The contributions of SMEP to personality theory
A personal history

Saul Sells Award address:
Society of Multivariate Experimental Psychology
Durango, Colorado

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October, 2026
Slides available at the Personality Project:
https://personality-project.org/sapa/

Outline

Preamble

Founders: the early years

SMEP and Personality Measurement

Common sense methods

Other memorable friends

Conclusion

SMEP: the last 50 years: A personal reflection

1. SMEP was founded in 1960 by Ray Cattell and five friends and had the first annual meeting in 1961 (Cattell, 1990).
2. I heard about SMEP my first year in graduafe school from Warren Norman in 1968, but unfortunately this was the same year as the beginning of the dark ages of personality research.
3. I was elected in 1976 and have attended all but one of the subsequent meetings.
4. Although substantive research in Europe was keeping personality theory and research alive, it was the meetings of SMEP in the US that provided a home for those of us who wanted to study personality in the tradition of Cattell (1966b) or Eysenck (1953, 1964, 1965).
5. That is to say, to include mathematics, biology, and genetics in the study of important individual differences.

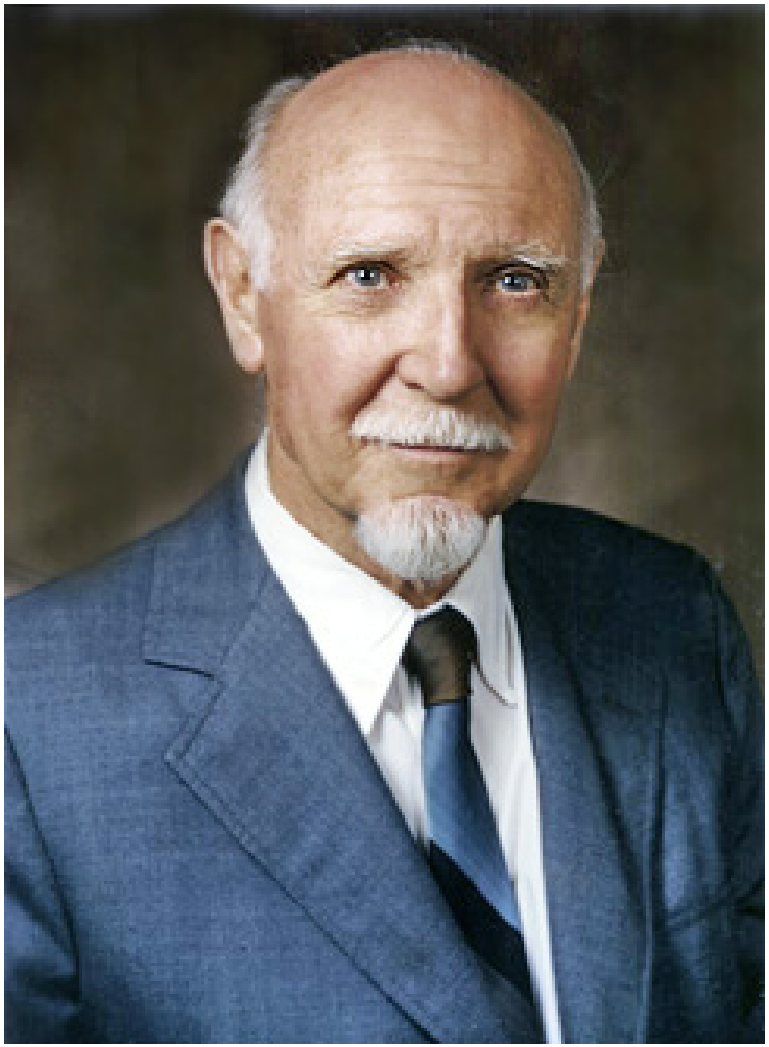
An idiosyncratic view

1. SMEP was founded to facilitate discussion between substantive and methodological researchers.
2. Over the first 30-40 years it has done so, but is the mission still critical and are we still doing so?
3. Partly because of contributions from SMEP members, the field of personality has flourished. It has seen the founding of ARP, ECP, and ISSID.
4. Meetings of ARP and ECP have included modern methods, but also some egregiously out of date methods.
5. Personality theory is stronger because of the opportunity to discuss methods with leading methodologists. But this is not a one way street, for the methods developed to assess structure and causality, both dynamic and cross sectional, have proved useful to the broader quantitative field (e.g., the *psych* package for R, Revelle, 2026; R Core Team, 2026).
6. Meetings of ARP and ECP have included modern methods, but also some egregiously out of date methods.

SMEP: Methods and substance

1. SMEP was founded to facilitate discussion between substantive and methodological researchers.
   - I will attempt to summarize the first 60 years of that endeavor by reviewing the contributions of SMEP to personality assessment and structure.
   - And the equally important contributions of personality theory and assessment to our current methodologies.
2. This is clearly a biased and personal retrospective, others will disagree with my summary and conclusion.

Ray Cattell (1905 - 1998)



- Founding president of SMEP 1960-1961
- One of the most prolific personality researchers ever.
- The data box (Cattell, 1946, 1966a) has helped organize research for 80 years (Cronbach, 1984; Revelle, 2009).
- See also Cattell (1984) for a summary of the first 60 years of his lab.

Cattell, Galton, and the lexical hypthesis

First stated by Galton (1884) the lexical hypothesis was
"We must guard ourselves against supposing that the moral faculties which we distinguish by different names, as courage, sociability, niggardness, are separate entities. On the contrary, they are so intermixed that they are never singly in action.
I tried to gain an idea of the number of the more conspicuous aspects of the character by counting in an appropriate dictionary the words used to express them. Roget's Thesaurus was selected for that purpose, and I examined many pages of its index here and there as samples of the whole, and estimated that it contained fúlly one thousand words expressive of character, each of which has a separate shade of meaning, while each shares a large part of its meaning with some of the rest." (p 181)

Cattell, Allport and the lexical hypothesis

"Although traits are strictly personal and unique forms of adjustment, a few seem common enough to be regarded as comparable from one individual to another. These might be called common or scalable traits. Perhaps ascendance, submission, perseverance, possibly introversion, extroversion, and various generalized social attitudes and interests are examples of scalable traits. They represent modes of adjustment which most individuals are forced to develop (albeit in differing degrees) in our standard civilized environment. But if we attempt such scaling we should remember that we are likely to constrain personalities (unnaturally in fitting them into one mould. In reality, of course, each life lends to each trait—even to these " common " traits— an altogether peculiar coloring. Measurement is possible only if we blindly insist that people are comparable in respect to each " common " trait. The artifice is perhaps justified by the practical advantages of using " personality tests," but the method must not be regarded as theoretically perfect. " (Allport et al., 1936)

