

# WHAT IPSATIVE MEASURES CAN TELL US ABOUT THE GENERAL FACTOR OF PERSONALITY

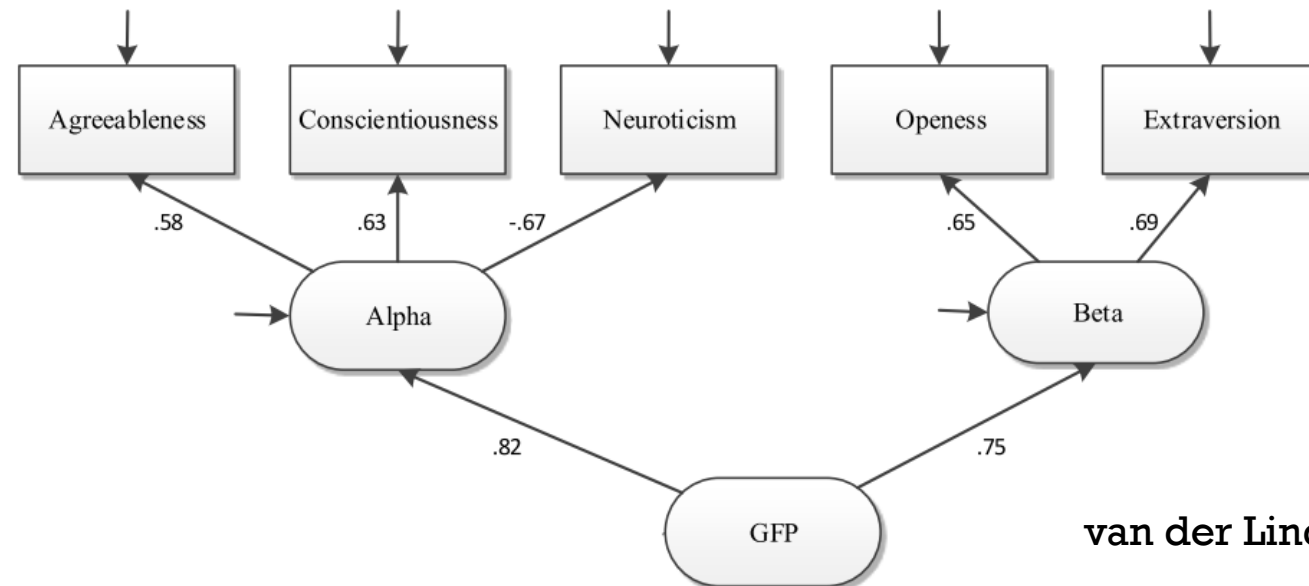
Professor Anna Brown

University of Kent, Canterbury, UK



# WHAT IS GFP?

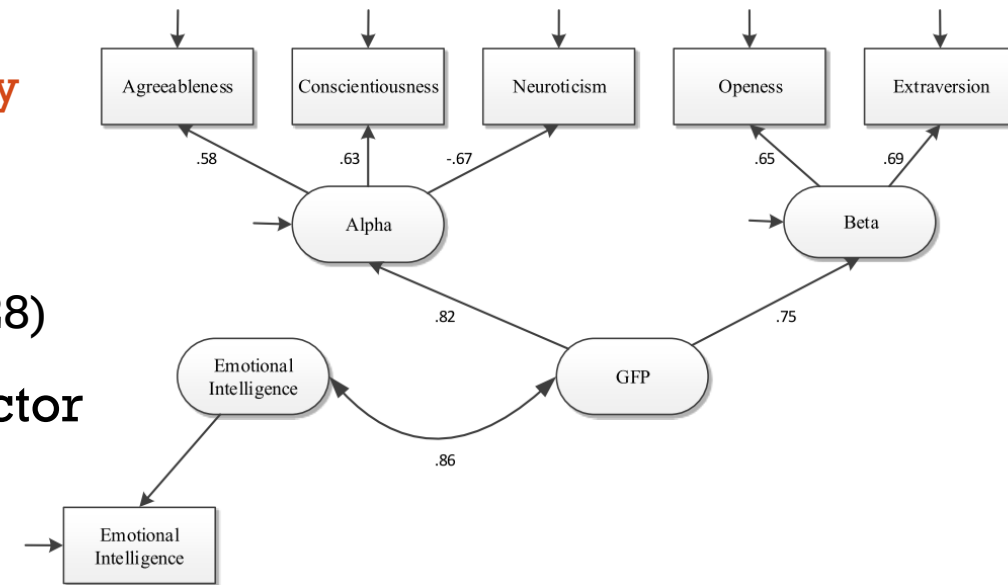
- The **General Factor of Personality (GFP)** is a higher-order factor consistently found in personality inventories, explaining correlations between all personality traits in the socially desirable direction.



