Here’s What Personality Sounds Like

Insights Mined From More Than One Billion Conversations
Why do people do what they do?

From Hippocrates’s four humors to this morning’s “Which Game of Thrones Character Are You?” Facebook quiz, mankind has spent millennia studying, distilling and categorizing human behavior in an attempt to answer that fundamental question—with varying degrees of sincerity and rigor.

Yet solid, scientifically-validated personality insight does exist, and the pursuit of it is deeply worthwhile, not only for individuals seeking to better understand themselves, their friends and their loved ones but, as it turns out, for organizations and enterprises looking to facilitate more meaningful, emotionally-resonant human experiences.

After all, personality determines people’s likes and dislikes, what causes them to feel valued or rejected, included or alienated, known or unknown, and feelings have material consequences.

Forrester, for example, found that emotion was the most important factor influencing customer loyalty in 17 out of 18 industries studied. And a 2015 survey suggests that emotional connections with coworkers are the primary driver of employees’ decisions to stay with or leave a job.

Research has also shown that, with few exceptions, personality style remains fixed and consistent throughout one’s life and across the spectrum of emotion and experience, making personality a means of knowing not only why people do what they do, but what they’re going to do next.

Over the past decade, Mattersight has listened to and analyzed over one billion recorded consumer conversations with an ear tuned to personality, in order to help organizations to better understand and improve their interactions.

Fueled by the hypothesis that personality is both a predictor of behavior and a driver of organizational value, this analysis has yielded two key findings: personality is both audible and actionable.

PERSONALITY IS...

1 AUDIBLE

Most personality typologies rely on subject feedback obtained via survey or other method. Such feedback is both burdensome to solicit and vulnerable to subjectivity. This analysis demonstrates that it is possible to quickly, objectively and reliably identify someone’s personality style through the analysis of passively-obtained spoken language alone.

2 ACTIONABLE

Recognizing the importance of personality, learning how to identify it and taking steps to accommodate it yields more than just emotional and social benefits. It also correlates directly to improved outcomes. Employee engagement, collaboration and retention, customer satisfaction, sales and more can all be significantly impacted by a focus on personality.

LAB NOTES

CONCEPT
Instinct and anecdotal experience dictate that personality provides unique insight into human behavior. The rise of big data and analytics has validated personality understanding as a worthwhile pursuit for organizations seeking to understand and impact the quality of their interactions.

METHOD & MATERIALS
Cutting-edge advances in speech analytics, leveraged with a language-based behavioral model and state-of-the-art recording capabilities, now allow for the rapid interpretation of passively-obtained unstructured call data and the creation of models that accurately predict personality.

RESULTS
Understanding the characteristics and core needs of various personality styles, and implementing systems and processes to identify and appropriately respond to linguistically-advertised personality clues, can help to drive measurably improved outcomes across enterprises.
THE SCIENCE OF LANGUAGE MINING

The behavioral theory applied in this analytical process is the Process Communication Model® (PCM). First developed by clinical psychologist Dr. Taibi Kahler in the 1970s, it is the only linguistic-based behavioral model in existence. As such, PCM enables personality to be accurately assessed exclusively through analysis of observed or passively-obtained language, as opposed to the self-reported or survey-based response data required by other typologies, such as the Myers-Briggs Type Indicator® and DiSC®. It is supported by more than 30 years of study, research and practical application by clinicians, educators, government agencies (including NASA) and businesses worldwide.

PCM identifies six personality categories, each with its own distinct behavioral patterns, psychological drivers and communication preferences.

While aspects of all six styles are present within each of us to a greater or lesser extent, a preference for one particular style is revealed at an early age. This “core” style is consistently advertised through our word choices, language patterns and syntax.

Mattersight’s behavioral and data science teams have innovated the application of PCM by predicting personality from unstructured data sets.

Leveraging open-and closed-vocabulary analytic approaches on contact center conversations, the ability to accurately predict personality has been bolstered over the years by:

- **50,000+ hours** of conversation listening and coding from behavioral scientists
- **125,000+** customer service and telesales agents taking a PCM assessment
- **1B+ conversations** recorded and transcribed in high-fidelity stereo for unsupervised machine learning

This combination of skill, experience and data has enabled the creation of algorithms that rapidly interpret massive volumes of unstructured data from conversations and produce a comprehensive catalog of more than 20,000 distinct words, phrases and other linguistic features that relate to personality.

Looking at this personality information in conjunction with all the available speech data, a predictive model establishes an order of personality components for the speaker by weighing a number of factors such as timing, word position, quantity, and interaction between the parties.

