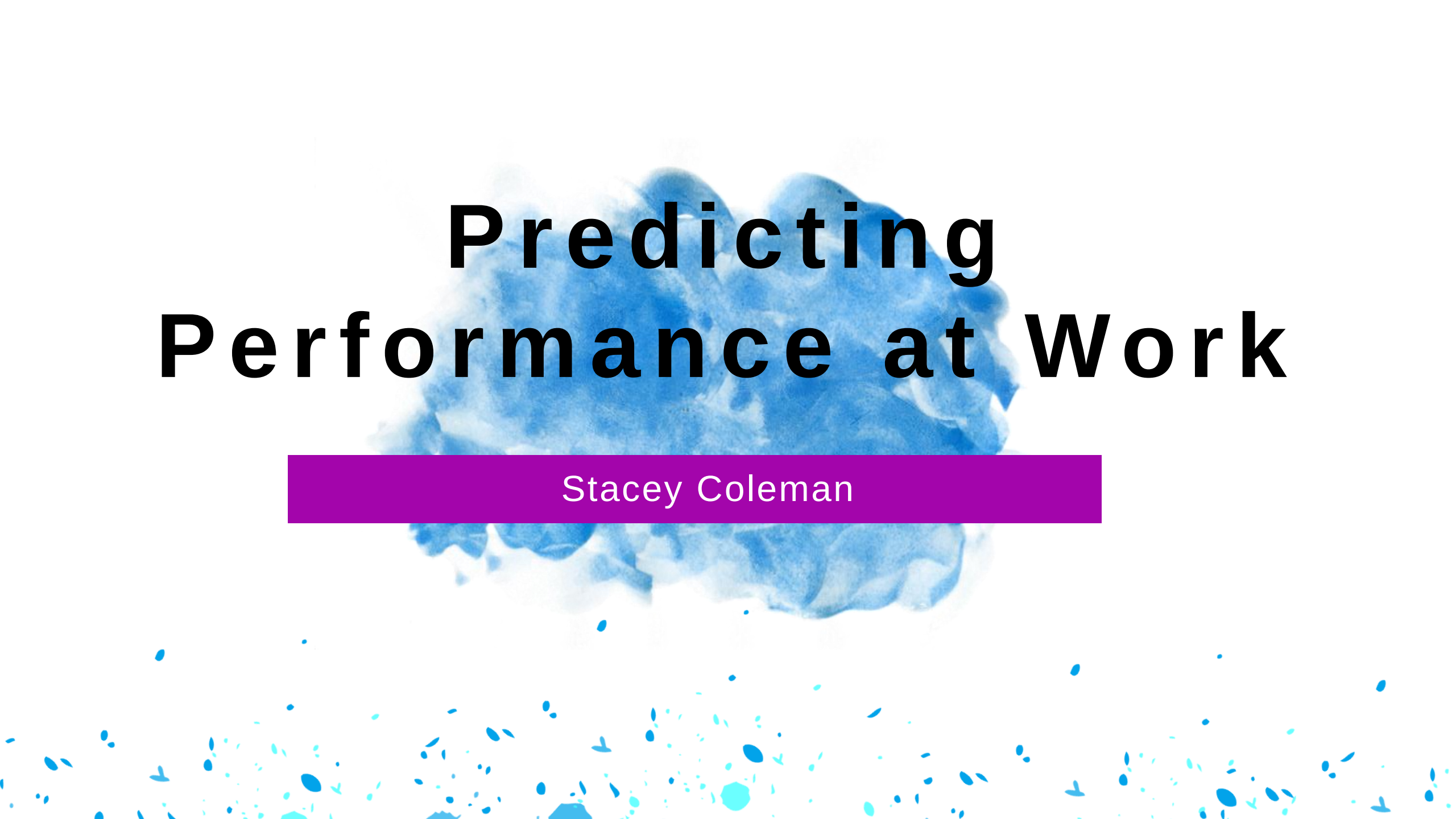


A large, irregular blue watercolor splash is centered in the upper half of the image. The bottom of the image is filled with a dense pattern of small, light blue and cyan dots and splatters, creating a textured, bubbly effect.

