Auxiliary Feeling introverted
ISTJ ISTP	I + S + T + J I + S + T + P	Dominant Sensing introverted Dominant Thinking introverted	Auxiliary Thinking extraverted Auxiliary Sensing extraverted
ISFJ ISFP	I + S + F + J I + S + F + P	Dominant Sensing introverted Dominant Feeling introverted	Auxiliary Feeling extraverted Auxiliary Sensing extraverted
ENTJ ENTP	E + N + T + J E + N + T + P	Dominant Thinking extraverted Dominant Intuition extraverted	Auxiliary Intuition introverted Auxiliary Thinking introverted
ENFJ ENFP	E + N + F + J E + N + F + P	Dominant Feeling extraverted Dominant Intuition extraverted	Auxiliary Intuition introverted Auxiliary Feeling introverted
INTJ INTP	I + N + T + J I + N + T + P	Dominant Intuition introverted Dominant Thinking introverted	Auxiliary Thinking extraverted Auxiliary Intuition extraverted
INFJ INFP	I + N + F + J I + N + F + P	Dominant Intuition introverted Dominant Feeling introverted	Auxiliary Feeling extraverted Auxiliary Intuition extraverted

presented, in a logically illegitimate fashion. The operations or rules for establishing type dynamics categories are of a different sort and violate the operations used to validate and document the straightforward MBTI preference type relationships. Type dynamics is thus fundamentally flawed, because it confiscated the facts from a legitimate set of categories and then inappropriately applied these facts to another set of categories where they do not belong (Ryle).

The logical problems of the J–P preference pair were identified previously by Lowen (1982), who noted that the “P versus J preference required different interpretations for extraverts and introverts” (p. 49). Similarly, Lowen rejected Myers’ use of J–P as not being a true dichotomy because a

“true dichotomy must be equivalent to a symmetrical partition into two subsets in such a way that neither subset contains a pair of elements with opposite attributes. P versus J (as used by Myers) violates this rule, because, for example, IN is the exact opposite of ES (as S is the opposite of N, and I the opposite of E) and yet both are contained in P. Therefore P versus J is not a dichotomy” (p. 49).

Lowen then concluded that “this is an absolutely fundamental aspect of the dichotomous model” (p. 49). Lowen’s argument, like Ryle’s (1949), is concerned with the unambiguous identification of categories and the logical necessity of separating different categories, i.e., identifying their operational differences.

With the commitment to arrange and interpret the MBTI preferences according to the operations of type dynamics and the “pointer variable” role of J–P, type theory makes additional category mistakes. The attitudes, E and I, and the functions, S, N, T, and F, are category mistakes whenever their operations and interpretations depart from the straightforward, independent nature of the individual preference pairs. In this sense, the MBTI preferences and types, arranged according to type dynamics and given the dynamical interpretation identified in columns three and four of **TABLE 1**, are fundamentally category mistakes.

That type dynamics has persistent logical problems and is fundamentally based on a series of category mistakes has serious consequences for type theory. First, preoccupation with type dynamics not only emphasizes erroneous type categories but also diverts attention from additional, legitimate type categories.

Second, the category mistakes of type dynamics produce serious confounding that must be identified for any research-based efficacy tests of type dynamics theory. Both issues are addressed in greater detail below.

TYPE DYNAMICS PROVIDES AN INCOMPLETE ACCOUNT OF TYPE PHENOMENA

When reading the literature on type dynamics, one can easily get the impression that type dynamics is a “theory of everything” that opens the door to explaining and understanding human personality in all of its complexity. For example, Quenk (1992) observed:

No matter how we think about type dynamics, it is the critical feature of type theory which makes “the whole *greater* than the sum of its parts” and gives the MBTI its potency as a system of explanation. It permits understanding and assessment of a very broad range of human characteristics, from everyday attitudes and behavior to complex unconscious processes. It also provides insight into personality development over the lifespan. In short, were it not for the dynamics of type, the MBTI would likely be a mere footnote in the history of personality testing (p. 5)

Quenk’s observation unnecessarily raised the stakes for type theory and failed to recognize the limits of type dynamics. Granting temporarily both the adequacy and accuracy of type dynamics as theory, type dynamics would still be a flawed and incomplete theory. This is the case because type dynamics is limited to the MBTI relationships of Jungian functions (S, N, T, and F) and attitudes (E and I). At best, type dynamics addresses eight sets of MBTI Pair relationships. At best, type dynamics provides an overly simplistic solution to the problem of human diversity and complexity. Despite Quenk’s endorsement, type dynamics provides a limited—not comprehensive—view of psychological type.

Recognition of the independent status of the individual preferences—all eight of them—also provides the potential for an expanded typology that includes many additional type categories or forms (Reynierse, 2000a). There is a natural symmetry that emanates from the preference pairs and the dichotomous nature of type. Based on type symmetry, the individual preferences can be combined directly to form 24 pairs, 32 Triads, and the conventional 16 four-letter types (Reynierse 2000b, 2000c). In each case, these forms represent true dichotomies in which individual forms are partitioned

into separate subsets, which never include their opposites (Lowen, 1982). In each case, these forms can be logically derived and demonstrated by a truth table, contingency table, and the counting rules of probability theory (e.g., Hays, 1963; Lowen). The additive nature of the preferences and their combinations stand on their own merit and need no further justification. **TABLE 2** illustrates these additive relationships for the 24 pairs.

Type symmetry further implies that the individual preferences are independent parameters that can be exercised in any order. Recognizing order effects (Lowen, 1982) and preference multidimensionality (Reynierse & Harker, 2008a, 2008b) expands type categories even further. For example, Reynierse and Harker show that two or more MBTI preferences are often necessary to describe type effects and relationships. Within these multidimensional relationships, individual preference relationships can be primary, secondary, or equivalent. For example, the descriptor “Dominant” is a TE item in which “T” is primary whereas “E” is secondary. By contrast, the descriptor “Persuasive” is an ET item in which “E” is primary and “T” is secondary, and the descriptor “Assertive” is an E=T item where the contribution of E and T are equivalent (Reynierse & Harker). The preference multidimensionality composition (or content) for the descriptors “Dominant,” “Persuasive,” and “Assertive” is presented in **TABLE 3**. Preference multidimensionality in its most basic form—at the level of the Pairs—

Table 2. The 24 MBTI® Pairs With Order Effects.

IJ JI I=J	IP PI I=P	EP PE E=P	EJ JE E=J
ST TS S=T	SF FS S=F	NF FN N=F	NT TN N=T
SJ JS S=J	SP PS S=P	NP PN N=P	NJ JN N=J
TJ JT T=J	TP PT T=P	FP PF F=P	FJ JF F=J
IN NI I=N	EN NE E=N	IS SI I=S	ES SE E=S
ET TE E=T	EF FE E=F	IF FI I=F	IT TI I=T

Table 3. MBTI® Preference Multidimensionality Content for Three Illustrative Lexical Descriptors With Their Significant *r*-values and Difference Scores (d.s.).