van der Linden et al. (2017)

# GFP AS A SOCIAL EFFECTIVENESS FACTOR

- van der Linden et al. (2017) conducted a meta-analysis of 142 data sources (N=36,268)
  - Extracted the **GFP** from the Big Five dimensions
  - Examined the relationships between the **GFP** and Emotional Intelligence (**EI**), measured as **trait** or **ability**
- They found
  - a large overlap between **GFP** and **trait EI** ( $r \approx .85$ )
  - a moderate overlap between **GFP** and **ability EI** ( $r \approx .28$ )
- Concluded that the **GFP** is a social effectiveness factor



# GFP CONTROVERSY

- The long-standing controversy is whether **GFP** is
  - **a real thing** (individual differences can really be reduced to a single continuum from "bad personality" to "good personality"), or
  - **an artefact** of response biases, most notably socially desirable responding.
- This controversy **cannot be resolved** while we continue using research designs where:
  - Response biases common to all items / traits are present, because the substantive and method-related components of **GFP** are confounded
  - The external validation instruments suffer from the same biases as the personality assessments, because they will have a method-related overlap

# IPSATIVE MEASURES AND GFP

- **Normative** personality measures easily lend themselves to response styles and socially desirable responding
- “**Ipsative**” (or relative to self) response formats force respondents to choose among statements that describe their personality better or worse
  - It is no longer possible to endorse all desirable statements
  - Response styles such as acquiescence or extreme responding cannot be used
- I argue that **ipsative** measures are better suited to study **GFP**
  - The use of Thurstonian Item Response Model (TIRT, Brown & Maydeu-Olivares, 2011) ensures that the scale scores extracted from such questionnaires are **normative** and are **free from ipsative constraints**.

# OBJECTIVES AND METHOD

- **Objectives.** To investigate the construct validity of **GFP** overcoming the design flaws of previous research
  1. Using a personality inventory in an **ipsative format**, so the response biases are minimized (the method factor is minimized)
  2. Using validation measures sharing **no common method** with the personality measure
- **Design.** This research uses a personality measure in both **normative** and **ipsative** formats, and several **external measures** for construct validation
- **Participants**
  - **Study 1:** N=279 undergraduate psychology students
  - **Study 2:** N=219 call centre employees

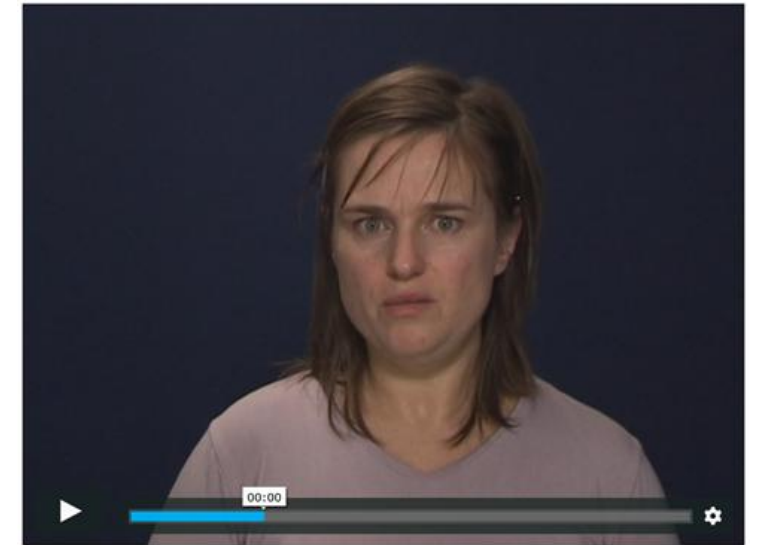
# PERSONALITY MEASURE

- The Customer Contact Styles Questionnaire (CCSQ7.2 published by SHL)
  - measures 16 personality traits, covering the Big Five domains
  - consists of 128 items arranged in 32 blocks of 4 items
  - “**nipsative**” combining both normative and ipsative formats

	Rate your agreement with EACH statement					Choose one statement describing you most and one describing you least
	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree	
manages to relax easily	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	LEAST like me ▾
is careful over details	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	MOST like me ▾
enjoys working with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	▾
sets high personal standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	▾

# VALIDATION MEASURES

- Study 1 included three validation measures:
  1. Balanced Inventory of Desirable Responding (BIDR), measuring self-reported tendencies for **Socially Deceptive Enhancement (SDE)** and **Impression Management (IM)**
  2. Situational Test of Emotional Management (STEM), measuring **ability EI**
  3. Geneva Emotion Recognition Test (GERT), measuring **ability EI**
- Study 2 included one validation measure:
  - **incentive bonus** paid on employee performance



