Why DISC is Easier to Remember Than MBTI

How brain capacity explains why the
DISC Personality Model of Human Behavior is easier to remember
than MBTI (the Myers-Briggs Type Indicator) Model

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Questions about DISC and MBTI

As the Co-Founder of DiscoveyReport.com and a technical developer of DISC profiles, I run into many questions about the DISC Model of Human behavior versus the Myers Briggs Type Indicator (MBTI) on a regular basis. Here are the two essential questions I am most often asked:

- Which personality model is better?
- How is DISC different than MBTI?

Let me say that the answer as to which model is better is up to you. It depends on your application and your preference. I think both models are excellent, but they are very different in the way that they are constructed. Both models have their fans and their skeptics. Regarding how they are basically different, you can view an article that I wrote by clicking on the following link (not detailed, but an overview): http://www.discoveryreport.com/DISC-and-MBTI-Myers-Briggs-Type-Indicator.html

In our experience in working with Personality Insights, Inc. consultants who have been trained in the DISC Model of Human Behavior, we find that our consultants genuinely want to know the main reason to use or recommend DISC vs. MBTI. Our most common answer is that DISC is easier to remember and apply. But there is more to it than that – a lot more

When speaking with someone about MBTI, I will often ask the person, "How did you come out in the MBTI assessment?" The most common answer is, "I can't remember." Granted, some have been able to tell me in wonderful detail how they came out. That is great. But, the fact remains, that most forget or at least struggle to reconstruct part, if not most, of the answer.

I am convinced that the major issue for MBTI is that it is just too hard to remember.

If you have spent much time comparing the two personality models, it appears the reasons MBTI is harder to recall than DISC are fairly intuitive. The more you work with people using both models, the more the differences in the two models emerge. MBTI is widely used and well established and appears, at first glance, to be a more sophisticated model. But, the question of which one to personally use is worth considering further.

I am an electrical engineer by training and background. Therefore, a more substantial answer would be of interest to me if I were asking the question. By the way, I am also happily married to someone with an opposite personality style compared to mine and we have 11 children with a wide variety of personality styles. The topic of personality styles is not theoretical for me – it is a survival skill! But, back to the article!

I am going to propose an answer that is intended to be both practical and helpful but not exhaustive by any means. I am not a psychometric statistician, a psychiatrist, a psychologist or an expert in neuroscience. But, my assertion does require basic math and I have had lots of advanced math training as an engineer. And, while I have a lot of "C traits" (cautious, calculating, critical thinking and careful - based on being reserved and task-oriented in the DISC model), I am going to keep things simple and to the point.

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The Main Proposition:
MBTI is hard to remember compared to
DISC for 3 main reasons:

1. **Research shows that DISC is within the working memory limit of ability to recall a sequence of letters for the vast majority of people whereas MBTI is not. The working memory capacity of most people for recalling a sequence of letters is 6.** DISC requires recalling only 4 letters and is easily remembered, whereas MBTI requires working with 8 letters. As will be demonstrated and documented in this article, the human capacity to work with a sequence of letters drastically decreases between 6 and 7 letters with successful recall falling below 50% after 7 letters. Some research supports a practical limit of 4 letters for most people.

2. **Recalling the relative order of personality traits is much easier with DISC.** This point is relevant if you care about which personality traits are most significant for a given person. At first glance DISC has up to 41 trait combinations whereas MBTI yields up to 1680 combinations.

3. **The visual model of DISC is much easier to comprehend** than the visual model of MBTI (as will be soon demonstrated). The visual model is important for overall recall of personality style and application of the theory behind the model. Thus without the ability to recall the model visually, a person will struggle to reconstruct or apply their assessment results.

All three reasons above may not be important to the reader, and may possibly be refuted. I am not trying to open a debate. I am just trying to provide some scientific substance behind the statement "DISC is easier to remember" and behind the common experience of the MBTI user who says "I can't remember."

To get the full picture, we need to look at 3 basic factors that make MBTI difficult to recall.