Descriptor	Preference Relationship	E-I		S-N		T-F		J-P	
		<i>r</i>	d.s.	<i>r</i>	d.s.	<i>r</i>	d.s.	<i>r</i>	d.s.
Persuasive	(ET)	.19	.33	-.13	.25	.08	.14	—	—
Dominant	(TE)	.11	.26	—	—	.23	.43	—	—
Assertive	(E=T)	.21	.43	-.11	.20	.23	.42	—	—

expands the number of type forms to 72 potential Pair categories (TABLE 2), and an almost limitless variation within each category. Many of these type relationships have been confirmed empirically (Reynierse & Harker) but are denied by type dynamics.

TYPE DYNAMICS IS STRICTLY A METHOD

What exactly do we know when type theory invokes type dynamics either descriptively or as an explanation? What is the scientific basis of type dynamics and the extent to which type dynamics includes an established body of knowledge that describes causal and lawful relationships (e.g., Bunge, 1963; Casti, 1990)? Or from an epistemological perspective, to what extent are the “truths” asserted by type dynamics supported by the preponderance of the evidence, or, alternatively, reflect mere opinion, i.e., they are asserted but without a basis in evidence or reason (e.g., Adler, 1981, 1985; Russell, 1912/1968)? Does our knowledge of type dynamics meet the exacting standard of certitude and immutability of the truth, or must these criteria be relaxed because there is an element of doubt and evidence is lacking (Adler)? Alternatively, our supposed knowledge about type dynamics may in fact be contradicted by the facts and evidence, casting doubt on our “knowledge,” falsifying it, and requiring that we revise our theory (Popper, 1934/1959).

What are the facts and how do they fit the type dynamics conceptual framework? Have type researchers reliably demonstrated a hierarchical arrangement of the dominant, auxiliary, tertiary, and inferior functions? Does the evidence support the “pointer variable” role of J–P in which the J–P preference pair identifies how someone prefers to deal with the outer world, i.e., which functions are extraverted? Is there evidence to support the type dynamics rules about the expression of the functions in the extraverted or introverted attitudes? Are some func-

tions expressed in the preferred attitude, whereas others are expressed in the less preferred attitude? Have longitudinal studies demonstrated the lifespan and type development sequences predicted by type dynamics? The problem is that type dynamics does not deal with facts, because type dynamics lacks an empirical foundation.

The statements of Jung noted earlier reflect Jung’s clinical experience and are *untested observations*—not evidence. Rigorous, systematic studies are necessary to test the efficacy of these statements and validate them. Hypotheses regarding these statements as generalized for type dynamics need to be clearly stated so that they are testable and refutable.

As noted earlier, when Myers (1962) introduced her ideas about the dynamics of type, she provided no evidence for this dynamical interpretation. Later descriptions of type dynamics included a “known set of phenomena” that were fundamental and distinctive to type theory but also were not supported by research evidence. Grant et al. (1983) introduced a model of type dynamics as part of a theory of type development in which both the dominant and tertiary functions occur in the preferred attitude and the auxiliary and inferior functions in the less preferred attitude. Although it was noted, “admittedly it calls for further testing by experience” (p. 3), this was not accompanied by any cited research, and in the intervening 25 years this deficiency, to my knowledge, was never corrected. Brownsword (1987, 1988) elaborated on Grant’s approach to type dynamics and provided a general framework for conceptualizing type dynamics within the framework of the MBTI measure. But like Grant, he assumed that the legitimacy of type dynamics was self-evident and provided no independent, objective evidence for its efficacy.

The second edition of the *MBTI Manual* (Myers & McCaulley, 1985) developed type dynamics more fully and provided an alternative view to Grant and

Brownsword. In the *Manual* model of type dynamics, only the dominant function operates in the preferred attitude, whereas the auxiliary, tertiary, and inferior functions are all expressed in the less preferred, opposite attitude. But again, no research evidence was provided to support this interpretation.¹

Quenk (1992, 1993) provided a detailed account of type dynamics including a system for identifying and understanding these dynamics for each of the MBTI types. She also made a particularly interesting statement:

There are many ways of discussing the interaction of dominant, auxiliary, tertiary, and inferior functions—the dynamics of typology. We may use metaphors, such as the dominant as the captain and the auxiliary as first-mate; or Isabel Myers' (1980) analogous description of “the general” and his “aide.” We can focus on Myers' hypothesis that the auxiliary provides balance between the critical mental processes of perception and judgment as well as the extraverted and introverted attitudes. We can apply Jung's theory of psychic energy, which sees the dominant function as most fully under our conscious control and having the lion's share of psychic energy, while the auxiliary, tertiary, and inferior functions have decreasing amounts of energy. (1992, p. 5)

Quenk's only concession to evidence and the empirical record was a brief reference to unpublished research by Wayne Mitchell.

Quenk (1993) expanded her analysis of type dynamics and identified “qualities” associated with each dominant and each inferior form of type dynamics. For example, she identified “inner harmony, economy of emotional expression, and acceptance of feeling as non-logical” (p. 79) as qualities associated with dominant introverted Feeling and “hypersensitivity to inner states, outbursts of emotion, and fear of feeling” (p. 79) as qualities associated with inferior introverted Feeling. Throughout, Quenk included a large number of illustrative anecdotes that she referred to as “collected participant ‘stories,’” and “my many composite stories of their experience” (p. 241). But again Quenk showed little concern for efficacy, the need for evidence, or the methodology that formed the basis for her “authoritative” presentation of these “dynamical qualities” and “stories.” Without a defensible, replicable methodology and a firm empirical foundation, Quenk's “stories” do not meet the rigorous standards of scientific research.

Quenk (1993) takes an overall minimalist approach that included few references to empirical

research. One citation of an empirical research study—where the results and implications for type theory were not addressed—misrepresented a lack of evidence for type dynamics found by McCrae and Costa (1989) as a lack of understanding of the concept:

The dynamic character of type theory is commonly overlooked by people new to typology and the MBTI personality inventory. This accounts for their often simplistic, categorical approach to the sixteen types. Similarly, psychologists familiar with **trait** approaches to personality often assume that the type system describes four personality dimensions whose effects are merely additive (McCrae & Costa, 1989). In ignoring the dynamic interactions critical to Jung's system, both laypeople and professionals miss out on its greatest contributions to the explanation and prediction of normal personality. (p. 19)

McCrae and Costa were not guilty of ignoring or overlooking the “dynamic interactions critical to Jung's system” but examined them empirically and found little evidence for them. Nor were they guilty of “assuming that the type system describes four personality dimensions whose effects are merely additive.” Rather, their interpretation of additivity was consistent with the empirical facts as they found them. Additional reference to research included brief reference to unpublished research by Wayne Mitchell, first in the text (p. 38) and later in a note (p. 276), and discussion of the research of Garden (1985, 1988) on burnout (pp. 235–236). Quenk's discussion of type dynamics included no other supporting evidence.

In the third edition of the *MBTI Manual* (Myers et al., 1998), efficacy was finally recognized and there was a balanced discussion of the research and empirical foundation of type dynamics. What is clear is that despite its importance to type theory, the number of published studies on type dynamics is limited and there is little empirical evidence to support it.

There are four additional points to be made here. First, six studies were cited that did not demonstrate expected type dynamics predictions. Whether or not the studies cited in the *MBTI Manual* provide a good test of type dynamics and are in fact weak tests of type dynamics as argued there misses the point. Regardless, they still failed to support type dynamics.

