**Understanding Your Aptitudes**  21April2025

By John C Vaughan, PhD. Lessons learned from 12 family members over 3 generations taking the **Johnson O’Connor Research Foundation (JOCRF)** tests.

The terms *aptitude* and *talent* are often used interchangeably but have different meanings. Aptitude is more about *potential* to learn something rather than current performance and talent is about *existing ability* – something you are already good at.

If you ask ChatGPT how to figure out your aptitudes, it says to try aptitude tests and first recommendation is: “Johnson O’Connor Aptitude Testing – in-depth (but pricey)”.

Denis Waitley is a national authority on high-performance motivation. He was born in 1933 and is still alive today. He has a doctorate in human behavior. His work included The Psychology of Winning (1979), The Winner’s Edge (1980), and Seeds of Greatness (1985). He consulted on behavior modification, goal-setting and morale enhancement. Denis recommended JOCRF for testing someone’s aptitudes and their influence on personal fulfillment and career success. He felt every high school senior should take the tests before they headed off to college or work.

Pat and I made Double Diamond in 1979, the year I retired from the Air Force and from engineering at age 42. Our 4 children were 15, 13, 10, and 9 at the time. We did as Denis suggested and in 1983 started testing our 4 kids and eventually our 7 grandchildren. And now, at age 87, I even took the aptitude tests myself!

Pat never took the tests. Every morning for the last 2 ½ years I have prayed to her in heaven and I affirm to her that we are still a team – her values and family spirit and my persistence. These are 3 things we most clearly have shown all our lives. I asked JOCRF if their aptitude tests were for any of those 3 things. They said no.

JOCRF test results give you a % score for 25 aptitudes, as well as tell you if you have normal color vision or a deficiency, and if you have a subjective or objective personality. Their tests have changed very little from 1983 to 2025 (42 years).

Here is what is most interesting to me as I compare the family’s 12 Aptitude Profiles.

First, I obviously looked at my scores. I always thought I was Mensa smart (139 IQ), successful, happy, creative, organized, had foresight, scientific aptitude, and a subjective personality. I knew I was shy, lacked ability to think in third dimension, not a good public speaker, didn’t strive to be in charge, etc. At my age I was pretty sure I knew myself. JOCRF showed me some surprisingly different things.

**Surprise #1. My scores averaged 25% -- the lowest in the family**! That means on average 75% of the people ever tested by JOCRF scored higher. This might not be a national average because not everyone spends the time to go to a JOCRF Center to be tested, or spends the money ($900). I scored “high” (above 70 percentile) in 2 of 25 tests, and my average test score was “low” (below 30%). No one else in the family averaged below 35%.

**Surprise #2.** I was not the highest in the family for any of the tests. My **Visual Design 1** was 75%, but one family member had 99%. Even my highest score (**Numerical Reasoning** at 95%), was exceeded by someone at 99%.

**Surprise #3**. I have “Moderate color deficiency”. No one else had **Red-Green Vision** problems. I never thought I had any deficiency. My mom’s brother was color blind and told me that he could simply see that the top light on a stop light was illuminated. Fortunately, they are all standardized now that red is on top.

As President of our Condo Homeowners Association I was recently asked: “What color shingles?” I was given 4 choices of grayish for the new shingles. I said I didn’t know or care. They said: “The contractor suggests..”, I interrupted and said “fine”. Now I know why I don’t have much of an opinion on colors.

**Surprise #4.** I found out that being good at chess and serving honorably for 2 years in the Advanced Plans Office at the Air Force Rocket Propulsion Laboratory does not mean I have **Foresight** (I scored only 10%). I was the only one in family with low Foresight, the rest averaged 71% (high) with a 100%, 95%, 90%, and two 85%.

High-Foresight examinees are more likely to earn undergraduate degrees and to pursue graduate studies, yet I have a PhD in Rocket Propulsion from Purdue?! Obviously I am coping somehow. **Foresight** measures an ability to see possibilities. It suggests a need for long-term goals, but does not automatically provide them. High Foresight people can often see a way around obstacles. They report high levels of creative achievement. JOCRF advises they work towards entrepreneurship and leadership, take classes for Personal Development, and stay busy in retirement – all things I do well above average.