Challenge #1: The problem of letter recall

MBTI is based on a set of 4 contrasting traits represented by 8 letters (E, I, S, N, T, F, J, P):

- Extroversion (E) – (I) Introversion
- Sensing (S) – (N) Intuition
- Thinking (T) – (F) Feeling
- Judging (J) – (P) Perception

The resulting personality score is a subset of 4 out of 8 letters. For example: ESTJ or ISFP or ENFP and so on. (And in addition to these 8 letters there is also the consideration of the letters MBTI, making a total of 12 letters which come into play. But, we will not muddy the waters by adding that consideration.)

DISC is based on 2 contrasting traits represented by 4 letters
(D, I, S, C):

The traits are as

- Outgoing(D and I) – Reserved (S and C)
- Task-oriented (D and C) – People-oriented (I and S)

The resulting personality score is represented by 4 letters associated with descriptive adjectives beginning with:

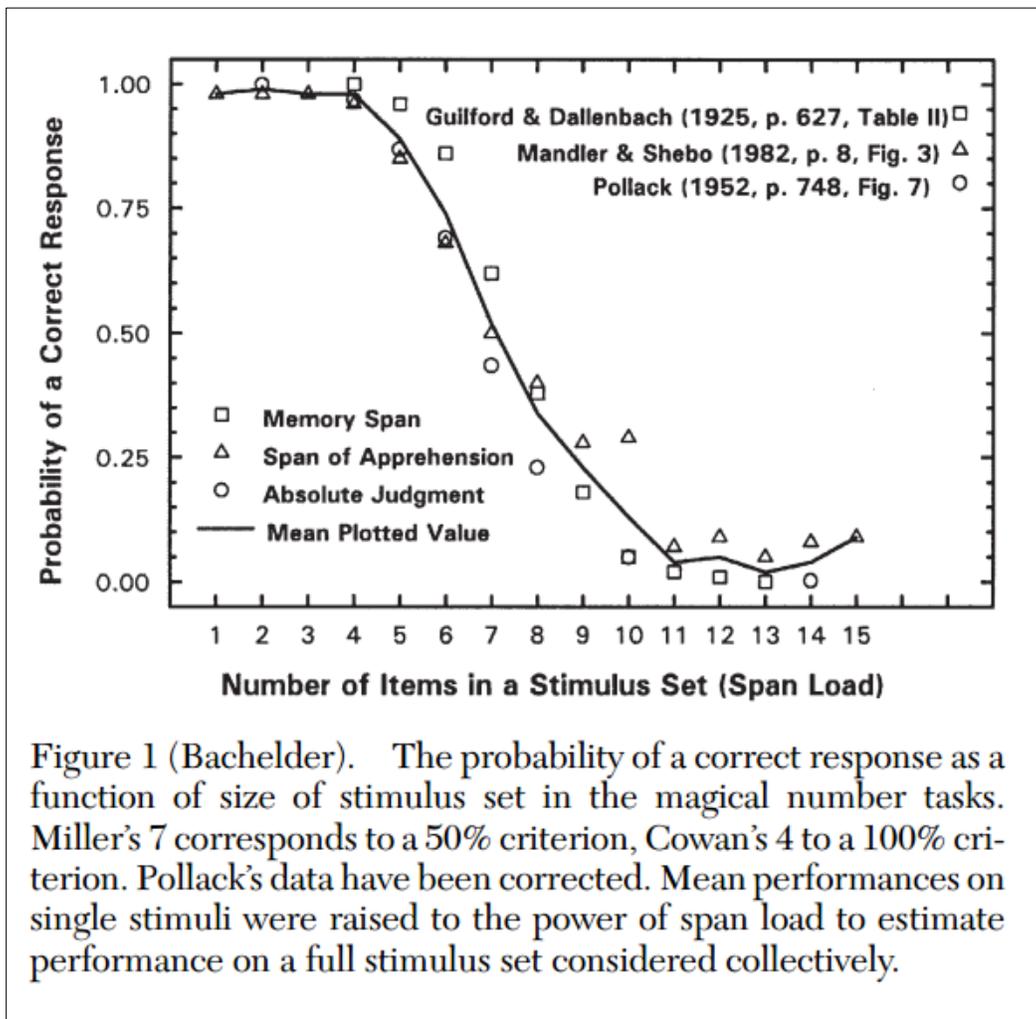- D (Dominant)
- I (Inspiring)
- S (Supportive)
- C (Cautious)

Thus, there is the basic hurdle for MBTI because it involves 8 letters whereas DISC involves 4 letters

There is a famous article written by George Miller of Princeton University entitled: "The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information." He basically came to the conclusion that the basic working limit of memory for most people is about 7 items. Later research showed that **the working limit for letters is about 6 letters**.