Second, Thorne and Gough's (1991) observer ratings and the reanalysis of that data for the dominant and auxiliary forms of the N, T, and F functions does not, as contended, support type dynamics. The *MBTI Manual* identified the overlap in the 10 most and 10 least adject-

tive descriptors for the dominant and auxiliary forms of N, T, and F for both males and females and then stated, “These percentages range from 0.0 to 13.8, suggesting that independent observers, who did not know the types of people they were describing, clearly did not see much similarity between types having the dominant versus auxiliary forms of Thinking, Feeling, or Intuition” (p. 204). The implication is that there are striking differences between the dominant and auxiliary as predicted by type dynamics. There is a fundamental baseline problem for these comparisons, however, as Thorne and Gough’s observers did not find much similarity anywhere, even within the same types—a result that might be expected, as observers made ratings using a rich and diverse pool of 300 adjectives.²

Third, the original research based on national sample data, although presented in a cursory fashion and for a very limited set of dependent variables, provided some, albeit limited, support for type dynamics. Dominant extraverted thinking (DET) was greater than auxiliary extraverted thinking (AET) for both health and friendships dependent variables and dominant extraverted feeling (DEF) was greater than auxiliary extraverted feeling (AEF) for a social dependent variable (*MBTI Manual* Table 9.21, p. 203). At the same time, there were also significant reversals that are incompatible with a type dynamics interpretation and contradict it. Auxiliary introverted sensing (AIS) was greater than dominant introverted sensing (DIS) for an accomplishment-dependent variable and auxiliary introverted intuition (AIN) was greater than dominant introverted intuition (DIN) for a home-and-family-dependent variable (*MBTI Manual* Table 9.22, p. 204). Support then was about as frequent as disconfirmation and not particularly compelling.

Fourth, the discussion of type dynamics introduced very restrictive conditions for evaluating the efficacy of type dynamics, e.g., requiring first a significant effect for the E–I x J–P interaction term, an effect that occurred rarely for the national sample data and in other investigations (Reynierse & Harker, 2001). Such restrictive methodological requirements do not correspond with the generality and ubiquity of type dynamics applications—applications in which type dynamics

interpretations are unrestricted. In my judgment, type theory is better served by embracing both theory and method that are inclusive and where the application applies to all—without restriction—dependent variables, a topic that will be revisited in another section of this paper.

And that is the full extent of direct support for type dynamics as reported in the *MBTI® Manual* (1998)—six studies that failed, one with a questionable interpretation, and one where contradictory evidence was offered as support. Type theory’s claim that type dynamics is superior to the static model and the straightforward contribution of the individual preferences rests on this ephemeral empirical foundation.

Finally, Lawrence and Martin (2001) presented five rules for what they call the “classic” way to identify type dynamics, an approach that paralleled the methods of Brownsword,

Quenk, and the *MBTI Manual*. To their credit, they addressed the issue of validity but accepted uncritically the evidence for type dynamics presented in the *MBTI Manual* and did not present any new supporting evidence.

The absence of any demonstrable empirical relationships is a serious deficiency of type dynamics. Although type dynamics is often invoked as both a predictor and explanation of human behavior, these roles are unjustified because an established set of empirical observations does not exist for type dynamics. We must first have an established body of facts or knowledge that can then be organized—by the theory—in a meaningful manner. Laws explain sets of empirical observations, whereas a theory explains a set of laws (Casti, 1990). Established facts are a necessary condition for explanation (Bunge, 1963; Casti). From this perspective, type dynamics provides neither knowledge nor truth and represents, at best, mere opinion. From this perspective, type dynamics does not qualify as theory and explains nothing.

What then does type dynamics accomplish? The rules or operations of type dynamics have been described in detail and identified earlier in this paper. There are three operationally distinct approaches to type dynamics that determine how type dynamics groups are formed or identified. Reynierse and Harker

“*That type dynamics has persistent logical problems and is fundamentally based on a series of category mistakes has serious consequences for type theory.*”

(2008a, 2008b) have, for convenience, referred to these models as the Grant-Brownsword model (Brownsword, 1987, 1988; Grant et al., 1983), the *Manual* model (Myers & McCaulley, 1985; Myers et al., 1998), and the Beebe model (Beebe, 1984) of type dynamics. In each case, knowing the four MBTI letters for a particular type provides a way of translating that type into type dynamics categories. And this is all we can say with any certainty about type dynamics. Type dynamics is strictly a method for forming type dynamics groups or categories. Type dynamics “assigns” but does not explain.

The question that remains is this: Are these type dynamics categories meaningful? The short answer is that their meaningfulness has not yet been demonstrated, a topic that will be addressed more fully in a later section of this paper. First, we must examine a methodological problem intrinsic to all forms of type dynamics.

TYPE DYNAMICS IS CONFOUNDED WITH ITS MBTI CONTENT

One of the problems facing studies of type dynamics is their failure first to recognize and then to address the confounding that is inherent in any type dynamics design. Confounding introduces systematic bias that compromises interpretation of results. Obtained results are just as likely the result of an alternative hypothesis as the favored type dynamics interpretation. Confounding distorts any orderliness intrinsic to the data in unpredictable ways. Unless these sources of confounding are identified and controlled, research on type dynamics is uninterpretable.

Another limitation of type dynamics research is that type dynamics is clearly articulated in terms of four functions that are hierarchically organized as dominant, auxiliary, tertiary, or inferior, yet studies of type dynamics have been limited to comparison of the dominant and auxiliary. Unless all four hierarchical functional conditions are included in the research design, type dynamics research is incomplete.

Within this broader four-function type dynamics paradigm, Reynierse and Harker (2008a, 2008b) identified three sources of confounding in which type dynamics conditions are confounded with the MBTI content or composition. The three sources of confounding are potential alternative interpretations to any interpretation based on type dynamics. The three sources of confounding apply equally to the Grant-Brownsword, *Manual*, and Beebe models of type dynamics. However,

because each model is configured somewhat differently, the confounding appears in a slightly different form depending on the model. Because of space limitations, in this paper I illustrate this confounding only for the Grant-Brownsword model of type dynamics. The interested reader should consult Reynierse and Harker for detailed treatment of both the identification of the confounding and empirical tests of type dynamics.

In the Grant-Brownsword model (Brownsword, 1987, 1988; Grant et al., 1983) type dynamics conditions are formed according to three rules as described earlier. The groupings for the dominant, auxiliary, tertiary, and inferior functions for S, N, T, and F as formed by these rules are summarized in **TABLE 4** (Brownsword). Explicit within the Grant-Brownsword model of type dynamics is the idea that for any individual the four functions are ordered in terms of individual preference and effectiveness, i.e., they form a hierarchy. For any individual, the functions are arranged such that the dominant is greater than auxiliary is greater than tertiary is greater than inferior. For convenience, this can be expressed as: dominant > auxiliary > tertiary > inferior.