JOCRF says people with low Foresight should make lists and cross out each completed item – something I do daily. Also I should focus on the here and now, and consult multiple sources – which I now realize that I do, naturally.

**Surprise #5.** My **Ideaphoria** is only 5%, whereas the rest of the family averaged 64%! **Ideaphoria** is an aptitude used in brainstorming, educating, writing, and innovating – which are things I like to do! Also engineers who scored high in Ideaphoria are more likely to hold patents for designs and inventions, but I have 5 inventions and one patent! But JOCRF does say that engineers low in Ideaphoria reported higher levels of career satisfaction. Scores by themselves can be misleading. JOCRF says low Ideaphoria can be an asset in the right environment. Ideas may not come as rapidly, but you still have ideas and can brainstorm with a group. Low means you are well suited for roles where focus is the key. In some fields high Ideaphoria can be a distraction rather than a help.

**Surprise #6.** I knew I have always been shy. When we would go to a cocktail party Pat would naturally thrive and the friend I was closest to would be the appetizer table or the pictures on the wall. Hence, I thought I was a Subjective Personality like 30% to 35% of the population is (and 33% of our family), but my personality is fairly high Objective.

**Subjective Personalities** go for highly specialized jobs where they are the expert. They are naturally hard workers, which I felt I was – but I like my “time off”. Also I turned down a fine offer by a 2 star General to continue my PhD area and instead tried something different, so I guess I didn’t want to be that much of an expert – and I did not want to work the 60 hours/week that this expert job might have required.

Instead, being an Objective, I am surprised that I prefer to collaborate with others – never thought of that, but true. **Objective Personalities** like a variety of tasks and like a team where everyone has a way to contribute. We prefer to start a business with a partner (sponsor). I enjoy holding weekly meetings and bouncing ideas off others. I naturally customize information for different audiences. I enjoy work that impacts a large number of people.

Finally, I understood my personality when I read the paragraph on “The **Objective Introvert**” (page 103). The two words seem inconsistent. I don’t identify as a natural leader and I prefer to give credit to the team. I enjoy joining a team of like-minded people. So I fit as an Objective Introvert. JOCRF does not test for introvert vs extrovert.

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There were no more big surprises, but I understand myself better in these areas:

1. My PhD dissertation is titled “A two dimensional study of the jet interaction and external burning of …”. I could never see well in that **third dimension**, and JOCRF proved that with their **Structural Visualization** (spatial thinking) tests. Both **Wiggley Block** and **Paper Folding** were fascinating and quite challenging for me. I scored just above low (35%) in both. Many STEM occupations benefit from having this aptitude, so how I got along in Mechanical Engineering is a bit of a mystery. In fact, I arbitrarily picked Mechanical Engineering before attending Virginia Tech, based on my father’s recommendation. I feel now I probably would have been more comfortable in another field.

Some of the most well-known names in science like Albert Einstein, Thomas Edison, and Nikola Tesla all described their creative processes as including visualization. A study of Albert Einstein’s brain even showed that his parietal lobes – the part of the brain which is linked to spatial thinking – were actually 15% larger than the average person’s. My lobes being smaller than average must have left room for other things!

When the US military crashed the first helicopter in the raid to get Usama Bin Laden, by planning the landing inside a small, high walled compound, they forgot to ask a 3D thinker if that was a good flow field.

2. I have always observed (and wondered why) I am good at talks that are translated. Now I see that my slow **Ideaphoria** (5%) is not a problem because I have time to think while the translator is talking. Otherwise I say things like: uh, so, ah, um, or slightly panic while I am filling in the gap, waiting for the words to come. I have also been helped by going thru the Dale Carnegie Course several times and learning how to effectively tell stories and from his book on how to stop worrying.