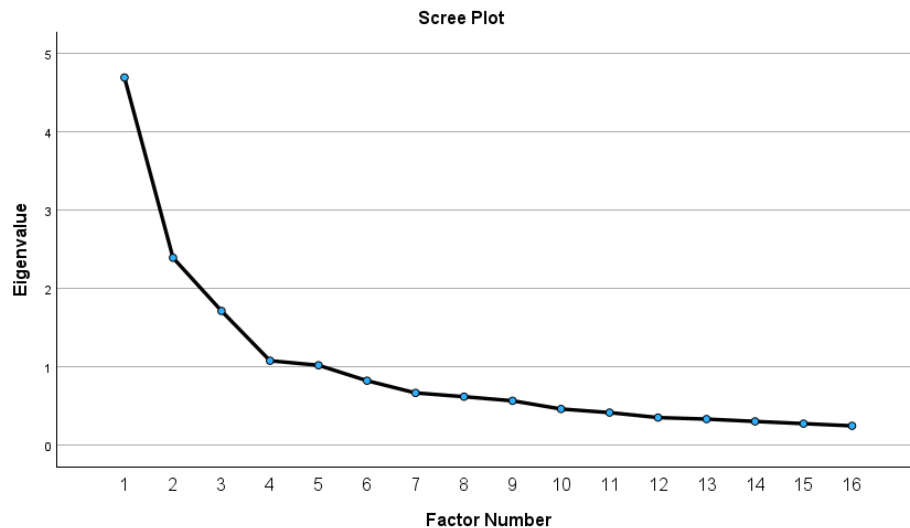


# RESULTS: GFP EXTRACTION

- From **normative** CCSQ responses scored with *IRT Graded Response Model* (zero corr. prior)
- From **ipsative** CCSQ responses scored with *Thurstonian IRT model* (zero corr. prior)

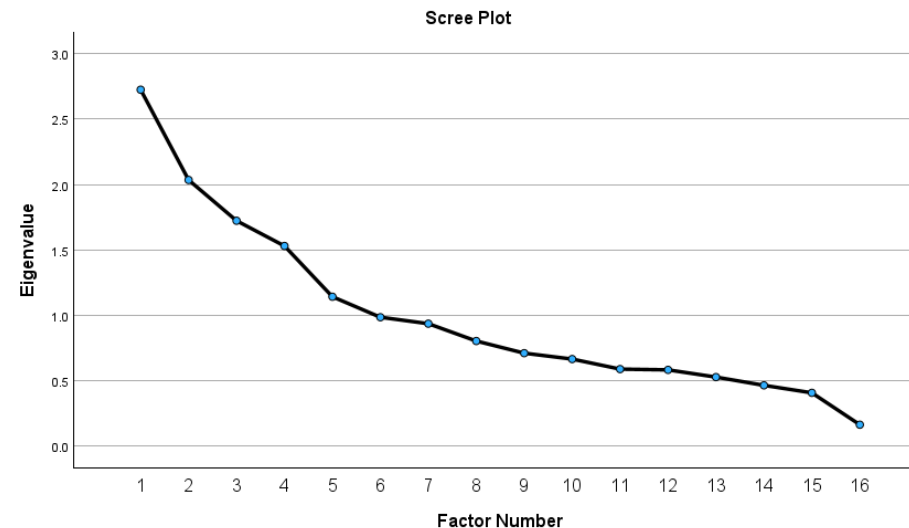
## Normative GFP

- Accounted for 24.87% trait variance (32.9% in Study 2)