Cattell, Allport and the lexical hypothesis

1. trait words ".. designate generalized and personalized determining tendencies— consistent and stable modes of an individual's adjustment to his environment. " p28
2. state words (column 2 words) "contains terms descriptive of present activity, temporary states of mind, and mood. The criterion for inclusion reads as follows: 'Might the quality in question characterize a person's mood, emotion, present attitude, or present activity (but not his enduring and recurring modes of adjustment) ?'
3. character words "contains characterial evaluations. Typical examples are insignificant, acceptable, worthy. The paradigm for inclusion reads " Might one judge a man as worthy without the man possessing a corresponding biophysical trait which may be symbolized with the same name ?" (Allport et al., 1936)

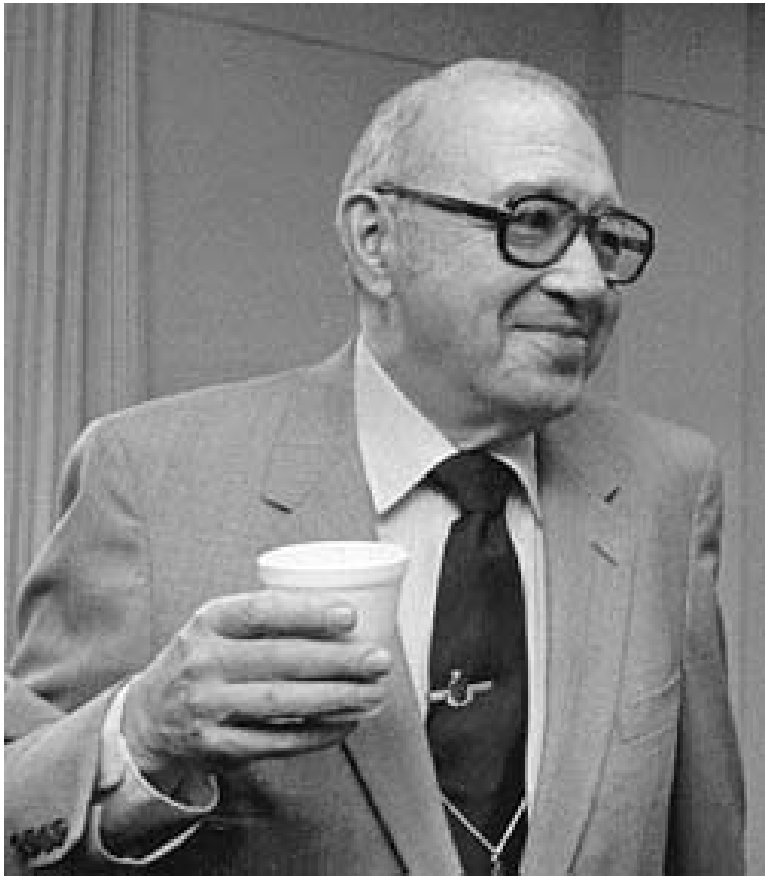
Cattell and the Lexical hypothesis

1. Cattell (1943) took the 17,953 words from Allport/Odbert and then selected the 4,504 “real personality traits”
2. With independent raters, grouped these adjectives into 171 cluster of bipolar terms.
3. Limited by computer power they then clustered these into clusters (by examining the 14,535 tetrachoric correlations “The correlations having been computed, by the use of Thurstone’s diagrams, they were set out for inspection on a table 14 feet square.”
4. this led to 60 clusters.
5. These clusters or 40+ paragraph descriptors formed from these clusters were the basis of much of the following work.

Cattell on the limits of factor analysis

As is now widely realized, the factor analyst can grind from his mathematical mills only the particular factors for which grist is already provided in the form of suitable trait elements. It is realized also that in experimental design the experimenter may "manipulate the electorate" of trait elements in such a way as to make minor factors appear larger, e.g., to make "specific" factors into "group" factors, or the latter into "general" factors. By other controls of trait or subject population one may also change the variance due to any factor or even make it disappear entirely. (Cattell, 1943, p 479)

Saul Sells (1913–1988)



- SMEP president 1962
- Managing editor of MBR until 1983
- Although SMEP bylaws say that “annual meetings should not be held in large, distracting cities, but in country motels or small universities in peaceful and beautiful surroundings ” (Cattell, 1990)
- Saul suggested ”We should hold SMEP at the OHare Hilton” and held the Ft. Worth meeting in a motel at the end of a B52 runway.

Donald Fiske (1916-2003)



- President of SMEP: 1968
- Consistency of the factorial structure of personality (Fiske, 1949) – The earliest big 5
- 22 of the rating scales were based on Cattell (1943).
- Predicting graduate school success was a classic in showing interviews add little value (Kelly and Fiske, 1950, 1951)
- Convergent and discriminant validity (Campbell and Fiske, 1959)

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Ken Howard (1932 - 2000)



- As an undergraduate, worked with Harrison Gough and Robert Tryon at UCB
- Did his graduate training with Don Fiske at U of C.
- Co-Founder of Midwest SMEP in 1966
- Was a founder of the Society Psychotherapy Research in 1968. ’“The best friend that psychotherapy research ever had.” (Orlinsky et al., 2010)
- Long time faculty member and director of clinical training at NU.

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Factor analysis of the personality hyper sphere

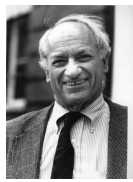
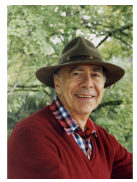
How many dimensions, what are they?
Multiple investigators, multiple solutions

- From Galton (Galton, 1884) and Allport's (Allport et al., 1936) lexical hypothesis
- Cattell 171 clusters - 42 short rating scales
- These same short paragraphs descriptors were used in multiple peer rating studies Fiske (1949); Tupes and Christal (1961); Norman (1963) leading to some consistency of results
- Ratings of children by teachers Digman and Takemoto-Chock (1981); Digman (1990).
  - Digman suggested that Cattell had a typo in his correlation matrix and that reversing one correlation dropped the solution from 12 to 5.
- Synthesis of results: the Big 5 Goldberg (1990); John (1990); John et al. (1991)

SMEP meetings were a source of frequent debate

1. For many years, we had symposia about the number of factors problem as applied to the personality sphere.
2. Some of this was methodological e.g.
   - Alternatives to “Little Jiffy” (Horn, 1965; Horn and Engstrom, 1979; Velicer, 1976; Zwick and Velicer, 1986; Revelle and Rocklin, 1979)
   - Factors versus components (Schonemann, 1990; Velicer and Jackson, 1990; Loehlin, 1990)
3. But most of this was substantive.
4.