Predicting Performance at Work

Stacey Coleman

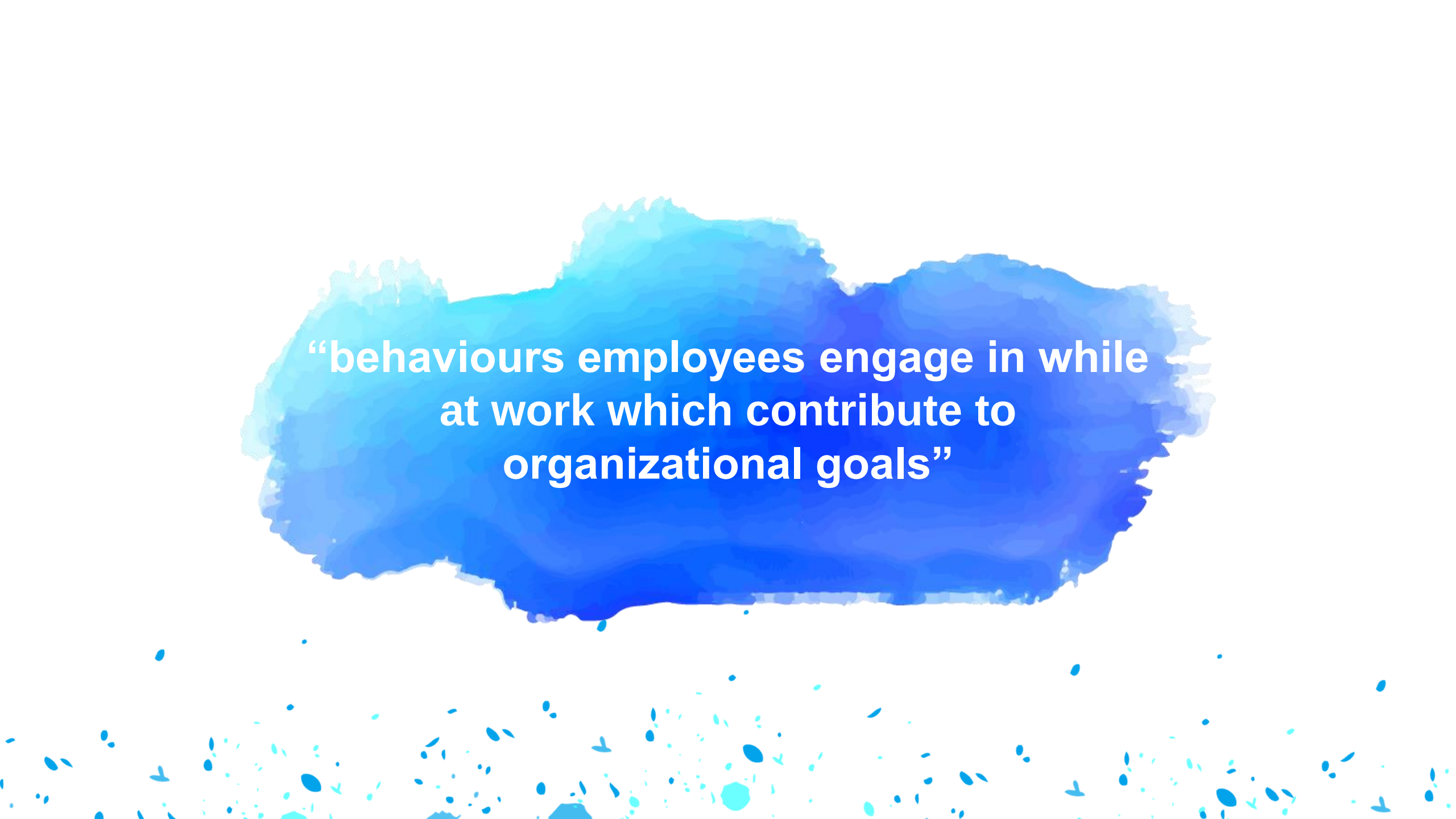


Lecture Outline

- Introduction to workplace performance
- How can we predict performance using:
 - Cognitive ability
 - Personality
- Issues with the use of psychometrics



**What do we
mean by
performance at
work?**

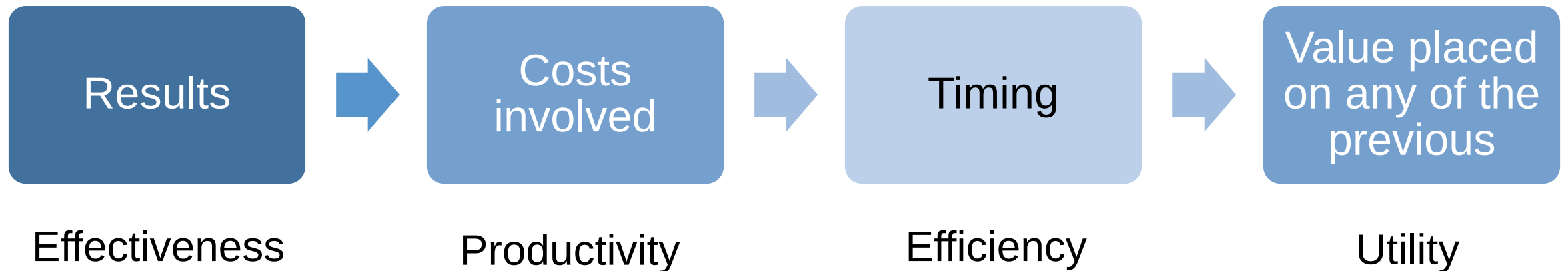


**“behaviours employees engage in while
at work which contribute to
organizational goals”**

Job Performance

Job Performance should be about the behaviours that are within the control of the employee (Jex & Britt, 2008)

It should not be about...



Job Performance

Campbell (1990; 1994)

Identified a set of 8 common components of job performance.