For the vast majority of people, MBTI's use of 8 letters introduces a memory hurdle at the very onset whereas the use of 4 letters in DISC is well within memory capacity.

Below is a figure from page 116 of Behavioral and Brain Sciences by Nelson Cowan from the Department of Psychological Sciences, University of Missouri. You will see the ability of a person to recall numbers drops off significantly after 4 items.

Figure 1 (Bachelder). The probability of a correct response as a function of size of stimulus set in the magical number tasks. Miller's 7 corresponds to a 50% criterion, Cowan's 4 to a 100% criterion. Pollack's data have been corrected. Mean performances on single stimuli were raised to the power of span load to estimate performance on a full stimulus set considered collectively.

Challenge #2: The problem of letter order recall

Consider a practical question: **What if the ORDER of the letters (traits) is important?**

Because we are discussing personality traits, I would like to illustrate that the relative strength of the traits (their order of predominance) is significant.

Here is a simple example using DISC where KNOWING the order of the letters (traits) is important.

Suppose that "Joe", is mainly outgoing and task-oriented. We would say that he has "D – Dominant" traits. If, secondarily, Joe is also outgoing and people-oriented, we would also say that he has "I – Inspiring" traits. Assuming that Joe's S and C traits are not very predominant, we could describe Joe as a "D/I" personality style.

The order of the traits is significant. In both traits (D and I) Joe is outgoing. In other words, we might say that Joe is "doubly outgoing." But Joe's behavior is not the same as, "Mary," who is "I/D." Joe's first inclination is to approach situations with a task mindset and his secondary consideration (while significant) is the "people" aspects of the situation. So, Joe is mainly interested in getting something done and may like to interact with others in the process of reaching the goal at hand.

Mary, as an equally out-going "I/D" would have a different approach. She is mainly interested in engaging the same situation with the "people" aspects of the situation first. She may want to have fun or rally the involvement of others as her main goal. Her secondary focus would be to accomplish a goal, but her real energy is derived from INTERACTING with others.

That is an interesting and realistic example. So what? One might say that, in practice, MBTI assessments do not place an important emphasis the order of the traits. Yet, in the DISC model, knowing how to approach someone is best accomplished when you do know the most significant aspects of his or her personality. Although the letter order in MBTI could become useful, context would determine how useful, meaning "useful" in an overall understanding of a person's typical approach in life.

For the sake of discussion, suppose the letter order for MBTI would be desirable. If so, then consider the mathematical probabilities in order to determine just how many letter combinations would be possible:

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DISC has up to 41 combinations based on our model, and here is the math …

The way the assessment works at DiscoveryReport.com, a person can have anywhere from 1 to 3 strong traits that show up above the 50% mark (called the mid-line) on a personality graph. Hence the DISC score is shown as a single letter (D, I, S, or C), (such as D) or two letters (such as I/D), or three letters (such as C/SD).

Here are the formulas used to calculate the number of PERMUTATIONS for "n" (number of objects) taken "r" at a time:

PERMUTATIONS

Order Matters
Repetition Allowed

$$Possibilities = n^r$$

Order Matters
Repetition Not Allowed

$$Possibilities = \frac{n!}{(n-r)!}$$

Remember, permutation means that the order is important. Repetition is not allowed, meaning you cannot use the same object twice or more.

- For single letter results, there are 4! / (4-1)! = 24/6 = 4 permutations
- For two letter results, there are 4! / (4-2)! = 24/2 = 12 permutations
- For three letter results, there are 4! / (4-3)! = 24/1 = 24 permutations
- And a unique permutation we call LEVEL (all 4 traits nearly equal) = 1 permutation

That is 4+12+24+1 = 41 total permutations or letter combinations

Note: other DISC assessment companies may only come up with 4 or 8 or 16 combinations, but DiscoveryReport.com has 41 combinations to provide a more in-depth and accurate assessment.