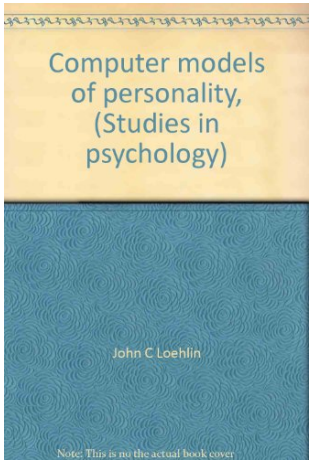
Many theories, many theorists, lively SMEP debates

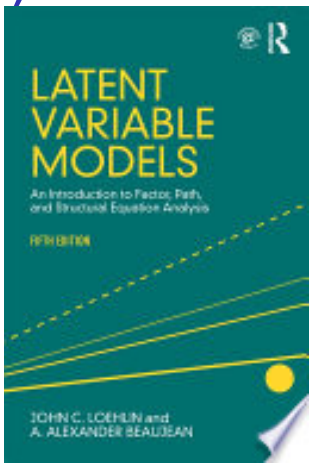
1.  John Loehlin ‘gfp’
2.  Jerry Wiggins circumplex  Jack Block  Jack Digman higher order factors of Big 5
3.  Eysenck PEN  Dean Peabody
4.  Don Fiske 4 replicable factors
5.  Norman 5  Goldberg Big 5  Costa FFT
6.  Bob Hogan
7.  Auke Tellegen
8.  Andy Comrey

John Loehlin (1926-2020)



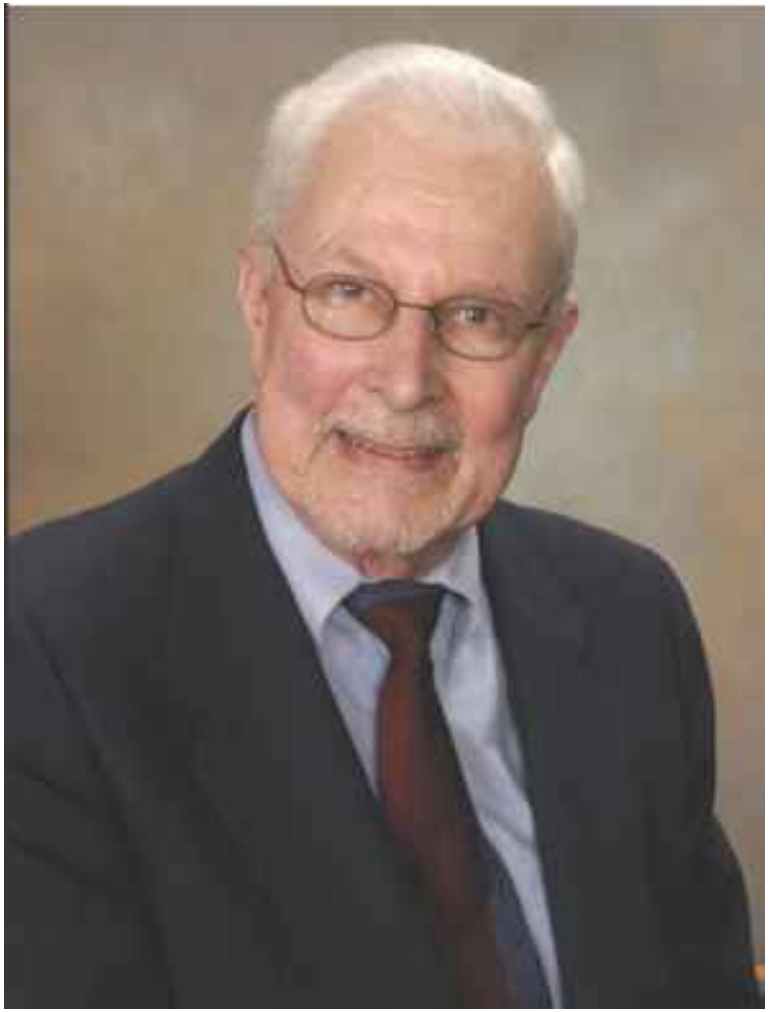
SMEP president, 1989





1. Wide ranging interests, including BG., SEM, computer models
2. John claimed that there was a general factor of personality. Loehlin and Martin (2011); Loehlin (2013)
3. But this was debatable Revelle and Wilt (2013)

Jerry Wiggins: (1931 - 2006)



1. SMEP president, 1980
2. The “red book” Personality and Prediction: Principals of personality assessment (Wiggins, 1973)
3. A two dimensional taxonomy of the interpersonal domain (Wiggins, 1979)
4. The interpersonal circumplex (Wiggins, 1979)

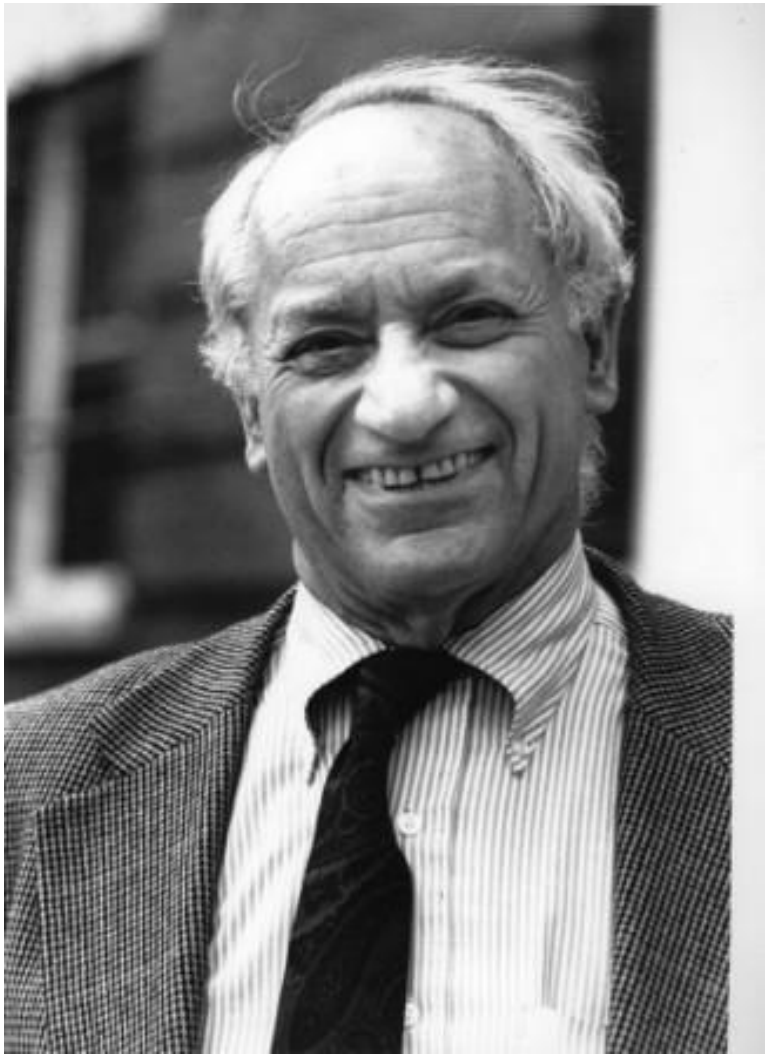
Doug Jackson (1929 - 2004)



