# I am a personality psychologist

### William Revelle

I am a personality psychologist, I study individual differences in affect, behavior, cognition, and motivation as they are affected by biological causes and environmental events. That is the answer I give when people ask me what I do. I do not say that I am a cognitive-psychologist, a social-psychologist, a neuro-psychologist, a behavior geneticist, a psychometrician or a methodologist, for although I do those various hyphenated parts of psychology, by saying I study personality and individual differences, I have said I do all of those things. And that is true for all of us here today. We study individual differences. Individual differences in how we think, individual differences in how we feel, individual differences in what we want and what we need, individual differences in what we do. We study how people differ and we also study why people differ. We study individual differences. I am indeed honored to be the president of this society and humbled when I think of the former and future presidents of this society.

## 1 Early Personality Theory and application

Our field is not new for an understanding of research methodology and individual differences in ability and affect was described as early as the Hebrew Bible in the story of Gideon (Judges 6, 7). Gideon was something of a skeptic who had impressive methodological sophistication. In perhaps the first published example of a repeated measures, cross over design, he applied several behavioral tests to God before agreeing to do as he was told. Gideon put wool out on his threshing floor and first asked that just the wool should be wet. Then, when this happened, as a cross over control, asked for the wool to be dry and the floor wet. Observing this double dissociation, Gideon decided to follow God's commands. I believe that this is the first published example of the convincing power of a cross over interaction.

In addition to being an early methodologist, Gideon also pioneered the use of a sequential assessment battery. Leading a troop of 32,000 men to attack the Midians, Gideon was instructed to reduce the set to a more manageable number (for greater

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\label{eq:continuous}  \begin{aligned} &\text{jiprint=FALSE,echo=FALSE, fig=TRUE,eps=FALSE;} \\ &\text{i= c(1,2) floor j- c(0,1)} \\ &\text{wool j- c(1,0) plot(x,floor,xlab="Night",ylab="Moisture", typ="b",xaxt="n",} \\ &\text{main="Gideon's double dissociation test") axis(1,c(1,2)) points(x,wool,typ="b", lty="dashed") text(1.75,.4,"Wool") text(1.75,.9,"Floor") @} \end{aligned}
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Figure 1: Gideon's tests for God are an early example of a double dissociation and probably the first published example of a cross over interaction. On the first night, the wool was wet but the floor was dry. On the second night, the floor was wet but the wool was dry (Judges 6:36-40)

effect upon achieving victory). To select 300 men from 32,000, Gideon (under instructions from God) used a two part test, one measuring motivation and affect (selecting those 10,000 who were not afraid) and the other measuring crystallized intelligence (or at least battlefield experience) (selecting those 300 who did not lie down to drink water but rather lapped it with their hands (?).

#### 1.1 Personality taxonomies

Tyrtamus of Lesbos, known as Theophrastus for his speaking abiity, (?), asked a fundamental question of personality theory that is still of central concern to us today:

Often before now have I applied my thoughts to the puzzling question – one, probably, which will puzzle me for ever – why it is that, while all Greece lies under the same sky and all the Greeks are educated alike, it has befallen us to have characters so variously constituted.

This is, of course, the fundamental question asked today by ISSID members who study behavior genetic when they address the relative contribution of genes and shared family environment as causes of behavior.

Theophrastus was a student of Aristotle and was most famous as a botanical taxonomist. However, he is known to members of this society as a personality taxonomist who organized the individual differences he observed into a descriptive taxonomy of "characters". The characters of Theophrastus are often used to summarize the lack of coherence of early personality trait description, although it is possible to organize his "characters" into a table that looks remarkably similar to equivalent tables of the late 20th century (e.g., ??).

1600 years later, Chaucer added to the use of character descriptions in his "Cantebury Tales" which are certainly the first and probably the "best sequence of

Table 1: The characters of Theophrastus and the adjectives of the Big 5 show remarkable similarity. Big 5 adjectives from John ?. The characters of Theophrastus are from ?