But quite separate from the established rules that form type dynamics groups, the dominant and auxiliary functions are clearly demarcated from the tertiary and inferior functions. It is necessarily the case that the dominant and auxiliary functions *always* include a particular preference, e.g., S, whereas the tertiary and inferior functions *always* include the opposite function, e.g., N. For example, the eight dominant and auxiliary Sensing types in **TABLE 4** include an S (ESTP, ESFP, ISTJ, ISFJ, ISTP, ISFP, ESTJ, and ESFJ), whereas the eight tertiary and inferior sensing types include an N (ENFJ, ENTJ, INFP, INTP, INFJ, INTJ, ENFP, and ENTP). Although type dynamics is articulated in terms of individual functions, the structure always includes both a particular function and its opposite. In this sense, type dynamics groups are confounded with each functional preference and its opposite. The preference pairs hypothesis (Reynierse & Harker, 2008a, 2008b) is an alternative to type dynamics and can be expressed as follows: dominant = auxiliary > tertiary = inferior. Because of this confounding, effects may not be the result of type dynamics but may only reflect differences between the S and N or T and F preferences.

The expression of type dynamics conditions in the e and i attitudes are also confounded with the first letter of several MBTI types, i.e., with the E and I preferences. For example, although ISFP and ISTP types are auxiliary

Table 4. The Dominant, Auxiliary, Tertiary, and Inferior Types According to the Grant-Brownsword Model of Type Dynamics.

Jungian Function	MBTI Type	Type Dynamics Category	Expressed Jungian Attitude
Sensing	ESTP+ESFP	Dominant Sensing extraverted	E (Se)
	ISTJ+ISFJ	Dominant Sensing introverted	I (Si)
	ISTP+ISFP	Auxiliary Sensing extraverted	E (Se)
	ESTJ+ESFJ	Auxiliary Sensing introverted	I (Si)
	ENFJ+ENTJ	Tertiary Sensing extraverted	E (Se)
	INFP+INTP	Tertiary Sensing introverted	I (Si)
	INFJ+INTJ	Inferior Sensing extraverted	E (Se)
	ENFP+ENTP	Inferior Sensing introverted	I (Si)
Intuition	ENFP+ENTP	Dominant Intuition extraverted	E (Ne)
	INFJ+INTJ	Dominant Intuition introverted	I (Ni)
	INFP+INTP	Auxiliary Intuition extraverted	E (Ne)
	ENFJ+ENTJ	Auxiliary Intuition introverted	I (Ni)
	ESTJ+ESFJ	Tertiary Intuition extraverted	E (Ne)
	ISTP+ISFP	Tertiary Intuition introverted	I (Ni)
	ISTJ+ISFJ	Inferior Intuition extraverted	E (Ne)
	ESTP+ESFP	Inferior Intuition introverted	I (Ni)
Thinking	ESTJ+ENTJ	Dominant Thinking extraverted	E (Te)
	ISTP+INTP	Dominant Thinking introverted	I (Ti)
	ISTJ+INTJ	Auxiliary Thinking extraverted	E (Te)
	ESTP+ENTP	Auxiliary Thinking introverted	I (Ti)
	ESFP+ENFP	Tertiary Thinking extraverted	E (Te)
	ISFJ+INFJ	Tertiary Thinking introverted	I (Ti)
	ISFP+INFP	Inferior Thinking extraverted	E (Te)
	ESFJ+ENFJ	Inferior Thinking introverted	I (Ti)
Feeling	ESFJ+ENFJ	Dominant Feeling extraverted	E (Fe)
	ISFP+INFP	Dominant Feeling introverted	I (Fi)
	ISFJ+INFJ	Auxiliary Feeling extraverted	E (Fe)
	ESFP+ENFP	Auxiliary Feeling introverted	I (Fi)
	ESTP+ENTP	Tertiary Feeling extraverted	E (Fe)
	ISTJ+INTJ	Tertiary Feeling introverted	I (Fi)
	ISTP+INTP	Inferior Feeling extraverted	E (Fe)
	ESTJ+ENTJ	Inferior Feeling introverted	I (Fi)

Sensing extraverted (Se) groups (**TABLE 4**), they are Introverted types that include the I preference. This confounding occurs repeatedly in type dynamics, and it is necessary to control for this second source of confounding by parallel statistical analyses that separate strict MBTI E and I effects from the expression of type dynamics effects in the e (e.g., Se) and i (e.g., Si) attitudes. This is primarily a methodological issue when separate tests are completed for the extraverted and introverted attitudes. When Extraversion and Introversion are combined, i.e., when Dominant Sensing (ESTP, ESFP, ISTJ, and ISFJ), Auxiliary Sensing (ISTP, ISFP, ESTJ, and ESFJ), Tertiary Sensing (ENFJ, ENTJ, INFP, and INTP), and Inferior Sensing (INFJ, INTJ, ENFP, and ENTP) are collapsed across the attitudes and compared directly (**TABLE 4**), this source of confounding is counterbalanced, with reduced methodological consequences. Regardless, E and I preference effects are an alternative interpretation relative to the expression of type dynamics effects in the e and i attitudes, and analyses are required that separate these alternatives.

Preference multidimensionality is a third and more complicated source of confounding that occurs for type dynamics. Type dynamics relationships are inherently multidimensional and necessarily include two preferences—a function, S, N, T, or F and an attitude, either E or I. However, preference multidimensionality is a general effect independent of type dynamics as two or more preferences are often necessary to describe significant type effects (Boozier, Forte, Maddox, & Jackson, 2000; Harker, Reynierse, & Komisin, 1998; Reynierse, 2000c; Reynierse & Harker, 2001). To take just one example, the descriptor “Competitive” is a primary T item where $r = .27$ and has a secondary association with E where $r = .19$ (Harker et al., p. 13), and this multidimensionality extended to many of their items.

Multidimensionality is embedded in the composition of each type dynamics group (**TABLE 4**) but in clearly different ordinal relationships than that described by type dynamics, thereby producing different predictions than those of type dynamics. Again, take the item “Competitive” as an example, relating it to the type content or composition of the type dynamics groups for the Thinking function in **TABLE 4**. Note that there are conditions in which both preferences (T and E) are shared, and these are the ENTJ, ESTJ, ESTP, and ENTP types. There are other conditions in which only the primary preference is shared (in this case T) and these are the INTP, ISTP, ISTJ, and INTJ types. Additional condi-

tions include the ones in which only the secondary preference is shared (in this case E), and these are the ENFP, ESFP, ENFJ, and ESFJ types. Finally, there are conditions in which neither relevant preference is present nor shared, i.e., they are F and I rather than T and E groups, and these are the INFJ, ISFJ, ISFP, and INFP types.

In this sense, type dynamics conditions are confounded with their multidimensional MBTI content. Reynierse and Harker (2008a, 2008b) examined the effects of preference multidimensionality for the item “Competitive” and 56 additional items. *In every case, without exception*, the order effects predicted by preference multidimensionality occurred and were statistically significant. The order effects predicted and found for preference multidimensionality will be presented more fully in the section that examines preference multidimensionality.

Individual variables have relatively unique empirical relationships with the MBTI preferences as identified by correlation coefficients, difference scores, or other measures. These demonstrated significant relationships represent the MBTI content or composition for those variables, because they are the MBTI preferences that are relevant for describing that variable. Sometimes, when this MBTI content includes two preferences—a function, S, N, T, or F and an attitude, either E or I—the multidimensionality conforms to that expected by type dynamics. In other cases, because the individual preferences are free to combine more broadly, many other combinations are possible. Type dynamics is not only confounded with its MBTI multidimensional content but is also unduly limiting and restrictive.