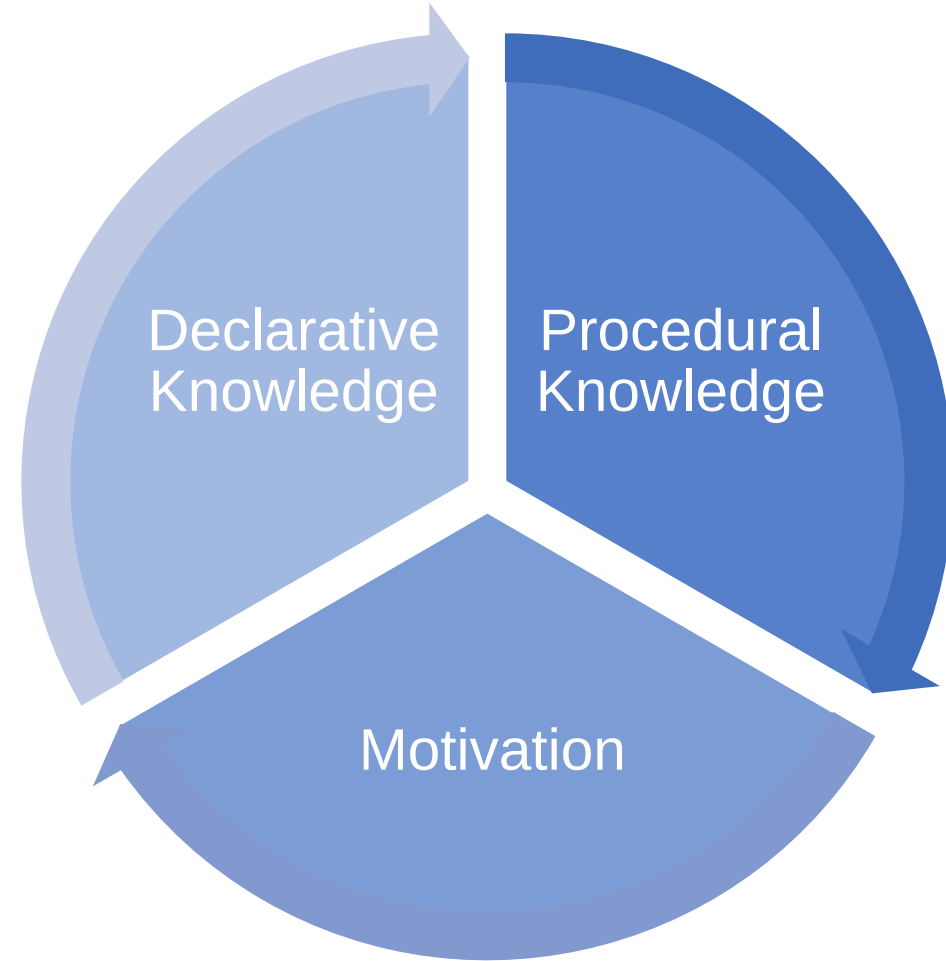
Some of these (*) deemed to be important for **all job roles**.

Campbell (1990) *important for all job roles
Job-specific 'core' task proficiency*
Non-job specific proficiency
Written and oral communication
Demonstrating effort*
Maintaining discipline*
Facilitating peer / team performance
Supervision / leadership
Management / administration

Job Performance

Campbell (1990; 1994)

Job performance is the result of the interaction between three factors;



Job Performance

Ability to **define** job performance is important because it impacts on **HOW** performance is measured



Accuracy?



Type of rating?





How can we predict performance?

Three stand out predictors of
performance;

- ✓ General Mental (Cognitive) Ability
- ✓ Personality traits
- ✓ Past behaviour and experience

PLUS!

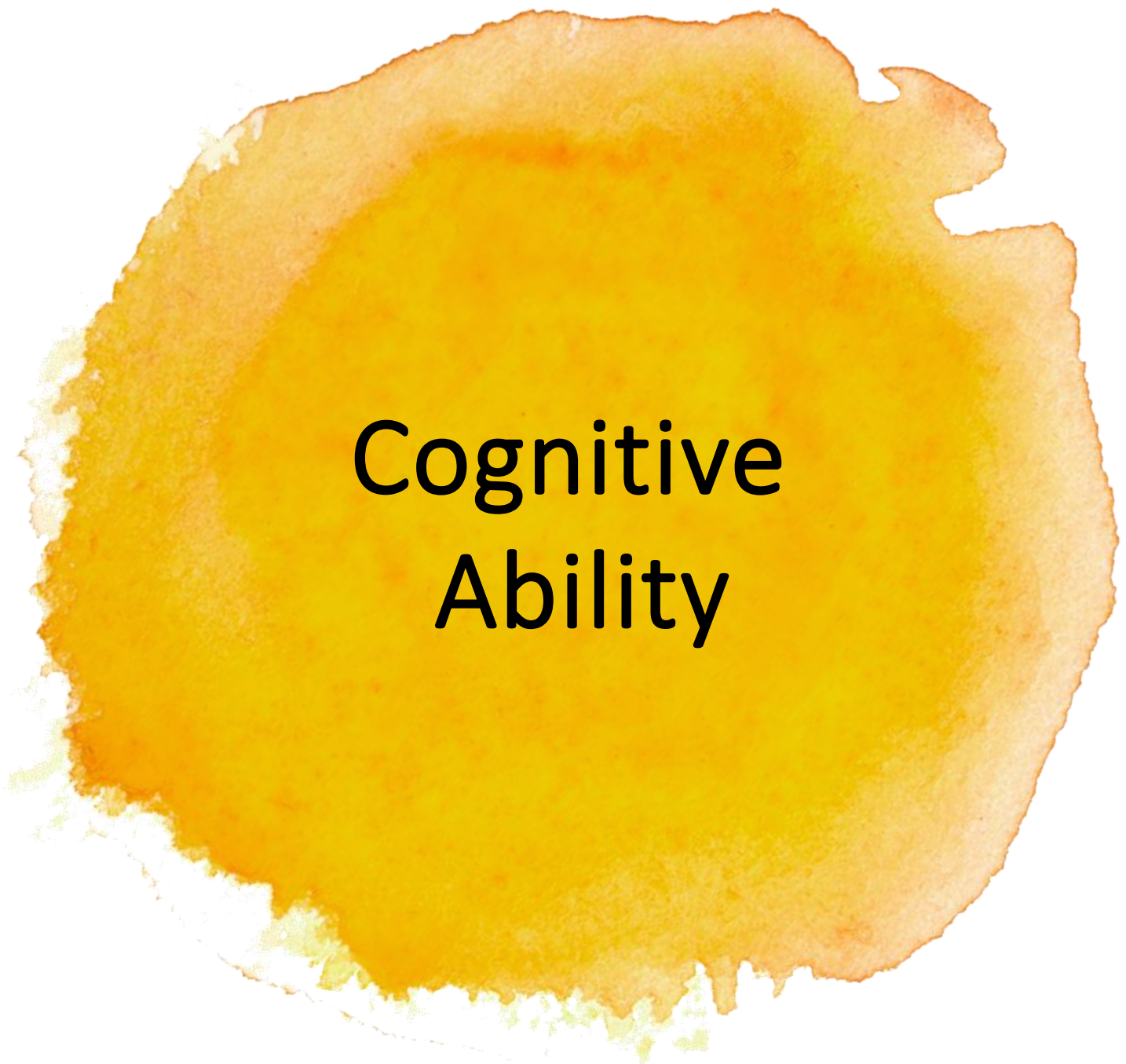
- ✓ Emotional intelligence!



