



Flynn Effect 1: Empirical Puzzle

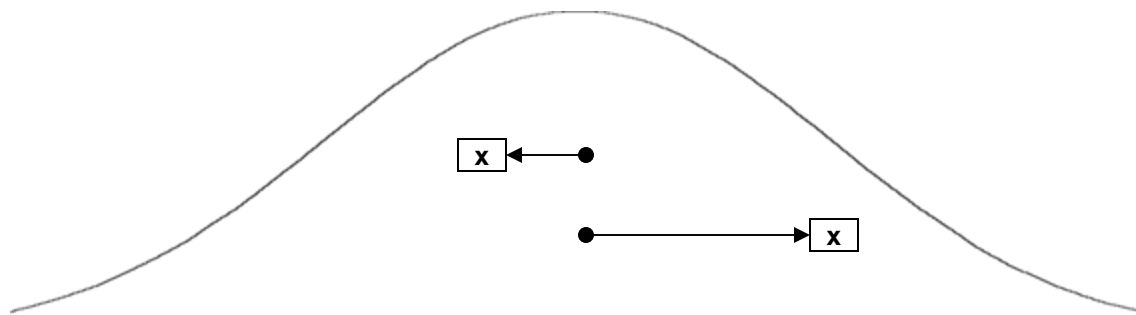
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Newark, DE 19716

3 premature claims—they don't fit the full pattern of evidence

- IQ rise = rise in general intelligence
(general learning & reasoning ability, or *g*)
- IQ rise caused by cultural change
(donning “scientific spectacles”)
- IQ rise cannot be genetic

IQ tests don't measure level or amount of anything

- IQ = deviation score (standing within age group)
- IQ score has no intrinsic meaning



Ravens

Raw score

Age	1st	15th	50th	85th	99th
7	4	11	17	28	36
8	6	14	23	34	42
9	8	18	29	38	46
10	11	22	34	42	49
11	14	27	37	45	51
12	17	31	39	47	53
13	20	33	41	49	55
14	23	35	43	51	57
15	25	37	45	52	58
16	27	39	47	54	59

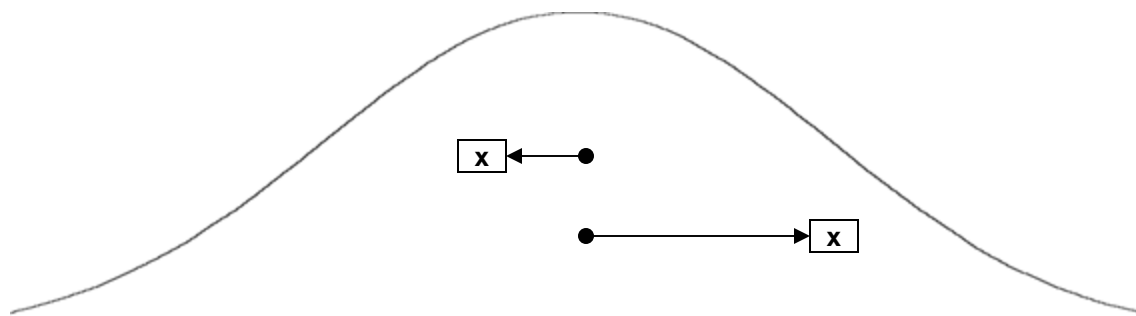
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IQ: 55 70 85 100 115 130 145 →

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Example of Flynn effect—age 13 now equals prior age 16