1. SMEP president 1975,
2. Sells award 1997
3. Content and Style in Personality Assessment, 1958 (Jackson and Messick, 1958) suggested personality questionnaire responses were dominated by response styles
4. But see Block (1965) for the opening of a multiyear debate.
5. PCA vs EFA Velicer and Jackson (1990)

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Jack Block (1924 - 2010)



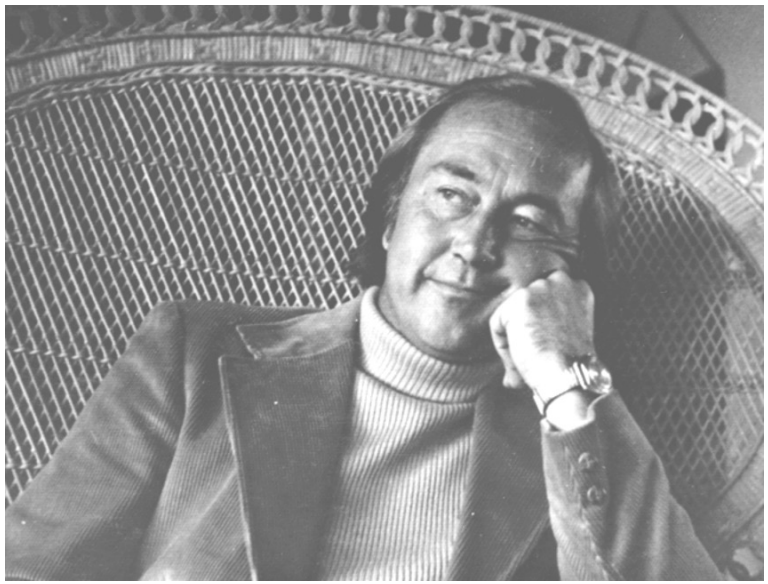
1. SMEP President 1981
2. Sells award 1998
3. Studying personality the long way (Block, 1993)
4. Personality as an affect-processing system : toward an integrative theory (Block, 2002)
5. Two broad dimensions: ego control, ego resilience
6. The challenge of response sets (Block, 1965)
7. A critique of the Big 5 (Block, 1995)

Donald Fiske (1916-2003)



- President of SMEP: 1968
- Consistency of the factorial structure of personality (Fiske, 1949) – The earliest big 5 but only 4 were replicable.
- 22 of the rating scales were based on Cattell (1943).
- Predicting graduate school success was a classic in showing interviews add little value (Kelly and Fiske, 1950, 1951)
- Another classic was convergent and discriminant validity (Campbell and Fiske, 1959)

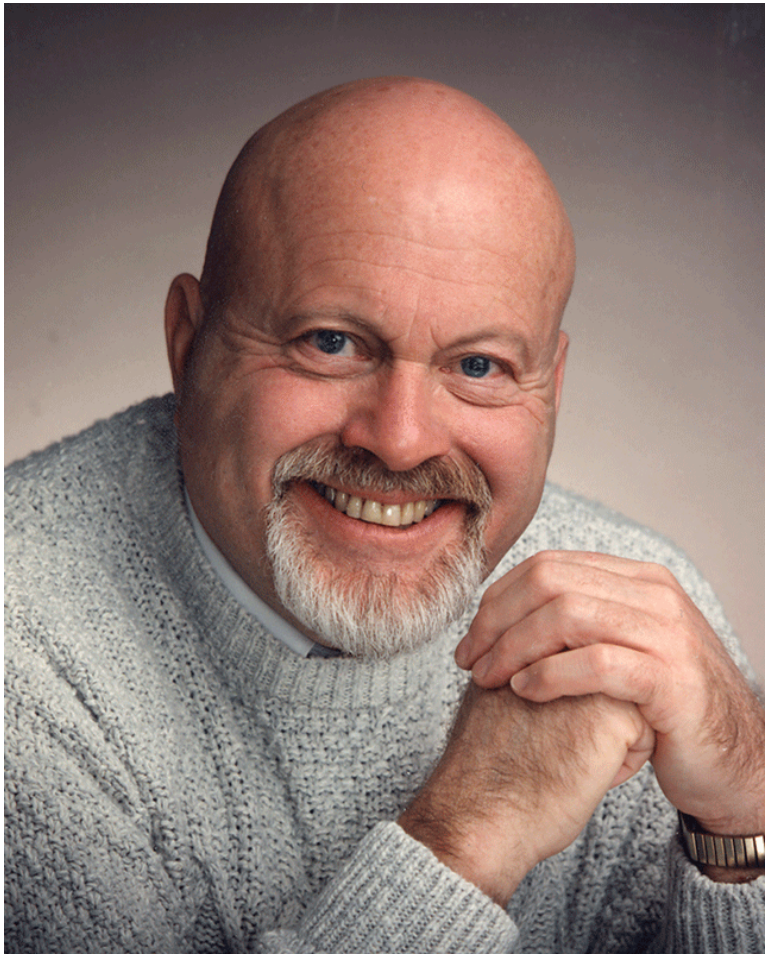
Warren T. Norman (1930 - 1998)



- SMEP president 1971
- Towards an adequate taxonomy of personality Norman (1963)
- Partly semantics (Passini and Norman, 1966), but agreement increases with familiarity (Norman and Goldberg, 1966)
- Structure of self and other agreement (Norman, 1969)
- 2800 personality trait descriptors (Norman, 1967)

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Lew Goldberg (1932 - 2026)



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1. SMEP president 1974 Sells award 2006
2. PhD from UMichigan (E Lowell Kelly advisor) 1958
3. Visiting Prof Stanford then University of Oregon and Oregon Research Institute (1960-2026)
4. Field Selection Officer, US. Peace Corps 1962-1966.
5. Originator of SMEP “Show and Tell”

Lew Goldberg

1. Man versus models of man (Goldberg, 1970)
2. Coined the term “Big Five” and gave them the labels that we still use. (Norman had called them factors 1 ... 5)
3. Parameters of personality inventory construction and utilization: A comparison of prediction strategies and tactics (Goldberg, 1972) compared scale construction methods.
4. Using the 2,800 words identified by Norman (1967) found “within any pool of variables that is based on a reasonably representative sampling of the English lexicon of trait adjectives, there will be substantially more variables associated with each of the first three factors than with each of the last two.” p 1222
5. Used PCA and varimax on adjectives.