Unfortunately, studies of type dynamics have not routinely recognized or controlled for these three sources of confounding. Although empirical support for type dynamics, in any form, is limited and equivocal, the failure to include appropriate controls means that there has not been either a convincing or methodologically appropriate empirical demonstration of type dynamics anywhere. The next two sections examine the empirical inadequacy of type dynamics and will show that the alternatives to type dynamics fit the empirical record and account for the facts—but type dynamics does not. The orderliness intrinsic to the established empirical record can be accounted for exclusively by the preferences, either alone, or in more complex cases by preference multidimensionality. The inherent confounding in type dynamics only distorts this orderliness and makes the data incomprehensible.

TYPE DYNAMICS DOES NOT ACCOUNT FOR THE EMPIRICAL FACTS

Belief in type dynamics is usually supported, not by empirically determined facts, but rather by appeals to the anecdotal record. This is apparent in Quenk's (1993) "stories" and the accounts of type dynamics that can be found in almost any issue of the *Bulletin of Psychological Type*. For example, I reviewed every article in the 2000 and 2001 issues of the *Bulletin* and identified approximately 40 articles that invoked type dynamics and then relied exclusively on anecdotal accounts of type dynamics without considering or citing any research evidence. And that is the problem for type dynamics, because the anecdotes appear in an empirical vacuum in which established facts and lawful relationships are simply missing.

Are there any established facts that emerge from the empirical record and rigorous research on type dynamics? Reynierse and Harker (2008a, 2008b) presented the empirical case against type dynamics, and it is unnecessary to repeat all of their arguments or review all of their results. The research is lengthy, consisting of six separate studies and hundreds of direct tests of type dynamics theory, and the interested reader should consult the studies directly for methodological and empirical details. Reynierse and Harker examined sep-

arately the type dynamics rules or operations identified by three different approaches to type dynamics—the Grant-Brownsword (Brownsword, 1987, 1988; Grant et al., 1983), *Manual* (Myers & McCaulley, 1985; Myers et al., 1998) and Beebe (1984) models of type dynamics. They then formed the appropriate groups (research conditions) based on these rules and examined predictions from type dynamics for these groups. The groups as formed by the Grant-Brownsword model are presented in TABLE 4. The groups as formed by the *Manual* and Beebe models are summarized in Reynierse and Harker. In addition, Reynierse and Harker identified three sources of confounding within type dynamics and, as part of their research, completed additional analyses to control for this confounding.

The results obtained by Reynierse and Harker (2008a, 2008b) were clear: There was little, if any, evidence to support a type dynamics interpretation. The critical empirical results are summarized in TABLE 5. The prediction that provides the greatest support for type dynamics, that the dominant > auxiliary > tertiary > inferior never occurred for 270 direct tests of the Grant-Brownsword model and occurred only once for 270 direct tests of the *Manual* model.⁴ Although this is nonfatal, that it occurred so rarely—only once out of 540 tests—is telling.

Table 5. Summary of Major Empirical Type Dynamics Results Reported by Reynierse and Harker (2008a, 2008b)³.

1. The hierarchical nature of type dynamics predicts that the dominant > auxiliary > tertiary > inferior, but this effect never occurred for the Grant-Brownsword model and occurred only once for the *Manual* model.
2. The preference pairs hypothesis predicts that the dominant = auxiliary > tertiary = inferior, and this effect occurred 106 times for the Grant-Brownsword model and 99 times for the *Manual* model. These effects are due strictly to the functional preferences, S, N, T, or F.
3. Partial support for type dynamics, e.g., dominant > auxiliary only or tertiary > inferior only, occurred 47 times for the Grant-Brownsword model and 45 times for the *Manual* model.
4. Reversals to type dynamics' predictions, e.g., auxiliary > dominant, inferior > tertiary, tertiary > dominant, etc., occurred 54 times for the Grant-Brownsword model and 50 times for the *Manual* model. These reversals contradict type dynamics.
5. There was no indication of hierarchy for the eight Beebe model positions.
6. Control conditions emphasizing the preference pairs hypothesis produced dominant = auxiliary > tertiary = inferior 58 times.
7. Control conditions produced effects that were due strictly to the MBTI E–I preference pair, effects demonstrated both directly and indirectly in Reynierse and Harker (2008a, 2008b).
8. Preference multidimensionality ordinal relationships in which the Both condition was followed by the Primary, Secondary, and Neither conditions in fixed, sequential order occurred in every case (Reynierse & Harker, 2008a, 2008b), first for 57 items (Study 5) and later for 45 items (Study 6). There were no reversals, and no effects were contradictory.

The preference pairs hypothesis is an alternative to type dynamics, which predicts that the dominant = auxiliary > tertiary = inferior; this effect occurred 106 times for the Grant-Brownsword model and 99 times for the *Manual* model. The significance of these results for type theory is that they are due exclusively to the individual functions—the S, N, T, or F MBTI preferences—rather than any contribution from type dynamics conditions. Because these results are direct predictions of the preference pairs hypothesis, the results favor the more parsimonious preference pairs hypothesis over type dynamics. But they are not fatal to type dynamics because type dynamics can claim, correctly, that the ordinal relationships are at least consistent with type dynamics.

Control conditions produced effects that were due strictly to the MBTI E–I preference pair (Reynierse & Harker, 2008a, 2008b). The significance of these effects is that they are straightforward E–I preference effects rather than any contribution of type dynamics conditions, particularly the type dynamics requirements about the “pointer variable” role of J–P and the expression of the functions in the E and I attitudes. In other words, E–I points to E–I and J–P only points to J–P. Distinctions regarding the *expression of the functions in the E and I attitudes* are a critical theoretical and operational element of type dynamics, and these negative results falsify this expectation (Popper, 1934/1959) and are incompatible with type dynamics. This is the case because straightforward E–I preference effects have *demonstrated identity*, whereas the “pointer variable role of J–P” and the “expression of the functions in the E and I attitudes” do not. Type dynamics suffers from an “identity crisis” that violates the “law of identity,” a self-evident logical principle that states that “whatever is, is” (Russell, 1912/1968, p. 72).

Using the same general design as used in the *MBTI Manual* (Myers et al., 1998) for the national sample data research, Reynierse and Harker (2008a, 2008b) found effects, e.g., that the dominant > auxiliary, that paralleled effects reported in the *MBTI Manual*. Partial effects such as these were found a total of 92 times. These relatively frequent significant effects, viewed in isolation, can be construed as support for type dynamics. But they cannot be viewed in isolation, because reversals to type dynamics predictions, e.g., auxiliary > dominant, inferior > tertiary, or tertiary > dominant, etc. occurred 54 times for the Grant-Brownsword and 50 times for the *Manual* models—a total of 104 reversals and contra-

dictions to type dynamics theory. Similar reversals, as noted earlier, were reported in the *MBTI Manual* but were not identified as contradictions to theory. Regardless, confirmation of type dynamics predictions occurred about as often as disconfirmation for both Reynierse and Harker’s analyses and those of the *MBTI Manual*. Most importantly, these reversals are fatal to type dynamics, because they violate the “law of contradiction,” a self-evident logical principle that states that “nothing can both be and not be” (Russell, 1912/1968, p. 72).