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Extraversion	Agreeableness	Conscientious	Neuroticism	Openness
talkative	sympathetic	organized	tense	wide interests
assertive	kind	thorough	anxious	imaginative
active	appreciative	planful	nervous	intelligent
energetic	affectionate	efficient	moody	original
-quiet	-cold	-careless	-stable	-commonplace
-reserved	-unfriendly	-disorderly	-calm	-simple
-shy	-quarrelsome	-frivolous	-contented	-shallow
-silent	-hard-headed	-irresponsible	-unemotional	-unintelligent
talker	anxious to please	hostile	coward	stupid
chatty	flatterer	shameless	grumbler	superstitious
boasful	unpleasant	distrustful		boor
ironical	feckless	slanderer		offensive
petty ambition	tiresome	penurious	mean	gross
arrogant	outcast	avaricious		
garrulous	complaisant	Reckless		
gossipy	surley	officious	unseasonable	
oligarch	evil speaker	patron of rascals		

'Characters' in English Literature" (?, pg 2). This tradition continued into the 17th century where the character writings of the 17th century are fascinating demonstration of the broad appeal of personality description and categorization?.

#### 1.2 Personality and leadership effectiveness

Other early trait theorists include Plato who in the Republic discusses the qualities of leadership in terms that we would now refer to as anxiety, impulsivity, and intelligence:

... quick intelligence, memory, sagacity, cleverness, and similar qualities, do not often grow together, and that persons who possess them and are at the same time high-spirited and magnanimous are not so constituted by nature as to live orderly and in a peaceful and settled manner; they are driven any way by their impulses, and all solid principle goes out of them.

On the other hand, those steadfast natures which can better be depended upon, which in a battle are impregnable to fear and immovable, are equally immovable when there is anything to be learned; they are always in a torpid state, and are apt to yawn and go to sleep over any intellectual toil.

And yet we were saying that both qualities were necessary in those to whom the higher education is to be imparted, and who are to share in any office or command.

And will they be a class which is rarely found?

Then the aspirant must not only be tested in those labours and dangers and pleasures which we mentioned before, but there is another kind of probation which we did not mention—he must be exercised also in many kinds of knowledge, to see whether the soul will be able to endure the highest of all, or will faint under them, as in any other studies and exercises. (?, Book 6)

Similar work is now done by Robert Hogan and his colleagues as they study the determinants of leadership effectiveness in management settings???? as well as our past president Adrian Furnham

. The dark side qualities discussed by Hogan could have been taken directly from The Republic.

#### 1.3 Causal theories

Biological personality models have also been with us for more than two millenia, with the work of Plato, Hippocrates and later Galen having a strong influence. Plato's organization of the tripartite soul into the head, the heart and the liver (or, alternatively, reason, emotion and desire) remains the classic organization of the study of individual differences.

500 years later, the great doctor, pharmocologist and physiologist, Galen (129-c.a. 216) organized and extended the earlier literature of his time, particularly the work of Plato and Hippocrates (c 450-380 BCE), when he described the causal basis of the four temperaments. His empirical work, based upon comparative neuroanatomy, provided support for Plato's tripartite organization of affect, cognition, and desire.

Table 2: Greek/Roman causal theory of personality

Physiological Basis	Temperament
Yellow Bile	Choleric
Excessive Phlegm	Phlegmatic
Blood	Sanguine
Black Blile	Melancholic

As is well known to members of this society, Wilhelm Wundt reorganized the Hippocrates/Galen four temperaments into the two dimensional model later discussed by Hans Eysenck.

Table 3: Wundt's two dimensional organization of the four temperaments

Exciteability	Melancholic	Choleric
	Phlegmatic	Sanguine
	Changeability	

### 1.4 Early methodology

Besides the introduction of the cross over experiment by Gideon, Plato introduced two important concepts that would later find in an important role in psychometrics and the measurement of individual differences. The concept of "True Score" and of the distinction between Observed and Latent Variables may be found in the Allegory of the Cave?. For just as the poor prisoners chained in the cave must interpret the world in terms of the shadows cast on the wall, so must psychometricians interpret individual differences in observed score as reflecting latent differences in True score. Although shadow length can reflect differences in height, it can also reflect differences in distance from the light. For the individual differences specialist, making inferences about true score changes based upon observed score differences can be problematic. Consider the changes in observed IQ scores over time reported by Flynn. As Art Jensen asked, is the Flynn effect a real effect, and are people getting smarter, or are the IQ scores going up equivalent to a change in shadow length in the cave, due to a change in position but not of height in the real world?