MBTI results can be ordered into 1680 combinations. Here is the math:

We are looking for the possibilities of 4 letters out of 8 (thus n = 8 and r = 4).
Possibilities = n!/ (n-r)! = 8! / (8-4)! = 40,320 / 24 = 1680 total permutations or letter combinations

Of course, no one has to remember all the combinations. That is not really the point. BUT, you can see that, numerically, **there is a big difference between 41 and 1,680 combinations. That creates a challenge to keep the letters straight and meaningful without some kind of memory "handle"** or an ability to recall the 8 different letters in the MBTI model. It could also be that this difficulty is one reason why an emphasis is not placed on letter order in MBTI.

Which bring us to our next point about how much more difficult it is to reconstruct the MBTI model strictly from memory when compared to reconstructing the DISC model strictly from memory.

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Challenge #3: The problem of model recall: Which behavioral model would you be able to actually draw on a blank sheet of paper (from memory) when coaching someone?
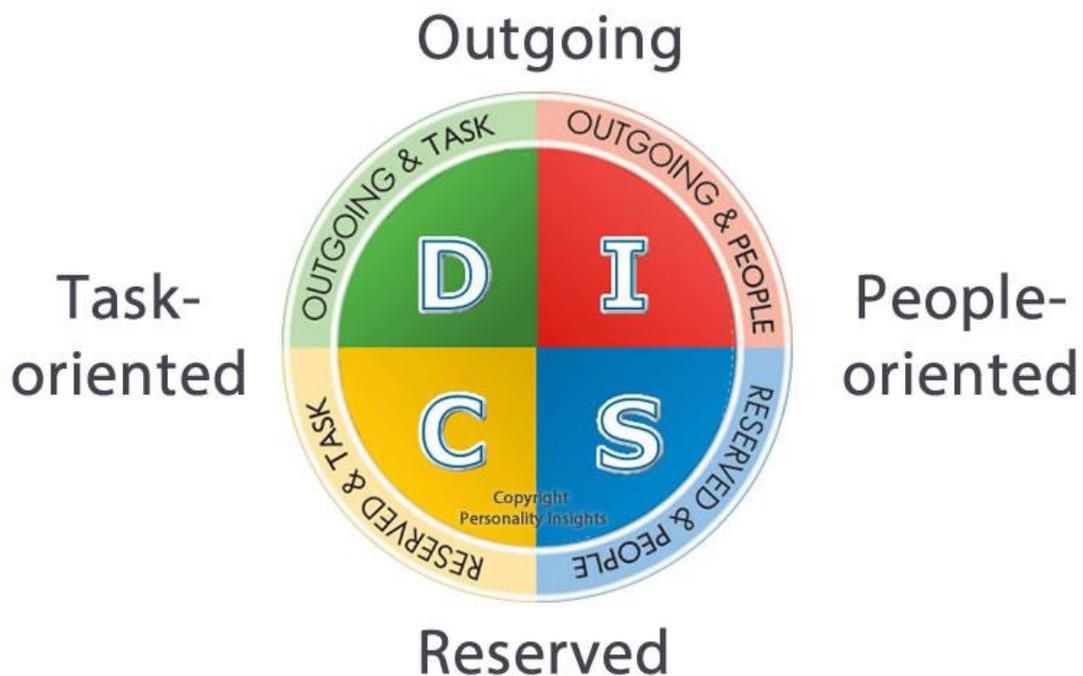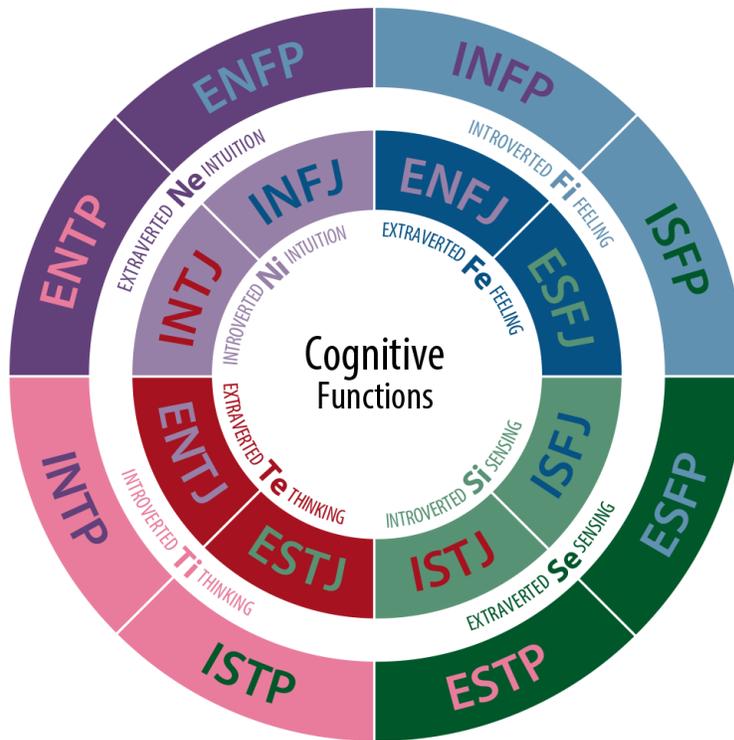
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The MBTI model is more complicated than the DISC model. In education, higher math courses teach students how to derive formulas by understanding mathematical concepts. That can be very useful, because then you can derive (construct from theory) the formulas you need (such as the area of a circle) on your own, instead of having to memorize so many different formulas. Likewise, having a good grasp of a personality model (which is sound) allows a person to see how to apply the model in practical ways without the additional challenge of memorizing letter sequences or even descriptive terms. If the framework for the model can easily be reconstructed, then you have a readily available system which can be useful for application to daily situations. You will no longer be at the mercy of "I can't remember."