In addition to being accurate and precise in lab settings, highlights of this model in real-world application include:

- Classifying personality within the first 30 seconds of analyzed speech, making a better guess than random
- Consistently classifying repeat speakers with 85% accuracy, increasing with consecutive conversations
- Reaching 90% confidence with 5 minutes of analyzed speech

TWO WAYS TO ANALYZE CONVERSATION

In order to accurately understand and categorize linguistic events within recorded calls, data scientists leverage two well-known analytical approaches:

**CLOSED VOCABULARY**

(aka Top-Down Logic or Deductive Reasoning)

- Traditional and manual
- Relies on *a priori* word or category judgments⁴
- Backed by theory and experience

**OPEN VOCABULARY**

(aka Bottom-Up Logic or Inductive Reasoning)

- Newer and automated⁵
- Mines for dominant words or phrases in an open-ended dataset
- Backed by data science⁶, allows for deeper discovery and more precision

Each of these approaches has distinct strengths and limitations. Employing both closes the gaps and significantly elevates the output.⁷
PERSONALITY IS AUDIBLE

The identification of personality contains within it a wealth of information that can be used to accurately anticipate future behavior. Knowing an individual’s personality style, one can also predict, among other things:

- What is most important to that person
- The factors that drive and influence behavior
- Likely reactions to specific events and experiences
- The language that will elicit most positive and negative responses

A sample of these linguistic features are visualized below, with the size of the text representing the relative importance of the feature. For example, “basically” and “makes sense” are both predictors of Organizers, but with “basically” being twice as important in terms of frequency and strength of correlation.

### A SAMPLE OF WORDS AND PHRASES THAT PREDICT PERSONALITY

- **Organizer**
- **Connector**
- **Advisor**
- **Original**
- **Doer**
- **Dreamer**

### THE SIX PERSONALITY STYLES

1. **The Organizer**
   - Logical, responsible and organized; process-oriented

2. **The Connector**
   - Compassionate, sensitive and warm; relationship-focused

3. **The Advisor**
   - Dedicated, observant and conscientious; commitment-driven

4. **The Original**
   - Spontaneous, creative and playful; contact-seeking

5. **The Doer**
   - Adaptable, persuasive and charming; action-oriented

6. **The Dreamer**
   - Calm, imaginative and reflective; solitude-seeking
THE SOUND OF A CONNECTOR
A Connector is the archetypical “people person”: caring, intuitive, attentive to relationships and attuned to the feelings of others. Connectors are driven by a core need for recognition of person and for sensory gratification.

Connectors’ language expresses their sensitivity and concern for others. They frequently reference their feeling states and share personal anecdotes. In distress, Connectors can become confused and overwhelmed.

THE SOUND OF AN ORGANIZER
Organizers prioritize objective facts and data, clearly and efficiently presented. They are driven by a core need for recognition of their work and for time structure.

Organizers’ word choices and language patterns evidence their preference for logic, process, sequence, structure and intellectual competence. In distress, their language expresses intolerance for ineptitude and a tendency towards over-control.

THE SOUNDS OF PERSONALITY
Popular linguistic personality advertisements culled from 1B+ recorded calls

COMMON ORGANIZER
Linguistic Advertisements

“I think that’s a good idea.”

“That’s a good plan.”

“I understand what you’re saying.”

“That makes sense.”

“That doesn’t make any sense.”

“That’s stupid.”

“Well, whose job is it anyway?”

“If it’s going to be done right, I have to do it myself.”

COMMON CONNECTOR
Linguistic Advertisements

“I feel...”

“This is too much...”

“In my heart of hearts...”

“I just don’t know what to do...”

“I’m so happy... sad... excited... scared...”

“You’ve been wonderful.”

“I’m so relieved. You seem to really care...”

“Won’t you just help me?”

“Why does it have to be so confusing?”
THE SOUND OF AN ADVISOR
Advisors prioritize their values and judgment over hard data. Their driving need is for recognition of their convictions and of their work’s contribution to a greater good.

Advisors employ firm, formal, deliberate, situationally-appropriate word choices and language patterns, which evidence their conscientiousness, values, beliefs and sense of right and wrong. In distress, this language can become indignant.

THE SOUND OF AN ORIGINAL
People with the Original personality style are fun, non-conformist, out-of-the-box thinkers. They are driven by a core need for contact: stimulation and fun interaction.

Originals’ language patterns communicate their preference for spontaneity, fun, ease and informality, and their tendency toward extreme reactions. In distress, they struggle, complain and deflect blame for their circumstances onto other people. Originals will use more and more profanity and slang as distress escalates, and their tone can become vengeful.

COMMON ADVISOR
Linguistic Advertisements

“In my opinion...”
“The truth is...”
“I believe this is right.”
“Don’t you believe in anything?”
“What’s wrong with you, anyway?”
“You people should...”
“We should...” “You should...”
“We must...” “We ought to...”
“The important thing for us to focus upon...”