“

General principle within occupational psychology is that *past behaviour is the best predictor of future behaviour/performance*





**Cognitive
Ability**

General Cognitive Ability (GCA / GMA)

Schmidt and Hunter (1998):

- For most jobs, GCA is the most important predictor of job and training performance

GCA = 'g' factor?

GCA = the ability to learn

GCA = the acquisition of job knowledge

People higher in GCA acquire more knowledge, and acquire it faster

General Cognitive Ability (GCA / GMA)

Schmidt and Hunter (1998):

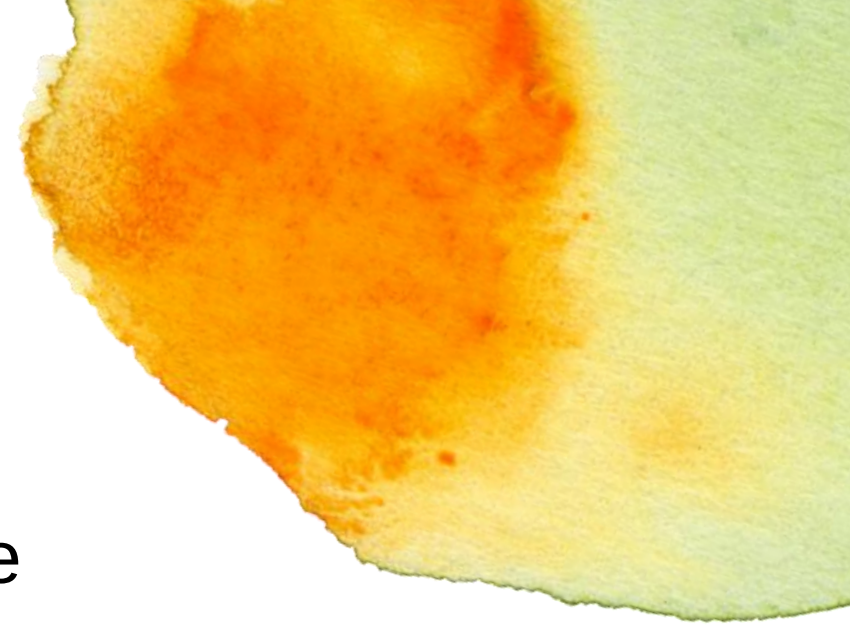
- Four reasons for the superiority of GCA over other methods

- 1) Versatility, high validity and lowest application costs
- 2) Strongest research evidence
- 3) Best predictor of job-related learning - .56
- 4) Strongest theoretical foundation

Cognitive Ability

General consensus re: GCA is that cognitive ability / intelligence is a major predictor of many types of job performance

- E.g., Leadership effectiveness (Lord, De Vader, & Alliger, 1986)



Ones et al. (2012)

- Evidence for the validity of cognitive ability tests in predicting job performance is overwhelming
- All jobs require some cognitive ability to learn the job and perform effectively
- Ones and Viswesvaran (2003):
 - High-complexity jobs 0.58
 - Low-complexity jobs 0.23

Job complexity and GMA

- Job complexity moderates the validity of GMA (Hunter & Hunter, 1984)
 - Higher complexity associated with larger validity coefficients for both job performance and training
- Finding consistently replicated
 - See Hartigan and Wigdor (1989), Salgado et al. (2003), Schmidt et al. (2008)

Cognitive Ability Testing



CA is the number one thing that is assessed, but not simply 'a measure of intelligence'. CA demonstrates the ability to learn quickly. Fluid rather than crystallised intelligence.

A watercolor splash in shades of yellow and orange, with the word "Personality" written in bold black text in the center.