Lew, the IPIP and the Eugene-Springfield sample

1. Lew assembled an open source set of short stem items and released the items and some scales to the world as the International Personality Item Pool (Goldberg, 1999).
2. Over several years, he gave commercial and research inventories to a sample of about 1,000 conscientious, paid volunteers who lived in Eugene or Springfield, Oregon.
3. Then he created short stem items similar to (identical to ?) items in the commercial inventories and developed scales that matched 100s of existing scales (Goldberg et al., 2006)
4. Others have used IPIP items to target specific inventories (e.g. the IPIP-NEO Johnson, 2014, 2015).
5. We could now all roll our own inventories using a shared and open source item pool.
6. Starting with IPIP items and using Massively Missing Completely at Random designs Condon (2014) and colleagues has extended this item pool to more than $2.5 * 10^6$ subjects for more than 5,000 items.

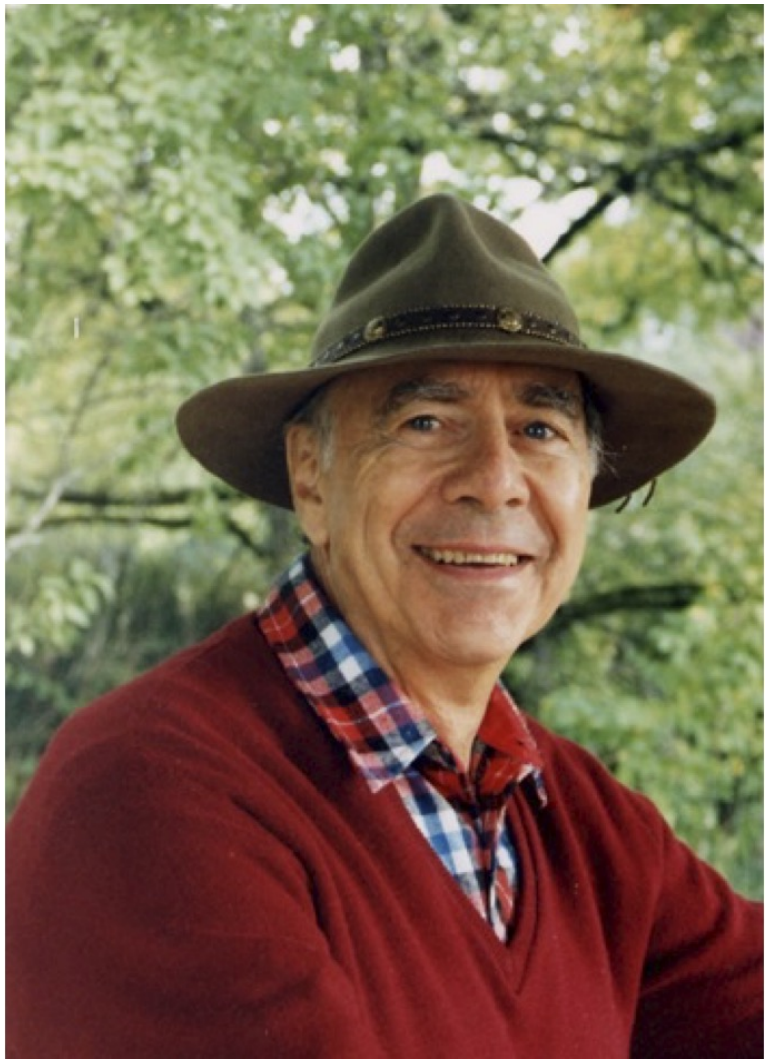
Paul Costa (1942 -)



1. NIH research on aging Costa and McCrae (1980, 1992)
2. Originally took Eysenck 2 factor model and added openness (NEO)
3. Added Liebe and Arbeit to revised NEO-PI (Costa and McCrae, 1980)
   - Highly structured 5 dimensional model with 6 facets to each dimension.
4. Thought that the IPIP would ruin the field

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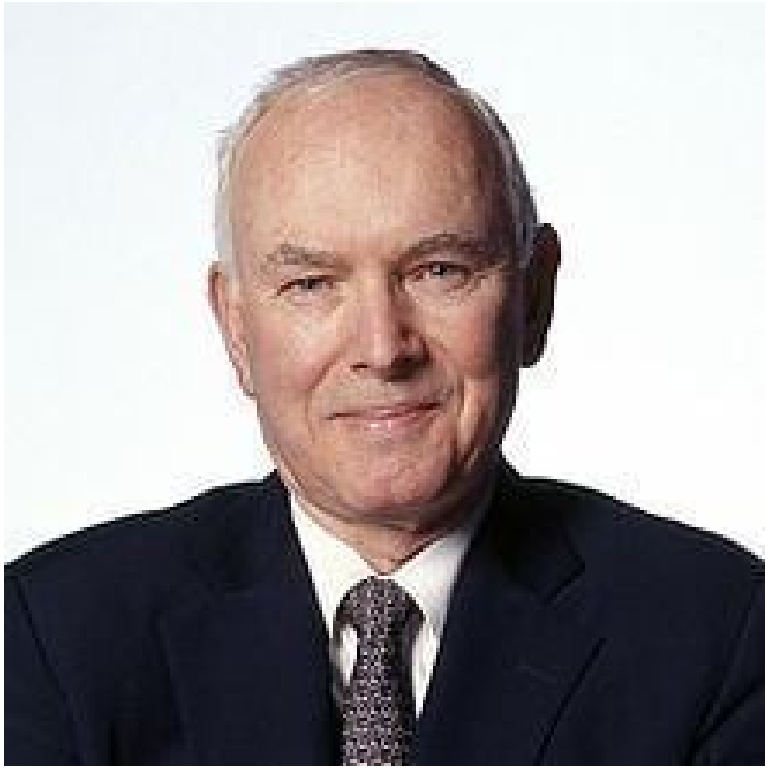
John Digman(1923 -1998)



1. SMEP president, 1978
2. Dimensions of child personality (Digman, 1963) led to the factors of the natural language (Digman and Takemoto-Chock, 1981) and the emergence of the five factor model (Digman, 1990) which perhaps had a higher order structure (Digman, 1997).
3. Retired to ORI. Longitudinal data set of health aspects of personality (Hampson and Goldberg, 2006).