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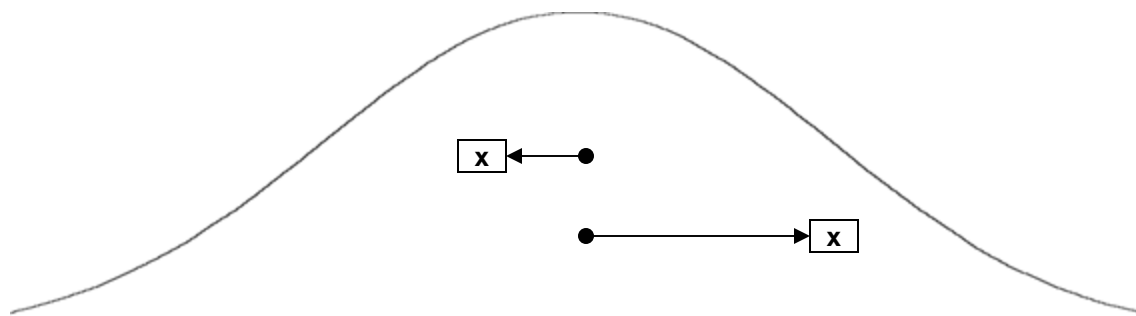
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5 more items correct = 15 IQ points

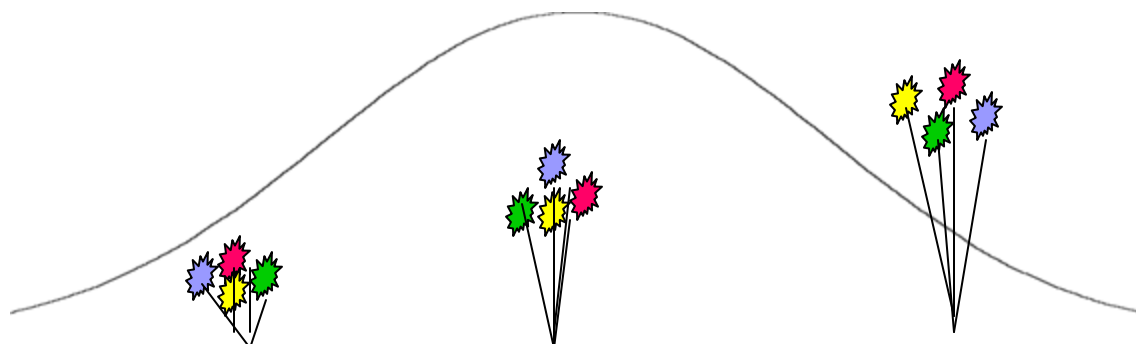
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Some subtests increase, others not

No necessary effect on positive manifold (g)