Personality

Personality Assessment

RECAP

Trait Perspective

Goals of Trait Theorists:

- Describe the basic classes of behaviour that define personality
- Devise ways of measuring individual differences in personality traits
- Use these measures to understand and predict behaviour

Personality Assessment



RECAP

Personality traits are useful if they:

- Describe consistent differences between individuals
- Predict work-related behaviour independently from cognitive ability

Personality Assessment



RECAP

A personality profile (of a candidate or an employee) can provide an evaluation of an individual's values and traits

Can aid in maximising job performance

Personality Assessment



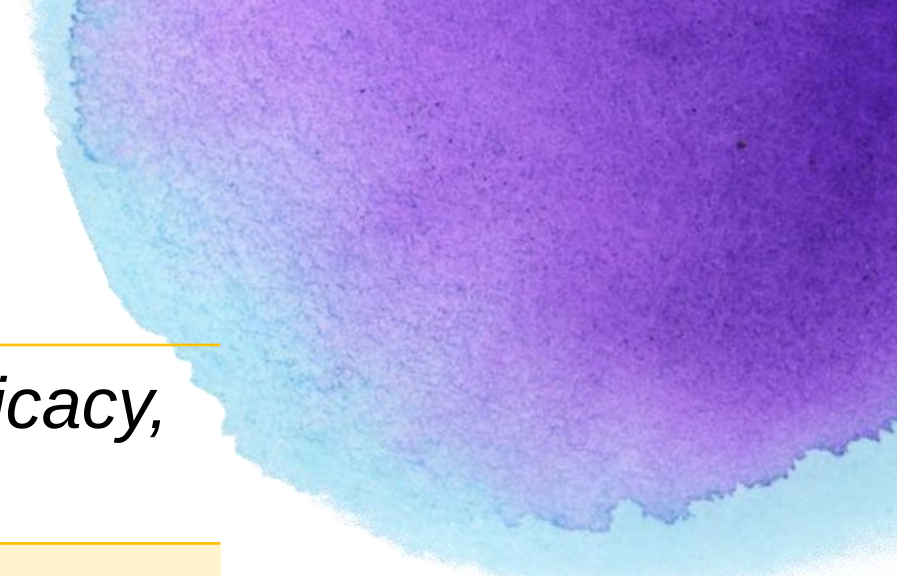
RECAP

Can help with finding the most suitable person to join a team

BUT ALSO

Improve current team by understanding what tasks are best suited to which people

Personality Assessment



Neuroticism (Emotional Stability)

Self-esteem, self-efficacy, life satisfaction, etc

Extraversion

Incentive reward sensitivity, positive emotion, happiness, etc

Openness to experience

Intelligence, creativity, broad-mindedness, etc

Agreeableness

Cooperativeness empathy, sympathy, etc

Conscientiousness

Dutifulness, orderliness, discipline, etc

Does Personality Predict Performance?

- Controversial debate with evidence on both sides
- OCBs: Agreeableness and Openness
- Task performance: Conscientiousness, emotional stability and extraversion
- Prediction depends upon the demands of the work role
- Facet-level predictive validity may be better than trait-level predictive validity...

The Five Factor Model and Job Performance: Research Findings

- Barrick, Mount and Judge (2001):

A meta-analysis of meta-analyses

- Conscientiousness (in particular) and neuroticism are the best personality predictors of job performance across all occupations
- Extraversion and agreeableness are important in jobs requiring a high degree of interpersonal work
- Less consistent evidence for Openness to experience

The Five Factor Model and Job Performance: Research Findings

- Salgado et al. (2003):
 - Conscientiousness is a valid predictor of performance across most jobs and organisational settings; criterion-related validity 0.23

The Five Factor Model and Job Performance: Research Findings

- Unlike ability testing, the predictive validity of personality measures for 'overall job performance' is not seen across all occupational settings and areas (Ones et al., 2007)
- For managerial roles 'achievement' and 'dependability' facets of conscientiousness predict job performance (Bergner et al. 2010)
- For customer services representatives (Perry et al. (2010), the 'achievement' facets interacts with GMA to impact performance

The Five Factor Model and Job Performance: Research Findings

- Conscientiousness is determined to be the most important personality predictor of performance at work

Assesses individual differences in:

- Competence
- Order
- Dutifulness
- Achievement striving
- Self-discipline
- Deliberation

Conscientious people set ambitious goals and work hard to meet them (Barrick, Mount & Strauss, 1993)

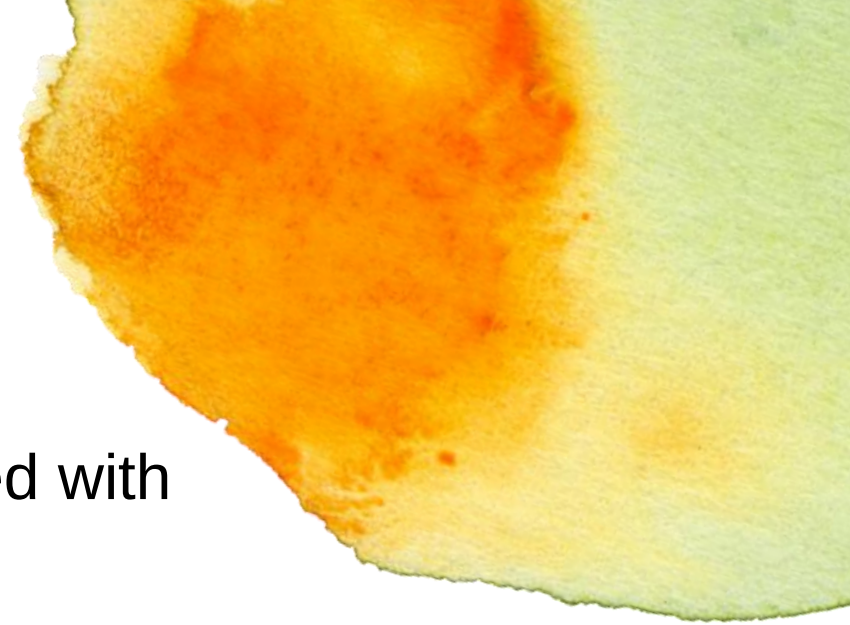
Neuroticism

Inconsistent findings but generally negatively associated with performance at work