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Robert Hogan (1937 -



1. A major sceptic of trait theory as practiced.
2. Emphasis upon predictive utility (the Hogan Personality Inventory) Hogan and Hogan (1995)
   - Although actually emphasizing Homogeneous Item Composites used a six factor model for marketing purposes.
3. Emphasized the need for theory. The socioanalytic theory of personality (Hogan, 1982; Hogan and Blickle, 2013)

Auke Tellegen (1930 - 2024)



1. Measurement of personality and affect.
2. Seven factors of personality in the MPQ (Tellegen and Waller, 2008a)
3. Dimensional models of affect Tellegen et al. (1999)
4. The PANAS (Watson et al., 1988)

Andy Comrey (1923 - 2016)



1. SMEP president 1987
2. Developed an algorithm for Minimum Residual Factor Analysis (Comrey, 1962).
3. Emphasized the use of Factorially Homogeneous Item Composites (FHIDs) when developing personality scales.
4. Suggested 8 dimensions for the Comrey Personality Scales (Comrey, 1995, 2008).
5. Emphasized factor analysis as a tool for scale revision (Reise et al., 2000).

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Reise, Waller and Comrey, 2000

1. "We cite the five-factor model not because we believe it to be revealed truth or the best map of the normal- range personality domain but rather because it so clearly makes explicit the situation researchers face when proposing new constructs and trying to develop factor-analytic-based measures of them. Specifically, psychological constructs have a hierarchical structure such that different constructs have different levels of conceptual breadth (Comrey, 1988; Guilford, 1975; John, 1990; West & Finch, 1997)." (p 288 Reise et al., 2000)
2. "Measures of higher order dispositions provide optimal prediction of heterogeneous/complex criteria, whereas narrow-band measures are most efficacious in predicting a specific criterion" (p 288)

Personality research outside of the dimensionality debate

1. A number of members are known to SMEP for their methodological contributions but are also well known outside of SMEP for their substantive research.
2. This list is neither exhaustive nor complete but includes those who have made SMEP enjoyable.

Herbert Wolfang Eber 1928- 2016



1. Born in Vienna and fled with the Kindertransport to the UK and then the US.
2. Ph.D. from UNC in clinical and a long time collaborator with Ray Cattell
3. President of SMEP 1990
4. Long time executive director of SMEP.
5. Personality of cops and robbers.

Leona Aiken (1943 -



1. SMEP president 2006
2. Best known for her work on regression (Cohen et al., 2003; Aiken and West, 1991)
3. Substantive interest in health psychology
4. A leader in encouraging quantitative training and as a mentor.

Steve West (1946 –



SMEP president 2007
Sells Award 2011

1. Known to SMEP for his work on regression (Cohen et al., 2003; Aiken and West, 1991)
2. Known to the world for " the creative integration of sophisticated quantitative methods with empirical research in the psychological sciences. He is known for building methods around real substantive problems rather than treating them as a separate specialty." (Humboldt foundation)
3. Editor of *Journal of Personality* and *Psychological Methods*,

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Wayne Velicer (1944 - 2017)



- SMEP president, 2008
- See Harlow et al. (2021) for a lovely discussion of Wayne's contributions.
- Transactional model of health behavior change (Prochaska and Velicer, 1997)
- Number of factors problem (Velicer, 1976; Zwick and Velicer, 1986)
- Use of PCA (Velicer and Jackson, 1990; Goldberg and Velicer, 2006).

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Dan Ozer (1953-)



- Jack Block Ph.D 1982
- President of ARP (2014-2015)
- Evaluating effect sizes Ozer (2007); Funder and Ozer (2019),
- Consequential correlates of personality Ozer and Benet-Martinez (2006)
- Personality assessment Ozer and Reise (1994)

Mix of Sustantive and Quantitative Contributions

Table: SMEP

Member	Quantitative	Substantive
Wayne Velicer	MAP/PCA	Theory of Change
Steve West	Regression	Diversifying the field of personality
Leona Aiken	Regression	Health Psychology
Pat Shrout	ICC	Dyadic interaction
Dan Ozer	Effect size measurement	Personality assessment
Jack Block	Response style myth	Personality Development
Bob Hogan	Hogan Assessments	Biosocial theory
Andy Comrey	Minres, tandem rotation, FHID	Personality scales
Steve Reise	IRT/bifactors models	Patient reported outcomes

Joe Rodgers (1953 -



- President SMEP 2004
- Primary interest is building mathematical models of human behavior, with substantive interest in adolescent transition behaviors including smoking, drinking, delinquency, and sexual behavior.
- Emphasis on teaching methods (Rodgers and Nicewander, 1988)
- Organized a conference (and book) on how to teach quantitative methods (Rodgers, 2020)

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Niels Waller (1957 -)



- SMEP president 2021
- The structure and measurement of personality (Tellegen and Waller, 2008b; Waller, 1999, 2006)
- Fungible weights is regression (Waller, 2008)
- Factor indeterminancy (Waller, 2023) and local minima in factor rotation (Nguyen and Waller, 2023)

