

I. Common Confusions: From Non Sequiturs

Avoid these!

(\neq means "does **not** equal or imply")

1. g matters \neq g determines our fate
2. g is not everything \neq we can overcome its effects (e.g., just use talents better)
3. genes matter \neq environments don't
4. environments matter \neq genes don't
5. genes matter more than environments \neq environments not important
6. biological \neq genetic
7. black \neq lower SES
8. whites have higher average IQ than blacks \neq all whites have higher IQs than all blacks
9. similarity of parents' SES and children's adult SES \neq no social mobility
10. the existence of social classes is inevitable \neq social classes are (intergenerational) castes
11. people are genetically-driven niche seekers \neq people end up in the environments best suited to their genotypes
12. family differences (in SES) don't create IQ lasting differences \neq family differences don't affect children's development
13. differences in the normal range of family environments don't affect IQ \neq more extreme differences won't have an effect on IQ
14. people respond differently to the same environments depending on their IQ \neq different environments have no effect on IQ

II. Common Confusions: From Conflating Different Ideas

Please be careful to distinguish:

SES:

- child's social class *background* (parents' SES) and eventual *adult* SES (outcomes)

Environment:

- shared vs. non-shared effects
- differences in environments vs. the *effects* they (may) have on IQ

Discrimination:

- discrimination vs. difference (being unequal)
- discrimination vs. test bias
- test bias (mismeasured intelligence, which creates *false* differences in *scores*) vs. nature-nurture (2 sources of *real* differences in *g*)

Heredity:

- heritability of a trait (% of IQ variation in one generation due to genes) vs. transmission of genes from one generation to another (child gets 50% of genes from each parent)
- getting 100% of genes from one's parents vs. being 100% like them genetically (because child gets 50% of its genes from mother, 50% from father)

Impact of environment:

- on IQ vs. on other outcomes (such as motivation, jobs)

What IQ/g tests measure:

- phenotype, *not* genotype

IQ differences:

- among *individuals* (within-group differences) vs. between groups' averages (between-group differences)

Source of group differences:

- between social classes vs. between races

Responses to vs. effects of environments

- genetically different people respond differently to the *same* environment vs. different environments cause different IQs

III. Sophistries: Substitute Labels for Logic/Evidence

Devil Words

- racist
- sexist
- elitist
- dangerous

God Words

- democratic (e.g., ability grouping)
- equality
- diversity
- tolerance

Elastic Words (many possible referents; used to suggest that research on one referent generalizes to many)

- success
- disadvantaged
- SES
- intelligence

IV. Sophistries: False Analogies

- Group differences (e.g., race-IQ) research should be subjected to:
 - Higher scientific standards, because it is like “working with dynamite” or “dangerous play” in sports
 - i.e., ideas are *like* physical hazards
 - A special “ethical code” to prevent “any segment of society...from feeling threatened,” just like we have human subjects rules to protect research participants from harm
 - i.e., unspecified, distant, non-participants are *like* specific individuals recruited for direct involvement
 - i.e., being exposed to certain abstract ideas is *like* being exposed to unacceptable risks in human experimentation
 - Public censure, because it is like pornography
 - i.e., impolitic scientific inquiry is *like* prurient sexual displays with no redeeming social value

V. Sophistries: Fallacies

Four Testable propositions that are fallacies when asserted as *necessarily true*

- Test bias: Egalitarian fallacy (Group mean differences prove test bias)
- Test bias: Standardization fallacy (Tests necessarily biased toward groups involved in creating them)
- Test bias: Culture-bound fallacy (Any cultural content proves test bias)
- Group differences: Hereditarian fallacy (Within-group IQ differences are highly genetic, so between-group differences are necessarily genetic too)

VI. Sophistries: Assorted Others

(Sample from a book chapter)

- Using ambiguous terms that invite mistaken inferences (e.g., “domain general” connotes a “general factor”)
- Using too-general terms that invite mistaken inferences (the research “participants” from the school were actually gifted children)
- Using inaccurate terms that invite mistaken inferences (“more precise” measure of success is used to describe a *very narrow* criterion)
- Using detail in a manner that skews perceptions of what is important (superfluous high-sounding detail about statistical analysis shifts attention away from what is most pertinent, such as the irrelevance of the results to the question at hand)
- Including superfluous material that creates a favorable contrast despite serious flaws (e.g., highlighting lack of disparate impact for a test of disappointing validity)
- Making unfounded comparisons that diminish or deride persons or ideas (proponents of opposing views are like “egocentric children”)
- Inviting unwarranted generalizations on the basis of examples & anecdotes (“smart students can fail”)
- Implying support for a strong claim by providing evidence for a similar-sounding but weak one (evidence that “tacit knowledge adds incremental validity to IQ in predicting job performance” is reported in such general words as to connote support for the much stronger conclusion that “practical intelligence predicts success at least as well as does IQ”)
- Skewing the article’s denotative network, that is, its explicit content and argument (reports only putative successes for own theory and only putative failures for opposing theory)
- Skewing the article’s connotative network, that is, its implicit content and organization (scientific analysis is weak, disorganized, and unclear, but implicit non-scientific narrative is made strong and clear—for example, juxtaposes opposing view with discussions of social injustice, and uses God words for own view while using Devil words for opposing view).