Neuroticism linked to job and training performance particularly under stressful conditions

Matthew (1999) - better performance in air traffic controllers amongst individuals high in N

Marker of individual differences in stress-reactivity?

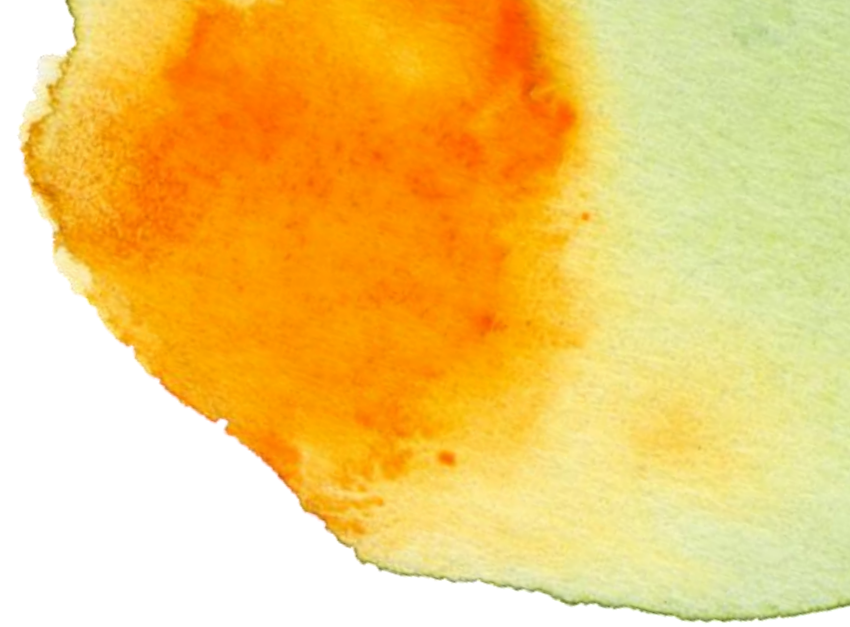


Extraversion

Inconsistent evidence

Positive associations between Extraversion and sales/managerial performance

Interaction between Extraversion and Neuroticism may be a better predictor of performance at work than one alone



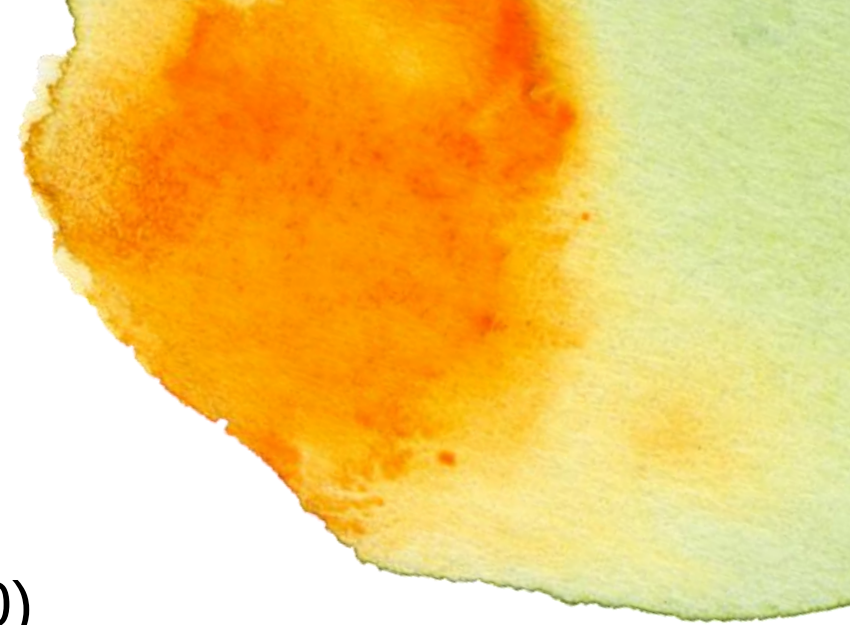
Agreeableness

Predicts performance in:

- Customer service type jobs (Hurtz & Donovan, 2000)
- Team-work based jobs (Barrick et al., 1998)

But generally *negatively* associated with career success/income: *Correlations of -.11 to -.32*

- ❖ Interaction with conscientiousness!
High C + low A = conflict with others!