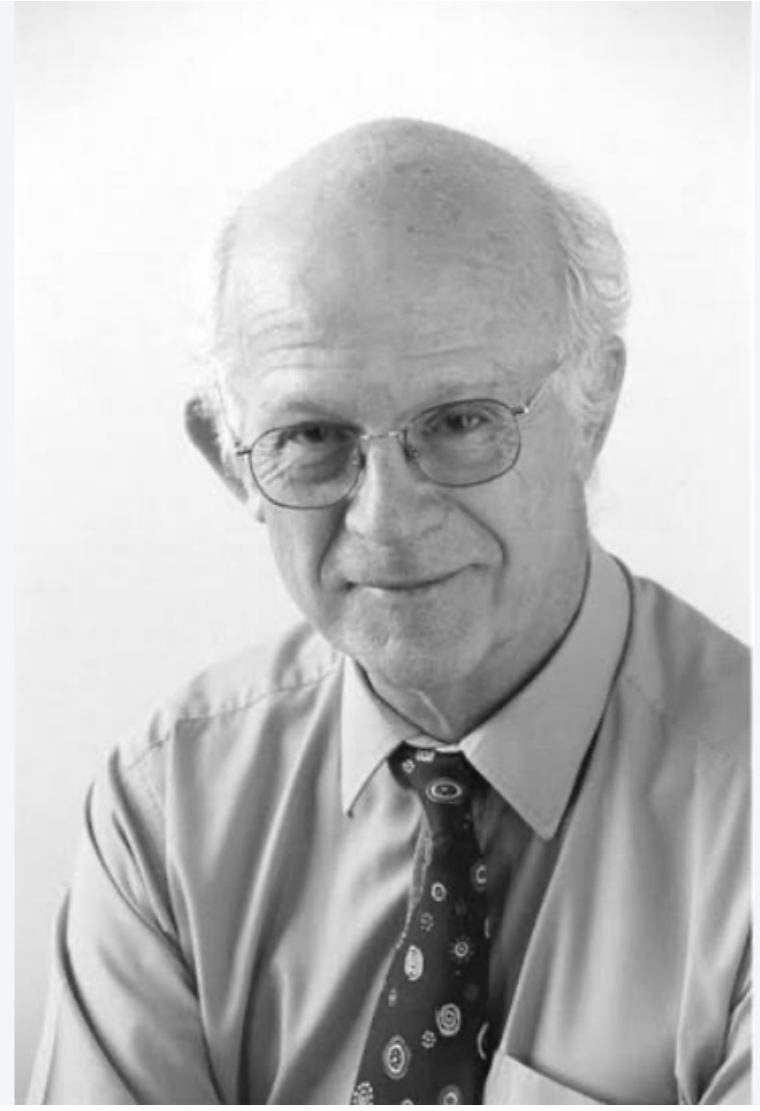
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Keith Widaman (195? -)



- SMEP President 1996
- Cognitive ability and development
- PCA vs FA Widaman and Thompson (2003); Widaman (2018)
- Simple models can be better Widaman and Revelle (2023a,b)

Roderick P McDonald (1928 - 2011)



1. SMEP President 2002
   Sells award 2001
2. As an example of the benefits of collaboration between substantive and measurement researchers, Rod was a co-author with Zinbarg et al. (2006) but refused to be part of Zinbarg et al. (2005) because we said that items have reliable variance over and beyond the factor model. (Which they do.)

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Joseph Royce (1921-1989)



- Founder of Center for Advanced Study in Theoretical Psychology at the University of Alberta.
- Known for his attempts at unified dynamic theory:
- Factors as theoretical concepts (Royce, 1963).
- Personality integration: A synthesis of the parts and wholes of individuality theory. (Royce, 1983)
- But “factors are fictions” critique by Revelle (1983).

Michael Browne (1937 - 2018)



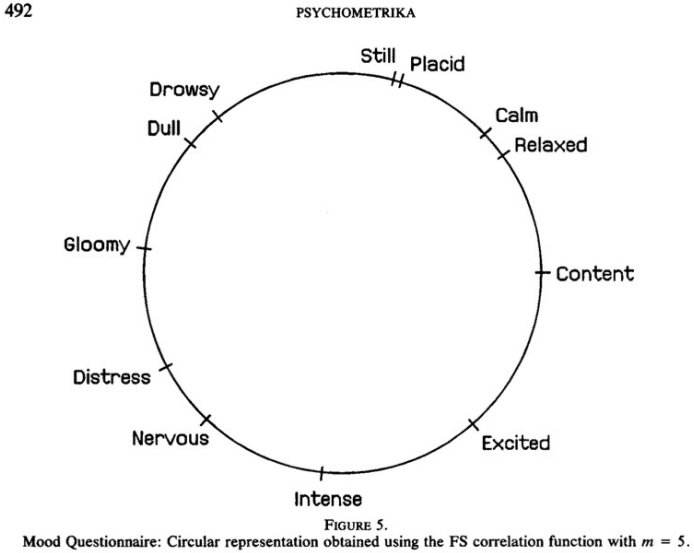


FIGURE 5.
Mood Questionnaire: Circular representation obtained using the FS correlation function with $m = 5$.

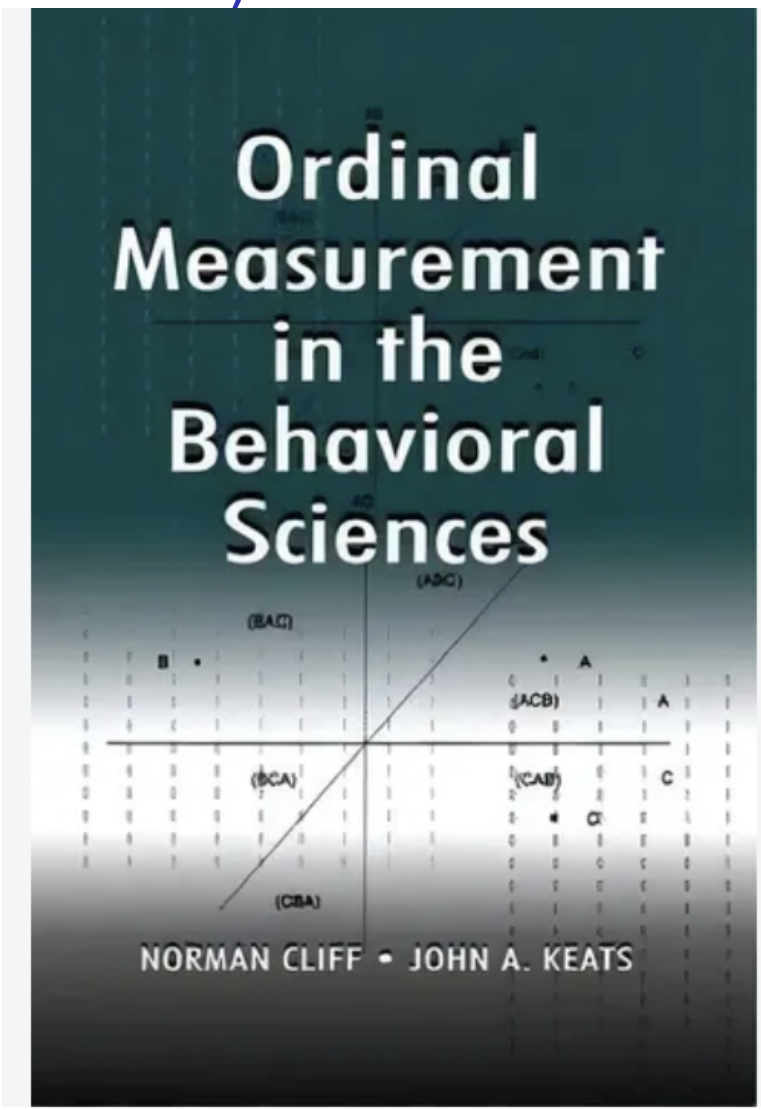
- SMEP President 1998
  Sells award 2002
- As an example of the benefits of collaboration between substantive and measurement researchers Michael used unpublished data from my lab for his Psychometric Society presidential lecture on the circumplex (Browne, 1992)