The empirical problem for type dynamics is a systemic one, as there is no consistent structure present in the data. Whatever model of type dynamics was examined—the Grant-Brownsword, *Manual*, or Beebe model—the results were the same: Specific predictions were not confirmed, and contradictory reversals occurred often. Further, there is a good reason for these systemic empirical problems: Type dynamics is confounded with its MBTI content such that the expression of the functions in the extraverted or introverted attitudes reverses E and I conditions and thereby produces systematic bias that distorts strict MBTI empirical relationships. Type dynamics, in any form, simply does not organize the data in an orderly fashion that corresponds with the facts. Type dynamics is a conceptually muddled construct that lacks coherence.

There is another view (e.g., Myers et al., 1998; Mitchell, 2006) in which type dynamics is identified with type interactions. From this perspective, type dynamics includes the idea that the preferences interact to produce something new that is different from the individual preferences, i.e., that the whole is greater than the sum of the parts. There are at least three problems here. First, this view conflates type dynamics with type interactions, as they are distinct theoretical issues that have separate operations and need to be tested separately. Evidence for one is not evidence for the other. Second, Mitchell makes the arbitrary and troubling decision “to accept ranks out of order” when in fact such results were contrary to theory and prediction. Based on the falsification principle (Popper, 1959), such “out of order ranks” demonstrate that the model is in error and do not confirm the model, as claimed, for those variables tested. Third, the evidence for type interactions is limited and relatively trivial compared to the contribution of the individual preferences.

The empirical effects for studies of type interactions are established and consistent. Large-scale studies

by different investigators that included many tests of type interactions found similar empirical trends for ratings of personal preferences (Myers et al., 1998), lexical descriptors (Reynierse & Harker, 2000, 2001), self-report questionnaire scale scores (Reynierse & Harker, 2005a), business values (Reynierse, Harker, Fink, & Ackerman, 2001), and personal values important for teamwork (Sundstrom, Koenigs, & Huet-Cox, 1996). In each case there were many significant effects for the individual preferences and two-way interactions, diminished effects for the three-way interactions, and inconsequential effects for the four-way interaction. Examining the effects indicated that the interactions were usually small, the percentage of variance accounted for by the interactions was often trivial, and many significant interactions were statistical artifacts that disappeared when examined more closely.

Significant interactions occur, e.g., Rytting and Ware (1993), but they are clearly modest in scope, are subordinate to the individual preferences, and occur primarily at the most basic level, i.e., at the level of the two-way interactions or Pairs. Further, the interactions produce synergistic effects for the straightforward MBTI preferences, are complicated and difficult to interpret because type interactions include both augmenting and mitigating type effects (Reynierse & Harker, 2001) as well as ordinal and disordinal statistical effects (Lubin, 1961), but have no known categorical consequences or relationships for type dynamics. Type interactions reflect relatively minor quantitative differences rather than the large qualitative effects and differences that are assumed by type theory and type dynamics.

PREFERENCE MULTIDIMENSIONALITY ORGANIZES THE DATA IN AN ORDERLY WAY

The theory that organizes the data in a meaningful way starts with the MBTI preferences and extends the Five Factor Model (FFM) of personality (e.g., McCrae & Costa, 1989, 2003) to the bipolar conditions of type theory. This theory was presented in a preliminary way by Reynierse and Harker (2008a, 2008b) and will be developed and presented more fully in the future. For now, I provide only a brief introduction to theory in order to provide background for understanding the rationale behind the organization and structure of the relevant research conditions.

Preference multidimensionality includes two fundamental ideas: first, that two or more MBTI prefer-

ences are often necessary to describe significant type effects and relationships (Harker et al., 1998; Reynierse, 2000c; Reynierse & Harker, 2001, 2008a, 2008b); second, that preference effects are proportional to their independent association or contribution, i.e., the independently larger preference will, within methodological limits (e.g., adequate sample size and statistical power), have a greater effect than the independently smaller preference. The theory is inclusive and includes all preference relationships, including one-dimensional or single preference effects. Emphasis is placed on preference multidimensionality because that is the more interesting application of theory and provides for progressive complexity.

In discussing preference multidimensionality, one should be mindful of several important distinctions. First, I make the type theory assumption that everyone has the capability to use all eight preferences, but as bipolar opposites they can be used only successively, not simultaneously. In this sense, individuals are more comfortable and skilled in the use of their preferred preferences but in the appropriate situations still use their nonpreferred preferences, albeit less frequently and skillfully. Every individual is naturally prepared to respond to the preference multidimensionality that is characteristic of a particular situation or context, although their skill in doing so will be uniquely determined by the arrangement of their own preferences.

Second, I make the further assumption that each of the eight MBTI preferences is functional (Reynierse, 2000d) and can be ranked based on individual MBTI scores, a ranking procedure whose effectiveness was demonstrated by Reynierse and Harker (2005b). In proposing eight functions, this model is superficially similar to Beebe's (1984) eight-functions model but differs considerably in the nature of the eight functions and in the hierarchical ordering of these functions for any individual.

Third, the expression of psychological type is fundamentally contextual and situational. The type factors that describe people are separate from and different from the type effects that describe psychological situations. In this sense, the preference multidimensionality identified for the lexical descriptors of my research with John Harker (e.g., TABLE 3) describes those psychological events—not individual people. These psychological events or situations are dependent on only some—not all eight—MBTI preferences. Unlike individual people who have the capability of using all

eight preferences, psychological situations vary regarding the preferences that are relevant for them and are described by only a unique fraction of the available MBTI preferences. Some preferences are relevant for particular situations, whereas other preferences are noncontributory, are unnecessary, and irrelevant.

Fourth, following traditional type practice and convention, terms such as “dominant” and “auxiliary” are reserved to describe the relationship of the MBTI preferences for individual people. Psychological events are situational and contextual, where the contribution of each individual preference is relative and described as a primary or secondary relationship. Quantitative differences determine the relative contribution of the preferences and contribute to unique typological effects. The relative contribution of the individual preferences varies depending on the specific situational and contextual conditions.

Fifth, the preference pairs hypothesis is a special case of preference multidimensionality. More generally, the preference pairs effect occurs when only one relevant preference makes a meaningful contribution—i.e., effects are one-dimensional rather than multidimensional.

Sixth, although the simplest form of preference multidimensionality includes two relevant preferences, more complex cases include three or even four relevant preferences. Complexity is further enriched by the different orders that are free to occur as well as the relative quantitative contribution, i.e., amount, of each preference. In this sense type and trait constructs can coexist and codetermine personality effects and relationships.