3. Pat could always remember numbers. I was not that good, and wrote them down, saying “why should I remember it when it is here in my Franklin Planner. Now I see that it wasn’t that remembering was a trivial thing to do, I am simply not good at **Number** **Memory (5%).**

4. I thought I would not be too good at **Finger Dexterity** (30%) or **Tweezer Dexterity** (15%), and I was right. I was 2nd lowest in family in both aptitudes. In fact, the worst aptitude the entire family has is Tweezer Dexterity, no dentists or watch repair people should be in this group. When I took these 2 tests and the Number Facility test I thought I did well, but JOCRF said I did these tests correctly, but slowly. They measure speed.

5. Low **Vocabulary** (20%) was proven to me earlier in life when I took the Graduate Record Exam in April 1967, when I was 29 years old and had a Master’s degree in Astronautics. They tested Qualitative Aptitude and Verbal Aptitude. I got a perfect score in Qualitative Aptitude which got me into Mensa and to my assignment for 2 years 9 months at Purdue. But they told me that my Verbal Aptitude score was equal to a junior in High School. I never read any books in High School, just Classic Comics.

6. I also test low (10%) in **Silograms (word learning).** High Silogram aptitude correlates to success in foreign languages, and I knew that wasn’t me. But high Silograms also means you can easily work with international populations, and give presentations – which I have done well at – thanks to nice translators and many success-oriented people around the world wanting to speak English.

7. **Grip Strength, Left and Right**, does not mean what I thought. Low (5% left and 10% right) tells me I don’t have nervous energy, or physical restlessness, and I am happy to be working indoors in advertising, higher education, computing, accounting, etc.

8. The **two Convergent Thinking aptitude tests are Inductive Reasoning and Analytical Reasoning.** These aptitudes are used throughout all fields of work but their focus is on speed. For example, all doctors or lawyers do not need **Inductive Reasoning** as much as an Emergency Room doctor or a trial lawyer. Those with high Inductive Reasoning are quick on their feet, connect the dots, and solve problem fast. Many people can be just as accurate, but not as fast as an Inductive Reasoner. Only one person in the family scored above 60% with this aptitude, they scored 95%.

The **Analytical Reasoning** aptitude is to be able to quickly organize ideas and concepts in your mind to solve a problem. Some people who score low can still be organized, but they rely on external order like a day planner or calendar. I scored low on both aptitudes (13% and 25%) but I have never worked where I needed to be fast on my feet and I fell in love with Franklin Planner the year it was introduced, decades ago.

9. **Numerical Reasoning** indicates strength in problem solving with numbers, finding trends or patterns. Wow, I got 95% - still not the highest, a gkid got 99%. Numerical Reasoning seems to be connected to general reasoning according to JOCRF.

10. **Numerical Facility** measures the ability to do arithmetic quickly and accurately in your head. I was relaxed and confident with this test, and JOCRF said I got all the answers correct, but I wasn’t especially fast – scoring 45% - and another gkid got 99%.

11. **Graphoria** measures perceptual speed and accuracy. It helps in accounting, playing video games, taking detailed notes, or scanning over documents for mistakes. Every job involves some element of paperwork or record keeping. I scored 30%, but a third gkid scored 99%.

12. The three auditory tests are **Tonal Memory**, **Pitch Discrimination**, and **Rhythm** **Memory**. I didn’t shine with scores of 5%, 25%, and 5%. I was never introduced to possibly playing a musical instrument, and that probably would not have worked out well anyway. Tonal is the central music aptitude. Some people remember music after the first listen. With the Pitch aptitude, people can tell if something is out of tune, which has more unique applications than one would first imagine. Rhythm is not only important for playing certain rhythm instruments, but it also applies to sports, writing, photography, visual arts, and verbal communications.

It is relatively rare to score high on all three of these auditory tests. 62% of clients score high on at least one auditory test; 33% score high on two; but only 12% score high on all three. Professional musicians tend to score high in all three, followed by technicians working in the audiovisual space. Our family had one gkid score high on all three, including 99% in Pitch.

