Temperament/type and OHS specialists

Note: this version of the paper includes results of the survey administered at this session.

Temperament is the attributes of personality that affect reasoning style and preferences. It is recognized that certain kinds of activities appeal more to certain temperaments than others. The implications of this are that some types of work appeal more to some than to others. Career counselling often includes tests of temperament, and if the characteristics of a job are known, candidates with the corresponding temperament might be recruited. Other options include broadening activities to appeal to more temperaments. This is commonly attempted by educators, attempting to present material for multiple intelligences or types.

Of course many types of work are multidimensional, and leveraging type/temperament might involve encouraging specialization within the activity.

We might also enlighten practitioners about strengths and weaknesses so that people are conscious of where they are working with and against their own strengths, and adapt accordingly.

There are various ways to assess temperament, including the well-known Myers-Briggs Type Indicator (MBTI). Career centres and some HR professionals are certified to administer this test. There are websites related to this as well, including the well-known Keirsey Temperament Sorter that is believed to correspond well to MBTI. (See www.keirsey.com for online test.) One can also subjectively assess temperament by reading descriptions of various types/temperaments in websites and books such as Please Understand Me, or Do What You Are.

In brief, the MBTI-based systems focus on four pairs of letters, each pair of letters representing a scale. Individual scores are recorded in terms of the closer endpoint on all four scales. Within each half-scale, a person could be very close to the end or almost at the midpoint, and the same letter would be recorded.

- E or I reflects introversion/extraversion (Does interacting with others give you energy (E) or take energy from you (I)?)
- N or S reflects how you prefer to receive information (S prefers building on factual evidence and experience to draw conclusions; N prefers detecting patterns and reasoning from abstractions)
- T or F reflects preferred method of making decisions (T prefers to follow rational processing rules; F is concerned with keeping good relations between people)
- J or P reflects preference about closure (J prefers decisions and activities to be planned ahead and completed on time; P prefers to keep your options open, adjust and adapt)

Combining four scales with two possibilities, there are 16 4-letter combinations possible, and as shown above, these are clustered into four families of four types.

The temperaments are not all equally common. The bar chart (Figure 1) shows the breakdown of the four type families in the population at large (top bar), a small sample (N=16) of OHS students at Ryerson, and a sample (N=33) of OHS practitioners. These surveys seem to indicate that SJ types are
much more common in the safety field than in the population at large, even though SJ is a fairly common type at large.

At the 2002 CSSE Professional Development Conference, 29 people completed a Kiersey Temperament Sorter questionnaire. Twelve respondents were of the “SJ” type, seven were “NF”, two were “SP” and one was in the “NT” category. A further six respondents had ties in their scores that made it unclear whether they were SJ or SP, or NT or NF, and thus could not be totalled into the four quadrants. Of these, four were F and two were T; three had an unambiguous S trait. The following chart excludes those with ambiguous types (tie scores).

Safety Specialist work
Safety specialists perform a variety of activities such as:
- Safety training
  - Rights and responsibilities, company policies and procedures, WHMIS, etc.
  - Hazard specific
- Regulatory compliance monitoring
  - Ensure compliance with old/new rules and regulations
  - Follow up on orders
- Hazard inspections
  - General conditions
  - Control systems
- Accident investigations

The participants in the CSSE 2002 workshop survey were predominantly safety specialists rather than "interested others". Four respondents described themselves as doing some safety-related functions, and the remainder indicated that they were safety specialists. Two respondents indicated no involvement in investigation, but most (20 of 29) respondents participated in accident investigations, with many of them leading the investigation teams. The remainder were involved with analysing investigation results. Inspection involvement was more diverse. Only three respondents strongly asserted involvement in technical inspections, eighteen indicated involvement in general workplace inspections, with some
leaning to the technical side. Six respondents indicated a more managerial role toward inspections, ensuring that they are performed by others.

**Different parts of the safety job have different demands, e.g.**

Training on WHMIS, regulations, policies, monitoring of regulatory compliance:
- Detail (S), follow up (J), completion (J), logical reasoning (T)

Hazard specific training:
- Detail (S), completion (J), empathy (F), interaction with many people (E* — not necessary to be extraverted because introverts can do interaction, just find it tiring)

Technical inspection:
- Detail (S), logical reasoning (T), completion (J)

Pre-start-up review/failure modes analysis
- Imagination and abstraction (N), logical reasoning (T), closure (J)

Investigation:
- Tolerance of uncertainty (P), imagination and abstraction (N), pattern recognition (N)

**Complementary strengths**

SJ: Detail oriented work with clear norms:
- Regulatory enforcement, follow-up on compliance
- Training for general knowledge (E/I factor)

NT: Imagination/abstraction
- Dealing with potential, theoretical accidents: FMEA
- Deducing patterns from emerging clues in investigation

**Acquiring other skills**

N, S, T and F are four functions that commonly influence problem-solving performance. They represent the opposite ends of two scales. Your two strongest problem-solving functions are in your 4-letter type, and the two weakest are the opposites to them. For example, if you are an ISTJ, then your two strongest functions are S and T and the two weaker functions are N and F. (The book *Do What You Are* contains a discussion of which is likely to be the 3rd function and which is likely to be the 4th function for each of the 16 types.)