Preference multidimensionality refers to the MBTI content or composition of variables. For example, the three descriptors identified in **TABLE 3** have explicit MBTI content and relatedness identified by significant correlation coefficients and difference scores with the E, S, and T preferences for the items “Persuasive” and “Assertive,” and with the E and T preferences for the item “Dominant.” These three descriptors illustrate how preference multidimensionality predicts different order effects based strictly on their MBTI content or composition, order effects that are different from the orders predicted by type dynamics. Here discussion is limited to

the E and T effects, i.e., the contributions of only two preferences and the simplest form of preference multidimensionality. The significant S preference for the items “Persuasive” and “Assertive” is a complicating factor that can be ignored for illustrating the contributions of the E and T preferences.⁵

Four MBTI content conditions occur when the contributions of two preferences, in this case E and T, are considered. These content conditions include conditions in which both preferences are shared (e.g., both E and T), where only an attitude is shared (e.g., E), where only a function is shared (e.g., T), and where neither the relevant attitude nor function is shared (e.g., I and F are shared but not E and T).

Content conditions are ordered to include the additive effects of the relevant preferences and necessarily vary depending on which preferences are primary and secondary. Thus, for the ET item “Persuasive” in which E is primary and T secondary, the specific order of analysis and effect includes first the Both preferences group (including **ESTJ**, **ENTJ**, **ESTP**, and **ENTP**); next, the Primary preference

only group (**ESFP**, **ENFP**, **ESFJ**, and **ENFJ**); then the Secondary preference only group (**ISTP**, **INTP**, **ISTJ**, and **INTJ**); and last, the Neither preference group (**ISFJ**, **INFJ**, **ISFP**, and **INFP**). Compare with **TABLE 4** for type dynamics order effects. The MBTI content that affects these orders varies depending on which preferences are primary or secondary and this can be illustrated by contrasting the ET item “Persuasive” in which E is primary and T secondary, with the TE item “Dominant” in which T is now primary and E is secondary. For the TE item “Dominant,” the Both preferences group remains the same (including **ESTJ**, **ENTJ**, **ESTP**, and **ENTP**); now the Primary preference only group is based on T content (**ISTP**, **INTP**, **ISTJ**, and **INTJ**); and the Secondary only group is based on E content (**ESFP**, **ENFP**, **ESFJ**, and **ENFJ**); and last, the Neither preference group remains the same (**ISFJ**, **INFJ**, **ISFP**, and **INFP**). In general, for these examples full preference multidimensionality occurs in which Both > Primary > Secondary > Neither. For items such as “Assertive,” in which E and T are approximately equivalent, however, the primary-secondary relationship is not meaningful. Accordingly, in

“*Although type dynamics is often invoked as both a predictor and explanation of human behavior, these roles are unjustified because an established set of empirical observations does not exist for type dynamics.*”

this case the prediction also changes and is now Both > E Only = T Only > Neither (or alternatively, Both > E Only & T Only > Neither). Because the MBTI content is equivalent, groups composed strictly of MBTI E content or MBTI T content should not differ significantly from each other.

Reynierse and Harker (2008a, 2008b) examined the order effects for “Persuasive,” “Dominant,” “Assertive,” and 54 additional items. The results followed a general pattern in which the Both condition was followed by the Primary, Secondary, and Neither conditions in fixed, sequential order. The most compelling cases included significant effects in which Both > Primary > Secondary > Neither (occurred 10 times); Both & Primary > Secondary > Neither (occurred 7 times); Both > Primary & Secondary > Neither (occurred 13 times); and Both > Primary > Secondary & Neither (occurred 7 times). All of these relationships are predictable outcomes that fully support the preference multidimensionality hypothesis. Although the remaining 20 cases produced lesser effects that reflect somewhat weaker items, they too were entirely consistent with preference multidimensionality. In every case—for all 57 items investigated—the ordinal relationship remained intact, the Both preferences condition always showed the significantly strongest effect, whereas the Neither preference condition was always significantly weakest, and *there were no significant reversals* between the four MBTI content conditions.

John Harker and I have now tested almost 500 cases in which the preference multidimensional conditions include two relevant preferences and about 150 cases in which there are three relevant preferences. In every case—without exception—the order effects predicted by the MBTI content (composition) conditions of preference multidimensionality occurred, and there were no significant reversals between the predicted orders. Such uniformity of results is surprising because our research—like most social science research—is undoubtedly subject to random variability and artifacts that compromise the data in unpredictable ways.

The significance of these results is that preference multidimensionality organizes the data in an orderly fashion that corresponds with the facts, whereas type dynamics does not. Orderliness occurs when research disentangles the confounding that is natural to type dynamics. Orderliness occurs when we recognize that E–I points to E–I and J–P points to J–P—not to E–I. The highly systematic and orderly results of this research can

be explained by three variables or principles—the individual functions as expressed in the preference pairs, strict effects for the E–I preference pair, and preference multidimensionality. The individual MBTI preferences, acting alone or in concert with other preferences, are sufficient to account for all of the effects and relationships.

IS TYPE DYNAMICS JUNGIAN?

Much (e.g., McCaulley, 1999) has been made of Jung’s differentiation of a dominant and auxiliary process and his statement that, “the rule holds good that besides the conscious primary function there is a relatively unconscious, auxiliary function which is in every respect different from the nature of the primary function” (Jung, 1923/1971, p. 406). Does this justify the MBTI version of type dynamics? Or for that matter, is type dynamics a faithful interpretation of Jung? Is the American, MBTI type community the best source for interpreting Jung and deciding what Jung really meant?

There is another credible source for interpreting Jung—his assistant of many years, Carl Alfred Meier. On the relationship of the E and I attitudes to the functions, Meier (1977/1995) was absolutely clear—indicating that the “preponderance of one attitude (introverted or extroverted) or one function (Thinking, Feeling, Sensation, Intuition) in one person, and the opposite in another person, forms the basis for much misunderstanding and intolerance . . .” (pp. 7–8). Meier identified the functions and attitudes as pairs of opposites that are determined only by the *preponderance* expressed by any individual. Or as Meier put it, “The starting point for Jung’s typology was the fact that people usually have a preference for one specific ‘intellectual talent’ and exploit it to the full” (p. 13). Putting this in MBTI and type dynamics terms, the best estimate of the preponderance of Extraversion or Introversion is one’s MBTI E or I score, and the pointer variable role of the J–P preference pair is irrelevant for expressing any of the functions in the E or I attitude.

Consider also what Meier (1977/1995) identified as the fourth fundamental principle when he noted:

So one can say that someone is a thinker, someone else a feeling type, i.e., one orients himself preferably with the thinking function, the other preferably according to his feelings. This main function is his strong point, works reliably, and is thus referred to as the differentiated, or simply, the main function. On the basis of the principle of exclusion the other function can be assumed to function weakly in

comparison, which is why we refer to it as the inferior function. The other two functions have a sort of intermediate position. (p. 13)

Meier, interpreting Jung, then makes clear that where there is an auxiliary type it is in the same attitude, whereas the inferior is always in the opposite attitude. For example, in discussing Extraverted Sensation plus Thinking as an auxiliary function, Meier wrote “Cooperation with the main function is made easier because of thinking’s similar attitude (extroversion)” (p. 32). By contrast, the inferior is always opposite to the dominant according to Meier, as “the attitude and function type are coupled together in relation to the opposite type, with the results that the latter is inferior both with respect to attitude and function” (p. 20).