13. The **five Visual aptitude tests** are **Memory for Design**, **Observation**, **Color Discrimination**, **Visual Designs 1**, and **Visual Designs 2**. I was low scoring in the first three, but 75% and 45% in Visual Design 1 and 2. These five aptitudes play a part in art and design, but also in fields that rely on visual information or details. **Memory for** **Design** is a visual memory for information you can see – architecture, fashion, maps, web design, page layout. **Observation** measures ability to notice and remember small visual details. This helps for quality control, but also art fields, and monitoring behavior. **Color Discrimination** is the ability to see fine distinctions between very similar hues (simply not my cup of tea). Good for painters, artists, and in the many design-related fields. **Visual Designs 1 and 2** simply measure your preference in two areas of design composition. An average score simply indicates a lack of strong opinion. High in Visual Designs 1 or 1 and 2 means your preferences are for “simple” and are in line with professional artists. High in Visual Designs 2 means a preference for asymmetrical designs favored by the fine art subset. Neither test conveys much meaning to me.

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**Generational Differences for our 1-4-7 group.**

My average for all tests was only 25%, compared to 47% for both of the other groups (4 kids and 7 grandkids). The only major differences in average scores for different aptitudes between generations were:

My 95% **Numerical Reasoning** vs 65% kids and 31% gkids – but one gkid scored 99%.

My 5% **Tonal Memory** vs 28% kids and 59% gkids – and one gkid scored 99%.

My 15% **Tweezer Dexterity** vs 21% kids and 44% gkids – and highest only 65%.

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**Bottom Line on Aptitudes.**

Everyone in our family was high (>70%) in 1 or more aptitudes. Most careers can be done well with one aptitude. I have enjoyed a long, healthy, happy life so far with the lowest Aptitude scores in the family. Also, I have done well in areas where I have a low aptitude. I now understand myself better and I seem to have adjusted well when situations didn’t match up with my aptitudes.

JOCRF doesn’t test attitude, support from others, cheerleaders, luck, or love.

I trust that the JOCRF testing has been worth it to all members of my immediate family. Maybe even this mini-paper adds some benefit – all of you now know you have more aptitudes than I have! You are all stars in my eyes, and you all seem healthy, happy, and doing great. JOCRF measures and helps us all, but they don’t measure everything. I know you will succeed and I love you.

Dad and GPaV

To help you further understand who you are see [www.pvbv.com/commentary](http://www.pvbv.com/commentary) .The 4 Personality Types. I am a Comprehender and Pat was a Controller, close to Entertainer.

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See Luke 18:15-17. *People were bringing even infants to Jesus that he might touch them, and when the disciples saw this, they rebuked them. Jesus, however, called the children to himself and said, “Let the children come to me and do not prevent them; for the kingdom of God belongs to such as these. Amen, I say to you, whoever does not accept the kingdom of God like a child will not enter it.”*

This Gospel passage appears with some differences in Matthew, Mark and Luke, but is never read on a Sunday in the Catholic Church. I wonder why. The message is a real **pivotal** **truth (Bottom Line)** – all we have is a gift from God. **He wanted everyone to know that the way a mother loves these little ones – that’s how God loves us.**

The phrase **"pivotal truth"** refers to a fundamental or essential fact that significantly influences a situation, belief system, or decision-making process. It's the kind of truth that everything else hinges on — when recognized, it shifts understanding or changes the course of action.

For example:

* In science, the **pivotal truth** of gravity explains much of how the physical world operates.
* In a personal relationship, a **pivotal truth** might be realizing that trust has been broken.
* In history, a **pivotal truth** like "all humans are created equal" can become the foundation for societal change.

All is a gift from God

**ChatGPT said:**

The statement “**All is a gift from God**” is a deeply **spiritual** **pivotal truth** for many people. It reflects a worldview rooted in **gratitude, humility, and dependence** — the idea that everything we have (life, relationships, nature, opportunities, even challenges) is not earned or owned, but given.

This belief can reshape how someone:

* **Approaches suffering** — seeing it as part of a larger divine purpose.
* **Handles success** — with humility rather than pride.
* **Relates to others** — with compassion, generosity, and reverence.
* **Lives daily life** — with deep gratitude rather than entitlement.

It’s also a truth that cuts across many faith traditions, especially in Christianity, where grace — unearned favor — is central.