No necessary effect on heritability

No paradox



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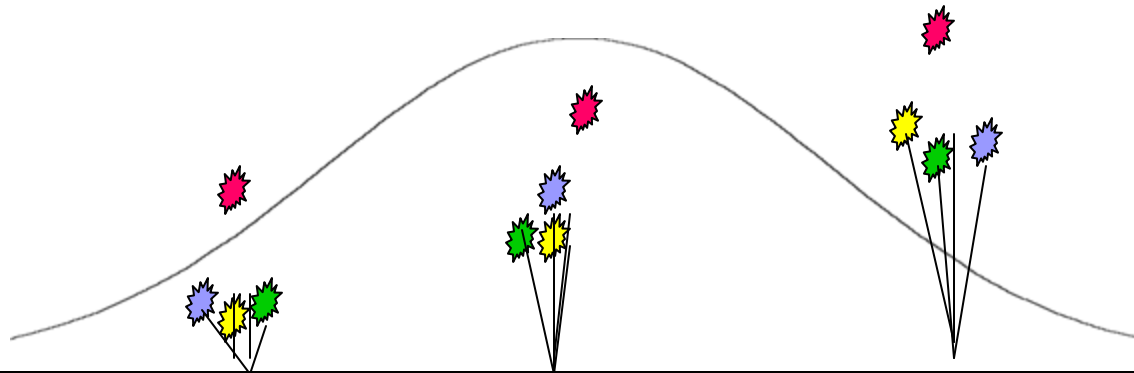
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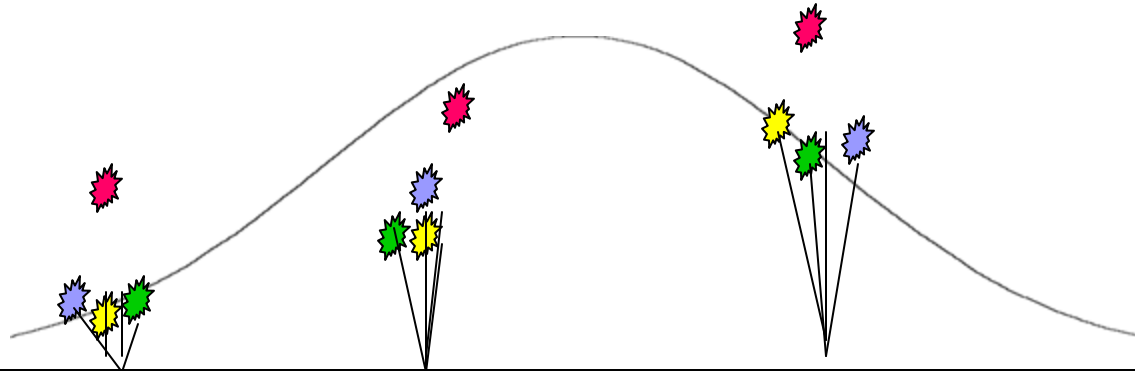
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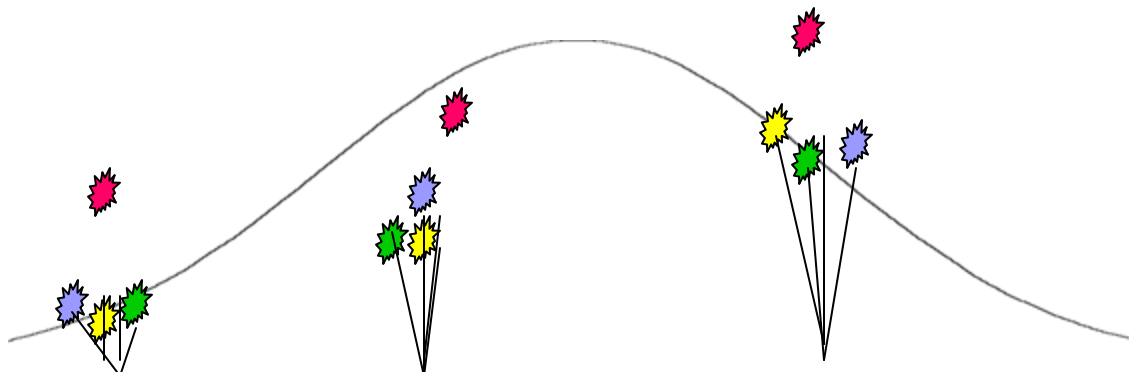
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	IQ scores have risen a lot, but has general intelligence?				
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Sample IQ Items—Manifest Content Irrelevant to *g*

	Easy	Moderate	Hard
<i>Fill in the next two numbers</i>	3, 5, 7, 9, __, __	3, 5, 6, 8, 9, __, __	10, 9, 8, 9, 8, 7, __, __
		Infer the rule	
<i>Name one similarity</i>	orange—banana (93%)	table-chair (55%)	Praise-punishment (25%)
		More abstract	
<i>Define the word</i>	conceal (87%)	reluctant (50%)	ominous (20%)

% = % of 16-65 year-olds getting at least partial credit for answer, WAIS, 1955

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<i>Define the word</i>	Complexity is the active ingredient: More complex tasks are more " <i>g</i> loaded"		