Openness to Experience

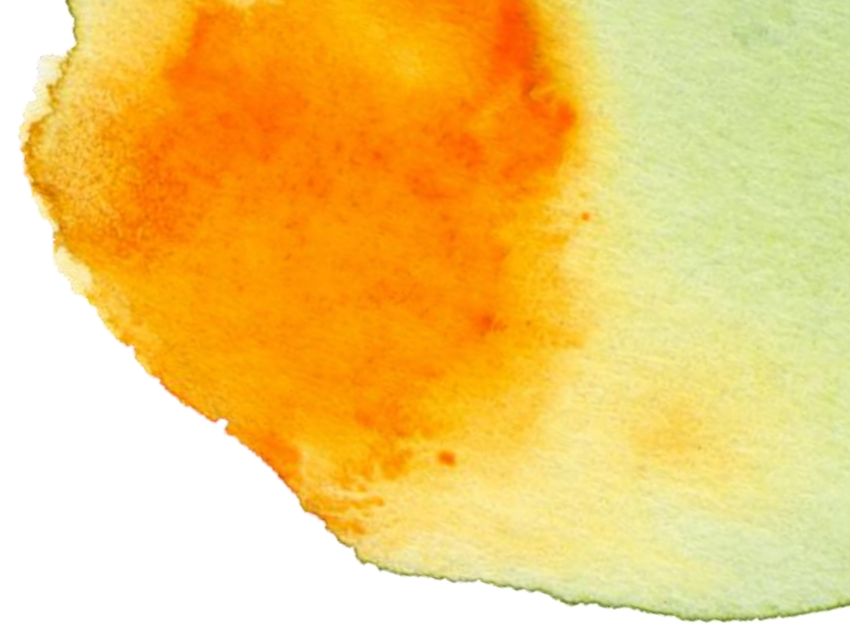
Inconsistent in predicting work performance

May reflect lack of clarity of what the trait consists of:

- Driven by fantasy?
- Artistic?
- Liberal?
- Need for cognition?

Relevant predictor in creative industries

Predicts training success generally



Critique of CA and personality

Cognitive Ability:

- Validity is generalisable across situations; correlations usually in .20's, validity most often .40 or above

Personality:

- Relationship varies with which Big Five construct is being considered.
- Conscientiousness seems to be the only construct that is generalisable
- Correlations between job performance and individual constructs almost always below .20, and even corrected rarely exceed .25

Critique of CA and personality

Cognitive Ability x Personality:

- Correlations between CA and P measures usually low
- Judge et al. (2007): meta-analytic correlations between 4 of the 5 Big Five constructs and CA were less than .10
 - Openness correlate = .22
 - Conscientiousness and CA correlation = .03 (Roth et al., 2011)

Critique of CA and personality

Overall:

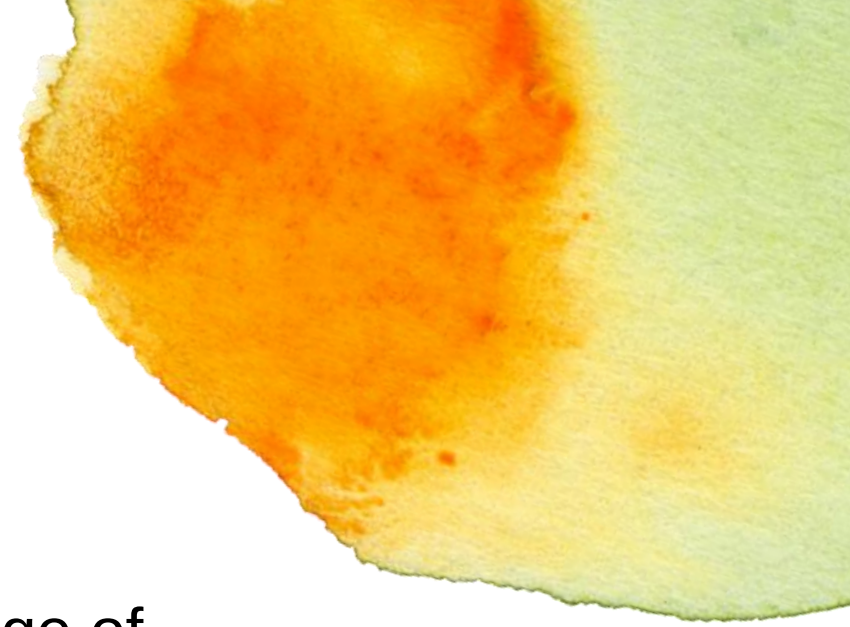
- Both CA and personality are valuable predictors of job performance
- Lack of correlation with each other suggests the need for use CA measures AND personality measures
 - Superior predictions
- In addition – low intercorrelations between big five constructs suggest that personality **combinations** are more predictive than individual constructs alone.

Issues with personality assessment...

1. FAKING

- The tendency for people to present a favourable image of themselves on questionnaires
- Social desirability response bias affects the validity of a questionnaire
- Job applicants have been found to score more highly on desired personality traits

Motivated to 'fake good'? (Barrick & Mount, 1996)