COMMON ORIGINAL
Linguistic Advertisements

“This is great!” “This is fantastic!”
“Brilliant” “Horrible...” “Cool...”
“You’re awesome!”
“Oh, gosh, this is sooooooooooooooooooo bad....”
“Yes, but...”
“You’ll be sorry!”
“It’s not my fault!”
THE SOUND OF A DOER
Doers thrive on adrenaline and are experts at getting others to do what they want them to do. They are driven by a core need for incidence: short bursts of intense, high-value action.

The Doer’s word choices and language patterns reflect their preference for action over planning, and their appetite for risk and quick results over deliberation. In distress, their language can become manipulative or bullying.

THE SOUND OF A DREAMER
Dreamers live in a rich internal world. They’re driven by a need for solitude, and require very little external stimulation.

Dreamers are people of few words. When they do speak, their language is literal, specific, requesting and impersonal, with little variation in tone. In distress, it becomes fragmented and disorganized. Ideas are begun but not completed, and questions are left dangling in the hope the other party will pick up and take over.

COMMON DOER
Linguistic Advertisements

“Ready, aim, fire.”
“I was born ready.”
“Let’s do it!”
“Let’s go... let’s make it happen, bro!”
“Hit me with your best shot!”
“Bottom-line it for me.”
“Come on... all ya gotta do is just look it up and take it off my bill!”
“Pedal to the metal”
“Damn the torpedoes! Straight ahead!”

COMMON DREAMER
Linguistic Advertisements

“I imagine...”
“It’s just a maze. I don’t know where to begin.”
“There are so many possibilities.”
“I’ve been going over that in my mind...”
PERSONALITY IS ACTIONABLE

According to a Gartner report, matching customer and employee personalities provides transformational benefit to organizations. Indeed, any enterprise whose success is dependent in whole or in part on positive, productive human relationships will benefit from a concentrated focus on and responsiveness to personality.

There are several ways organizations can begin to incorporate a focus on and responsiveness to personality into their vision and practices:

1. **FIND OUT WHERE PEOPLE ARE TALKING TO YOU**
   The first step in analyzing language for personality is finding it. Any organization, no matter how large or small, has a repository of language they can access to begin immediately studying and understanding the personalities of those they interact with. The important thing to focus on in these analyses is not what is said, but how it is said, keeping in mind the styles and linguistic advertisements described above.

   Easily-accessible sources of linguistic-based personality advertisements include:

   - Call recordings
   - Voicemail messages
   - Email
   - Social media postings
   - Texts
   - Survey feedback
   - Employee reviews

2. **RECOGNIZE THE DISTRESS POINTS IN YOUR CUSTOMER OR EMPLOYEE JOURNEY**
   When circumstances are important, uncertain or unknown, personality advertisements are clearer and more amplified. Identifying where and why people experience distress in their interactions with your organization will strengthen your ability to “hear” personality and quickly distinguish one style from another, as well as illuminate areas that are ripe for process or personnel improvements.

   Common distress triggers include:

   - The initial moments of a service interaction
   - Unclear or confusing website navigation
   - Long hold or wait times
   - Interviews
   - Complex forms

3. **ALIGN**
   messaging and customer experience design with personality targets

4. **LEVERAGE**
   personality in talent management and organizational culture initiatives
3 ALIGN ADVERTISING AND MARKETING MESSAGING WITH PERSONALITY TARGETS

People respond to language that resonates with their core personality style and meets their core psychological needs. Creating customized campaigns to target specific personality styles, for example, or incorporating appeals to multiple styles in a single piece of advertising, can increase response and strengthen customers’ emotional connection to a brand.

Examples of personality-based targeting include:

- Concise, bulleted lists; clear action steps (Organizers)
- Inclusive language; emphasis on benefits to others (Connectors)
- Evidence of organizational integrity; third-party testimonials (Advisors)
- Casual language; emphasis on ease and fun (Originals)
- Appeal to ego; emphasis on bottom-line results (Doer)
- Direct, instructive language; appeal to imagination (Dreamer)

4 LEVERAGE PERSONALITY IN TALENT MANAGEMENT AND ORGANIZATIONAL CULTURE INITIATIVES

The above-referenced survey found that 80% of job-seekers would take one job over another based purely on personal connections formed during the interview process, and that two-thirds of top-performing employees have stayed at jobs that are otherwise unsatisfying due to the strength and positivity of their emotional relationships with coworkers2.

Prioritizing personality in the workplace is a simple and powerful way to make employees feel known and valued, and facilitate the kinds of emotional connections that can attract and retain top talent.

To facilitate a more emotionally-connected workplace, employers can:

- Ensure physical environments include features that accommodate the needs of all personality styles, e.g., designated spaces for both solitude and collaboration, opportunities for fun and stimulation.
- Assess candidate personalities as a means of inclusion (“What can we do to elicit her best performance?”) vs. exclusion (“His style isn’t a good fit.”)
- Make personality awareness, transparency and understanding among employees an active part of the culture.

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