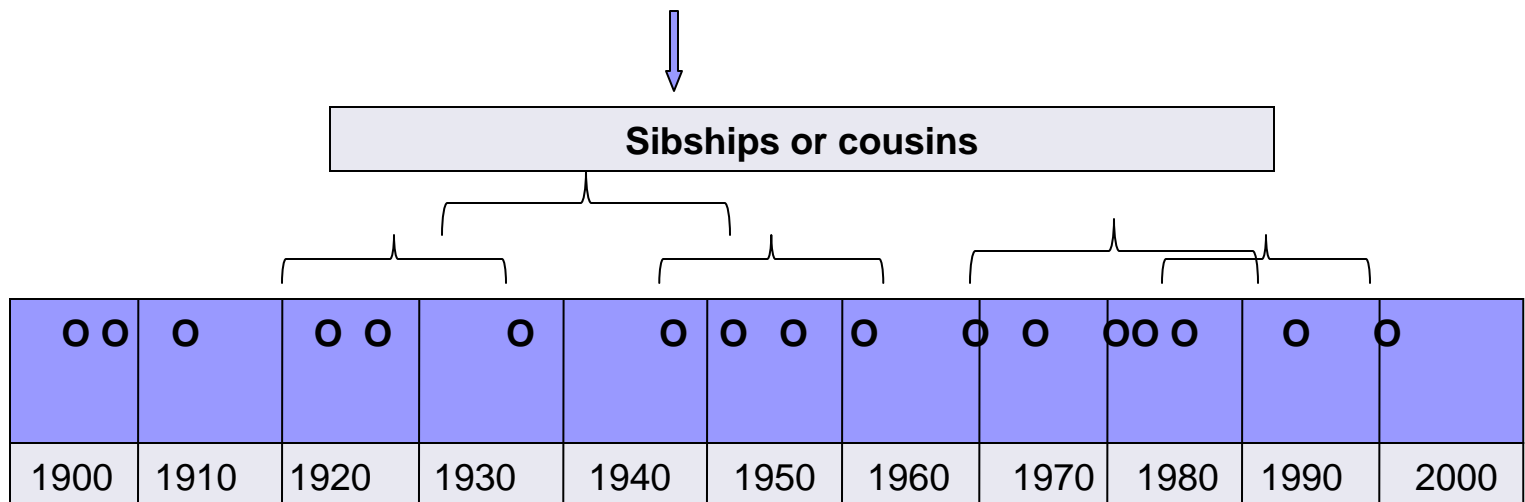
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IQ increases strictly cultural?

- Trends in height mirror trends in IQ
- Height trend (and paradoxes) cannot be explained by:
 - Wearing scientific spectacles
 - Individual multiplier (any genetic advantage triggers environmental ratcheting of all)
 - Social multipliers (group means influence growth)
- Biology cannot be ruled out for IQ trends

IQ/height trends strictly non-genetic?

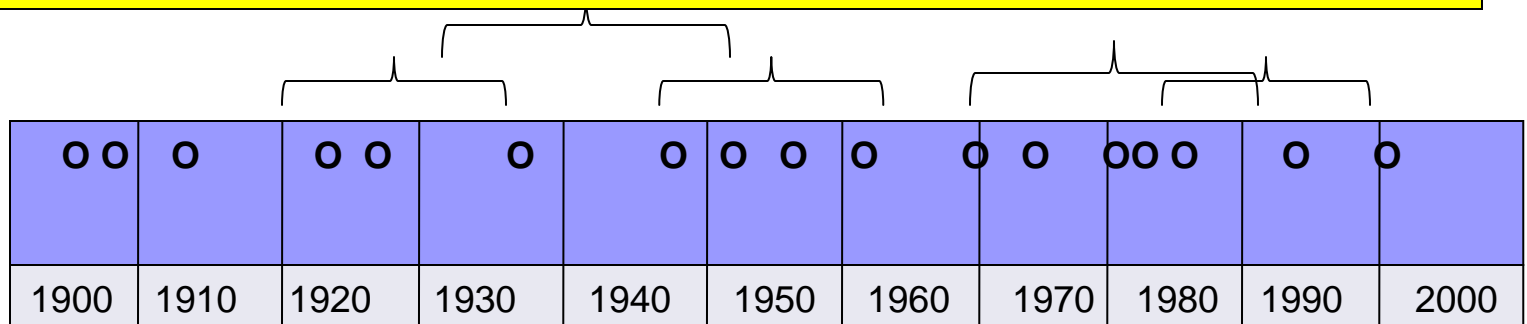
- Many claims, but little evidence
- Family studies (showing high heritability, no shared effects) cannot be divorced from Flynn effect
- Cultural diffusion is not regular, uniform, pervasive
- Are gains within or just between families?
 - Heterosis predicts none within families



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Current hypotheses interesting, but causal mechanisms vague & post hoc





Thank you