What is significant about this is that the results reported by Reynierse and Harker (2008a, 2008b) for preference multidimensionality are consistent with the Jungian interpretation that identifies function and attitude differences between the first (dominant) and fourth (inferior) positions, e.g., EN versus the opposite IS, but do not postulate attitude differences between the dominant and auxiliary, e.g., the dominant EN and auxiliary ET (or EF) both occur in the E attitude. Further, there is parallel representation in preference multidimensionality between Reynierse and Harker’s “Both” condition (e.g., EN) and their “Neither” condition (e.g., IS) with Meier’s (1977/1995) interpretation of type opposites. In this sense, the preference multidimensionality research of Reynierse and Harker is entirely consistent with Jung and supports the fundamental type concept of complementary opposites.

Jung proposed eight function types, or more correctly considering current knowledge, eight *preference multidimensional* function types—four extraverted function types (ES, EN, ET, and EF) and four introverted function types (IS, IN, IT, and IF). Jung was mostly right, and he can be excused for being incomplete and not recognizing the contribution of the FFM dimension of Conscientiousness and the MBTI equivalent of J–P. Jung’s function types include the straightforward contribution of the functions and attitudes without the necessity of the convoluted role of type dynamics.

SOCIAL CONTEXT

Type dynamics has persistent empirical and logical problems that at the very minimum raise questions about its legitimacy. Yet the type community is bombarded with messages about type dynamics. Announcements for training programs, *Bulletin of Psychological Type* articles, conference presentations and programs all endorse, celebrate, and raise the profile of type dynamics in one form or another. It is also clear that the overwhelming emphasis on type dynamics is more ephemeral than substantive and promotes the status quo in lieu of advancing understanding. Collectively, the activities that promote type dynamics exert considerable influence to accept type theory as originally stated.

From the time that a new type practitioner is first exposed to the MBTI measure and official MBTI type training, type dynamics is presented as something “more than” and “superior” to the eight preferences. We are reminded that type dynamics is the core of the typology (Lawrence & Martin, 2001; Pearman, 1992; Quenk, 1993), whereas interpretations based on the individual preferences are superficial and simplistic (Berens, 1999; McCaulley, 2001; Pearman, 2001; Quenk, 1992; Thompson, 1998).

The perceived and proclaimed superiority of type dynamics over the contributions of the individual preferences is pervasive. Recall that the claimed superiority of type dynamics occurs in an empirical context, where the evidence for the preferences is overwhelming and well documented. By contrast, type dynamics’ supporters provide no evidence for the validity of type dynamics, and the documented supporting evidence for type dynamics, e.g., the *MBTI Manual* (Myers et al., 1998), is weak at best, despite its positive interpretation. Considering the weak empirical record, in which validity is in doubt and there is considerable evidence against it, one might expect that type spokespersons would be cautious when making claims about type dynamics. Yet these type authorities are certain rather than cautious and make forceful claims. They repeatedly criticize “newcomers to type” who don’t understand type dynamics but rely instead on adding together the eight preferences (e.g., Quenk, 1992, 1993; Thompson, 1996, 1998) or have a surface rather than dynamic understanding of type (Pearman, 1999, 2001).

“
The question that
remains is this:
Are these type
dynamics categories
meaningful?”

Concluding Comment. A first principle of scientific inquiry is that scientific knowledge is provisional and is subject to revision. Quenk (2008) was highly critical of high school and college teachers who “. . . typically uninformed or with poor understanding of the MBTI assessment, then provide students with additional misinformation about what the results mean relative to one or another subject matter or life in general” (p. 20). Her complaint, as she made clear, was that their feedback and understanding was not based on type dynamics and that “. . . a standard basic interpretation built around the core of personality differences, i.e., perception and judgment” was required (p. 21). Quenk’s comments occurred in a context in which she was promoting an MBTI reporting and feedback system that institutionalizes type dynamics. However, in this case those “uninformed teachers” were reasonably correct and closer to the truth, whereas the “type experts” who rely on type dynamics were in error. Quenk had it exactly backward. It is only the eight individual MBTI preferences that have demonstrated validity—not type dynamics or the type categories formed by type dynamics. The time has come for the type community to abandon their enthusiasm for type dynamics and to discard it. The provisional nature of science and the ethical use of type both demand it.

NOTES

- ¹ Quenk (1993) in a note discussed the attitude relationships of the auxiliary and tertiary functions and suggested that “A third hypothesis that I have proposed is that given the somewhat borderline status of the tertiary function, it may take either attitude, depending on circumstances or other idiosyncratic factors” (p. 276). But this proposal suffers from the logical problem of violating the “law of excluded middle,” a self-evident logical principle that states that “everything must either be or not be” (Russell, 1912/1968, p. 72). Quenk’s proposal only succeeds in trying to have it both ways, without clearly identifying the circumstances or idiosyncratic factors—in other words the underlying variables—that would specify these attitude relationships.
- ² The *MBTI Manual* comparisons cry out for an appropriate control group, although such a control is not obvious among Thorne and Gough’s (1991) research conditions. However, using the identical data reported by Thorne and Gough and the same data re-analyzed in the *MBTI Manual*, I compared directly the overlap for both the most typical descriptors and least typical

descriptors between the males and females for each of the 10 types examined by Thorne and Gough. For the 20 comparisons, there was 0% overlap for 9 comparisons, 5.3% overlap for 6 comparisons, 11.1% overlap for 1 comparison, 17.6% overlap for 3 comparisons, and 25% overlap for 1 comparison. On average, for the same types, there was only 5.5% agreement (21/379 cases) for observer ratings from Thorne and Gough’s independent observers, who made ratings on 300 descriptors. Because the similarity baseline was very low, type dynamics interpretations of their data remain ambiguous and uncertain, and the most parsimonious interpretation is that Thorne and Gough’s observers did not find much similarity anywhere. This lack of similarity between the dominant and auxiliary types as reported in the *MBTI Manual* indicates that the observers did not find or report much similarity anywhere, even within the same types.

- ³ In the general case, in which high scores indicate a greater or stronger effect, the functions are arranged such that the dominant is greater than auxiliary is greater than tertiary is greater than inferior. This can be expressed as: dominant > auxiliary > tertiary > inferior. However, for Reynierse and Harker’s (2008a, 2008b) rating scale, low rating scores indicate a greater or stronger effect. The results reported in **Table 5** and in the text are transposed effects that correct for their scale scores and rearrange them to conform to the general case.
- ⁴ The requirement that the dominant > auxiliary > tertiary > inferior is inclusive in that the dominant must be significantly greater than the auxiliary, tertiary, and inferior functions; the auxiliary must be significantly greater than the tertiary and inferior functions; and the tertiary must be significantly greater than the inferior. Realistically, however, research data are “messy” and are influenced by any number of methodological and random factors and many departures from this ideal condition are expected. Results that depart from this hierarchical expectation are not fatal to type dynamics theory, provided that the predicted order is maintained. Still, the effect should occur sometimes, and that it occurred in only one out of 540 opportunities is an indication that type dynamics has serious problems and simply does not organize the data in a meaningful way.
- ⁵ When evaluating the contributions of only two preferences, in this case E and T, the third contributing preference, e.g., S, is balanced among the four-letter types in each of the four (Both, Primary, Secondary, and

Neither) research conditions and has a negligible effect. When there are three contributing preferences, eight multidimensional conditions are necessary, conditions that were examined by Reynierse and Harker (2008a, 2008b) with the same general results.

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