We develop two of these functions (one of each pair) early in life and grow into the others over time. If we make the effort to develop them, we tend to work out the wrinkles of our third function in our 20s, and if we continue to strive, we can develop the fourth later in adulthood, e.g., in our 50s. Instinctively, we will tend to prefer the two functions that are natural to us. If we are quite happy with our two functions and disparage the others, e.g., think F’s are too touchy-feely or N’s are too abstract and out-there, etc., then we will struggle (or fail) to develop those. Taking more courses to develop skills we already have may not help us grow much (e.g., N types taking creativity workshops).

Developing all four functions is important because the ideal approach to problem solving uses all four: sensing to acquire information, intuition to recognize patterns in the information, thinking to analyse the information and determine appropriate action, and feeling to plan an acceptable response.

If a person has a weak intuitive function, trying to react intuitively could be little more than jumping to conclusions. While trying to develop intuitive abilities, the other functions must be used to avoid making errors.
Work Performance Significance
Regulatory compliance activities (training, tracking, enforcement) are well-suited to SJ temperament, but we do not know whether these activities dominate because practitioners are SJ, or are people drawn to the field because of these activities. We could wonder whether NT types are deterred from safety careers, or if they specialize.

Investigation benefits from NT temperament, but many practitioners are not N-type. Intuitive problem-solving is commonly used. We might wonder if SJ types need more help in this area. Avoidance of closure seems common in practice. Dominant sensors (ISTJ, ISFJ, ESTP, ESFP) prefer to keep gathering information, not deciding, while dominant intuitives (INTJ, INFJ, ENTP, ENFP) prefer to keep considering the possibilities rather than acting.

Developing Intuition, or “helping SJs become better investigators”
SJ types could aim to become more interested in underlying meanings and what symbols represent, open to using imagination. For instance, seek out and ponder the complexities of cause and effect, think of how people and things are related to each other, the big picture. (If you are an S person, you might have read that list and said to yourself: “what a bunch of airy-fairy...” but that is a confirmation of your S-ness and a validation of the importance of stretching the N-skills.)

Exercises: travel, reading fiction, art; read research papers and take courses in research, practice creative writing, brainstorming, inventing

Developing Sensing, or “helping NTs become better compliance officers”.
NT types can focus on becoming more aware of how things look, sound, smell, taste and feel, more interested in facts and details, precision and accuracy, and more realistic; more concerned with how long projects take and realities of doing them. (NTs probably groaned and thought about how tedious that sounded and how inefficient.)

Exercises: cooking, building, crafts, hiking, gardening, reading non-fiction, attention to fact/number details

Developing Thinking and Feeling
For those who are naturally “F”, thinking strengths can be promoted by considering fairness and equality, even if harmony suffers, and reflecting consciously on cause and effect and consequences of actions; consider competence and efficiency rather than effort.

Exercises: play strategy games, debate and advocate in politics and consumer activism, become aware of own and others’ standards, strive for consistency

For those who are naturally “T”, feeling (empathy) strengths can be developed by showing concern for others’ needs, cultivate friendships, share experiences and feelings.

Exercises: Keep a journal, converse: attend reunions and rekindle past relationships, volunteer, mentor others

Making safety tasks less intuitive or less detailed is not an option
What we can do is promote working to each of our individual strengths using specialization by career choice: divide and conquer. Let the NTs focus on FMEA, design and pre-startup reviews, investigations. Let the SJs focus on control systems such as training, inspection, and coordination. Teamwork allows for a mix of people and in teamwork we can recognize individual strengths.

We can also develop and use job aids. For SJs, research indicates that investigators seem to consider more options when using a structured method. For NTs, we can deliberately tie all detail activities into a
“big picture” to retain interest. We can ensure that we promote a balance in emphasis in the field. The SJ preferences and aptitudes dominate in compliance oriented work. We may need to increase recognition of NT-type contribution to the field (e.g., appreciation for research).

Research journals such as Accident Analysis and Prevention, Safety Science, Journal of Safety Research, International Journal of Industrial Ergonomics, Human Factors and Ergonomics and Manufacturing, and others should be on the radar, if not on the monthly reading list, for all practitioners, particularly those who are “naturally” SJ types.