In Summary:

The fundamental challenge in using MBTI over DISC is that users have an inherent challenge in recalling their personality style. "I can't remember" is likely based on these 3 main reasons (as previously demonstrated):

1) 8 letters are beyond what most people can recall
2) Recalling the order of the letters if a further complication based on the sheer number of possible combinations of 4 letters chosen from 8 letters.
3) The MBTI visual model requires a good operational knowledge of MBTI theory and a good overall memory of many technical and unique elements.

Finally, both the DISC and MBTI models have helped many people. Both models can be oversimplified and misused to "label" people which should be no one's intent. Both models can be made to be overcomplicated and, as a result, lost as mere data in a file. There are many good tools and instruments at our disposal which can be helpful if used correctly. The end result should be an ongoing ability to understand ourselves better and the ability to relate successfully towards other people. I trust this article will serve as a useful purpose to that end.

Full disclosure:

DiscoveryReport.com and PersonaltyInsights.com offer DISC-based solutions and DISC Profiles online and have an interest in showing the advantages of the DISC Model of Human behavior over other personality models. Nevertheless, this article is offered to highlight research that explains why DISC is easier to remember than the Myers-Briggs Type Indicator (MBTI) based on the memory capacity of most people.

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Websites / References used for this article.

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http://essayweb.net/mathematics/permcomb.shtml

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http://en.wikipedia.org/wiki/The_Magical_Number_Seven,_Plus_or_Minus_Two

Wikipedia entry: Working memory

http://en.wikipedia.org/wiki/Working_memory

The magical number 4 in short-term memory

http://langint.pri.kyoto-u.ac.jp/ai/intra_data/NobuyukiKawai/Kawai-Matsuzawa-Magical_number_5_in_a_chimpanzee.pdf

Myers–Briggs Type Indicator (MBTI)

http://en.wikipedia.org/wiki/Myers%E2%80%93Briggs_Type_Indicator

MBTI vs DISC (DISC compared to Myers-Briggs Type Indicator)

http://www.discoveryreport.com/DISC-and-MBTI-Myers-Briggs-Type-Indicator.html

What is DISC?

http://www.personality-insights.com/7341-2/