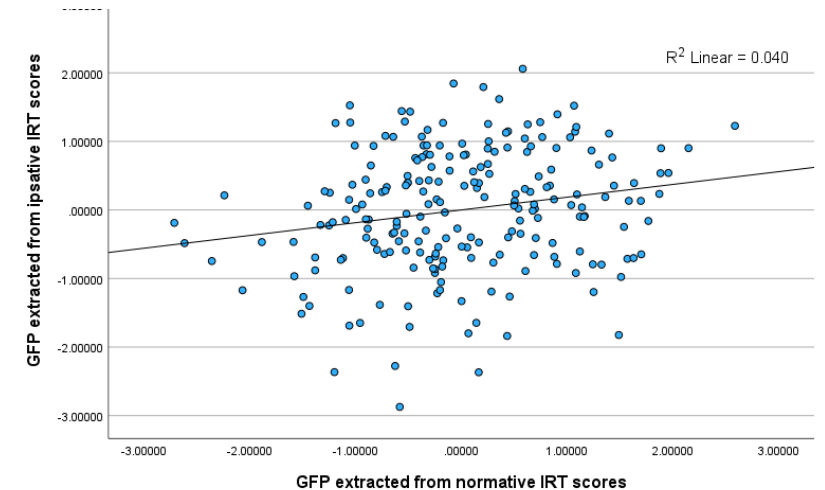
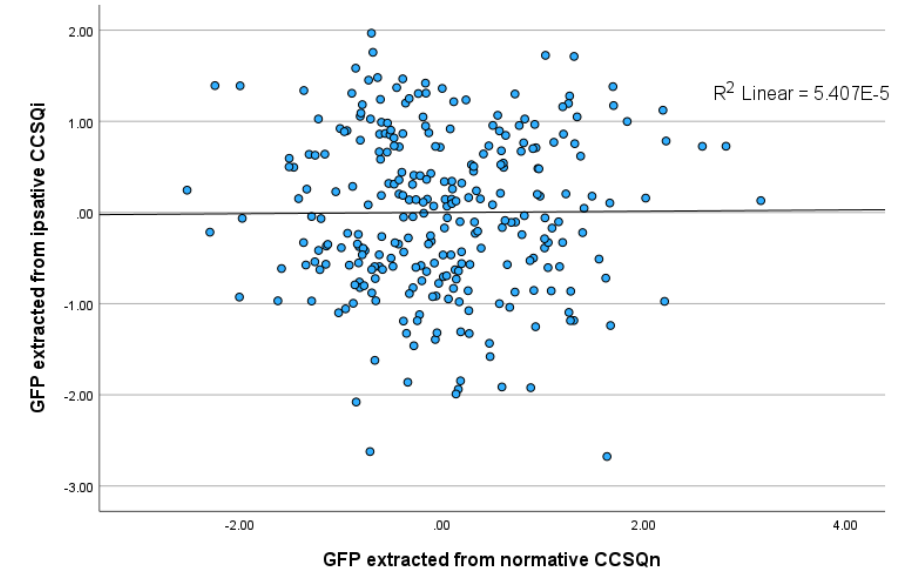
## Ipsative GFP

- Accounted for 12.60% trait variance (13.6% in Study 2)



# RESULTS: GFP MEANING

- **Normative GFP**
  - All CCSQ scales loaded over 0.4 except Modest, Resilience and Competitive
    - Results Orientated (.76); Analytical (.61); Conscientious (.61)
- **Ipsative GFP**
  - Only 4 CCSQ scales loaded over 0.4
    - Structured (.71); Detail Conscious (.69); Conscientious (.53)
    - Sociable (-.44)
- Format-specific **GFPs** did not correlate with each other ( $r=.01$ ), suggesting **distinct constructs** in Study 1
- Correlated weakly at  $r=.20^{**}$  in Study 2



# RESULTS: **GFP** EXTERNAL VALIDITY

format	BIDR_SDE	BIDR_IM	GERT	STEM	bonus
normative	.290***	.186**	.008	.008	.298***
ipsative	.036	.308***	.240***	.196**	.289***

- The **GFP** extracted from the **normative** and **ipsative** formats correlated with Impression Management (BIDR) and incentive bonus
- **GFP normative**
  - Correlated with Socially Deceptive Enhancement (BIDR)
- **GFP ipsative**
  - Correlated with emotion management (STEM) and recognition (GERT)

# SUMMARY OF FINDINGS

- Using a personality inventory that combines both **normative** and **ipsative** formats this research found that:
  1. the **GFP** has **different** meanings depending on **response formats**
    - **GFP** in **normative** responses is driven by all Big 5
    - **GFP** in **ipsative** responses is driven primarily by Conscientiousness
  2. **Normative GFP** correlates with **self-reported** “social desirability” BIDR scales
    - They have common response format
  3. **Ipsative GFP** correlates with (**objectively measured**) ability EI
  4. Both format’s **GFPs** correlate with **self-reported** tendency to manage impression, and **objectively measured** bonus (performance)

# DISCUSSION

- Past research has related the **GFP** to **social effectiveness** by finding
  - large overlaps with measures of **trait EI** (van der Linden, Dunkel & Petrides, 2016) and **assessment centre ratings** (van der Linden, Bakker & Serlie, 2011),
  - but only moderate overlaps with measures of **ability EI** (van der Linden et al., 2017)
- In this research, the GFP demonstrated attributes of both – a substantive **trait** and a method-related **artefact...**
  - overlaps with **social effectiveness** (to predict job performance regardless of the response format)
  - overlaps with **ability EI** when extracted from **ipsative** data
  - overlaps with **socially desirable responding** when extracted from **normative** data
- **General Factor of Personality Measure?**



**THANK YOU!**  
**ANY COMMENTS OR QUESTIONS?**

[a.a.brown@kent.ac.uk](mailto:a.a.brown@kent.ac.uk)

<http://annabrown.name>