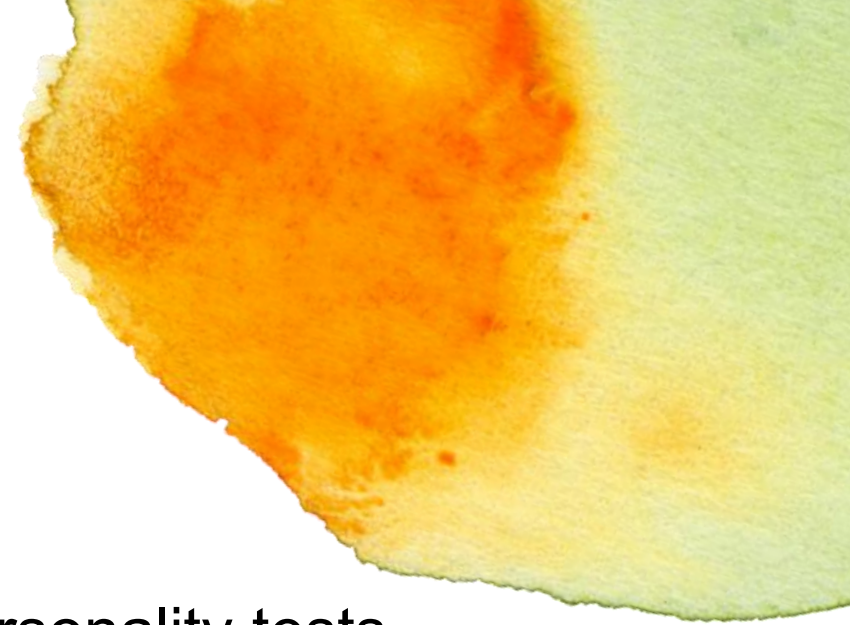
Issues with personality assessment...

1. FAKING

- Easy to identify the 'desirable response' on some personality tests
- May influence the ordering of candidates re: hiring decisions!
- Is there a solution?

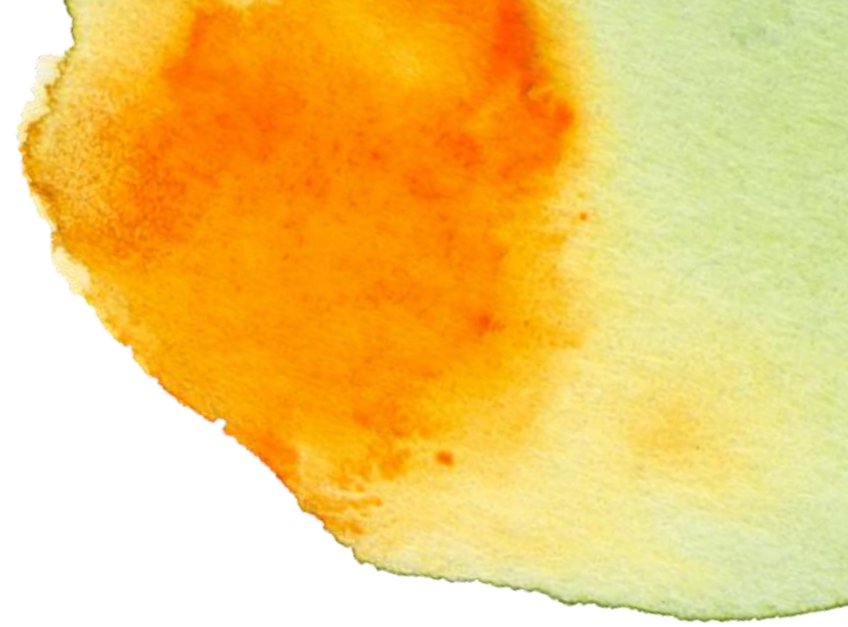
❖ *Ipsative tests:*

'forced choice' scale - respondents compare two or more equally desirable options and pick the one that is most preferred



Issues with personality assessment...

Over-claiming technique!



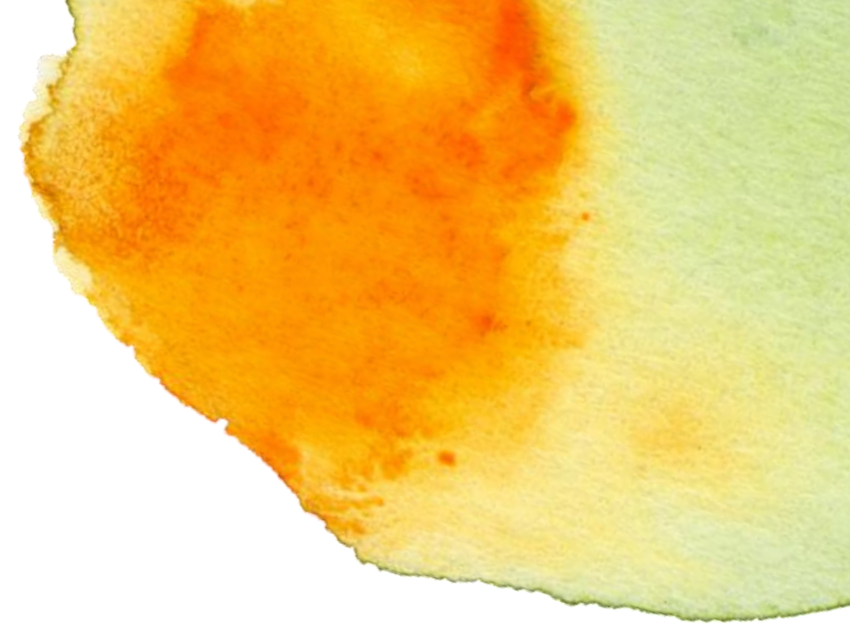
Issues with personality assessment...

2. State or Trait?

E.g., Laziness

State or trait?

- State = something that changes depending upon an individual's mood, situation, etc
- Trait = general trait of the individual across all settings



Overall Summary

- Cognitive ability, personality traits and emotional intelligence have their own place in the prediction of job performance
- The combinations of measures (in comparison to individual assessments) may be better predictive of job performance