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Norm Cliff (1939 –)



SMEP president: 1983 Sells award 1995



Thoughtful advice in replacing Sell as managing editor

Bud MacCallum (1947 - 2024)



- SMEP president 2000,Sells award 2012
- Emphasized issues of real data when considering model fit.
- Unlike ML approaches, real data are not multivariate normal MacCallum et al. (2007),
- We need methods that work on real data Preacher and MacCallum (2003)

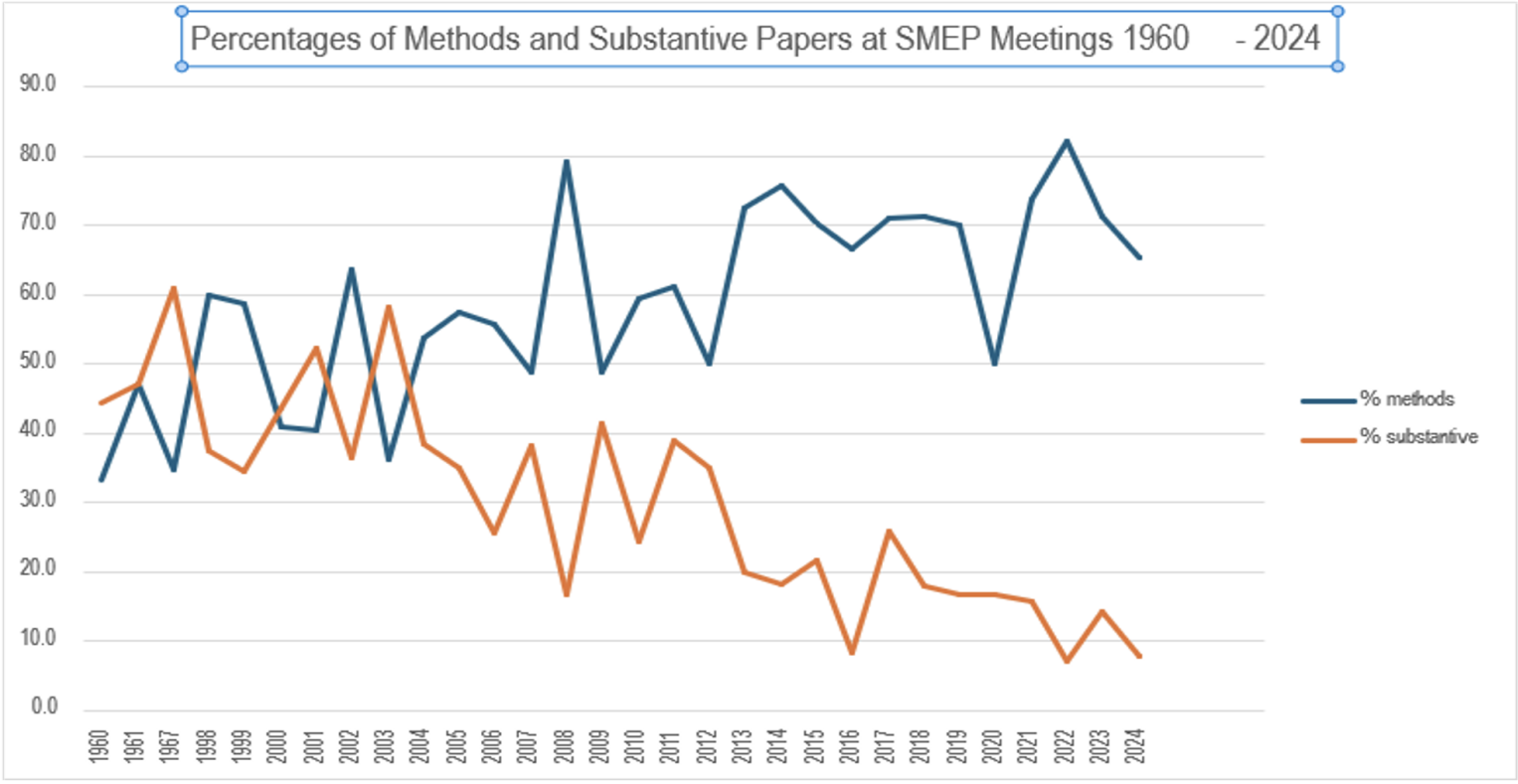
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Why SMEP should continue its mission to combine substance and methods

1. While preparing this talk, I thought that perhaps SMEP has succeeded and now substantive researches don't need to attend because they have started other groups such as ARP or ECP which includes methods.
2. Several of my SMEP colleagues disagreed (strongly).
3. From a biased sample, there was concurrence that SMEP still needs to follow the initial charter.
4. Thus, I repeat my opening remarks and make a plea to our current members when we elect new members and give presentations.

Some data showing this trend away from substantive talks (from Debbi Bandolos)

Figure based on coding from select SMEP Meeting Programs (1960, '61, '67, 1989-2024)



Debbi Bandolos shared slides from Cornell meeting showing this trend

An optimistic view

1. SMEP was founded to facilitate discussion between substantive and methodological researchers.
2. Over the first 30-40 years it has done so, and the mission is still critical and we still need to do so.
3. Partly because of contributions from SMEP members, the field of personality has flourished. It has seen the founding of ARP, ECP, and ISSID.
4. Meetings of ARP and ECP have included modern methods, but also some egregiously out of date methods.
5. Personality theory is stronger because of the opportunity to discuss methods with leading methodologists. But this is not a one way street, for the methods developed to assess personality structure and causality, both dynamic and cross sectional, have proved useful to the broader field (e.g., the *psych* package for R, Revelle, 2026; R Core Team, 2026).

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Conclusion

1. It is indeed a great honor to be given the Saul Sells award and to give this talk.
2. I hope I have given us something to think about as we plan future meetings and select new members and enjoy these "peaceful and beautiful surroundings" for thoughtful discussions.
3. As is true of all of my talks and articles, this talk is available at my web site: https://personality-project.org/sapa/

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