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GOAL:      METHINKS IT IS LIKE A WEASEL
STARTING:  WDL?MNLT DTJBKWIRZREZ LMQCOP
TRIAL #1:  WDLTMNLT DTJBSWIRZREZ  MQCOP  1  MUTATION
...
TRIAL #10: MDLDMNLS ITJISWHRZREZ MECS P  9  MUTATIONS
...
TRIAL #20: MELDINLS IT ISWPRKE Z WECSEL 10  MUTATIONS
...
TRIAL #30: METHINGS IT ISWLIKE B WECSEL  6  MUTATIONS
...
TRIAL #40: METHINKS IT IS LIKE I WEASEL  4  MUTATIONS
...
TRIAL #43: METHINKS IT IS LIKE A WEASEL  1  MUTATION

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Figure 2. Output from the first run of Dawkins' simulation.^{4,5}

point, then only the letter positions mismatched with the target are reshuffled for every 'generation'. The intermediate most closely matching the goal is flawlessly retained every time as the starting point for a new generation.

Now, Dawkins fails to inform us as to how many progeny permutations are generated to choose from. An astronomically large number would lead to instant success everytime. A smaller number would provide less opportunities to move in the correct direction. **I used the worst possible scenario in the paper** to show convergence is unavoidable: only one surviving mutant is produced per generation, offering a choice between it and an identical copy of the parent. The analysis, based on well-known binomial probability distribution formulas, revealed that any target sentence cannot fail to be matched, irrespective of length and starting letter configuration using Dawkin's constraints.

Clearly, **the only effect of extra mutants per generation is that the sequence converges more rapidly to the goal!** It becomes less likely to reproduce only misaligned letters. Also, occasionally several letters would be concurrently 'corrected' within that generational attempt. The proof lies in the much lower number of iterations that Dawkin's reported simulations required than mine, for which 10,000 simulations were run.

There are significant advantages to the approach published in this journal. It makes transparent that the example is indeed a *'rigged fruit-machine'* affair, which both respondents failed to recognize. In addition to the obvious flaws already discussed in my article, it becomes easy for others to add to this list. For example, if Dawkins' analogy had any validity, several other outcomes are predicted:

- Lengthening the target sentence results in a vanishingly small probability of finding any mutation which does *not* lead closer to the goal starting from the first generation! Consider a random sequence the length of an encyclopedia, to mimic a real genome. A single mutant progeny, to fail to make progress within that generation, would have to fail to match any of the millions of letter positions available. This is virtually impossible statistically. Worse still, Dawkins' example would allow perhaps another 1000 mutants to also try within the same generation period!
- As a long sentence converges to the target, eventually it would be far more likely that one of the letters already correctly lined up would misalign than that the one or two remaining letters should get lucky within that generation. This reflects the real-world constraint that there is a vastly greater number of nucleotide arrangements which can

prevent a gene from functioning than of successful configurations.

- The evolutionary assumption, that a novel, complex function missing in an original population has evolved to produce it in a descendant population has been allegedly demonstrated by Dawkins through the following 'proof': a path over time of discrete and viable mutations is *assumed* to exist and a mechanism is *assumed* to exist which cannot fail to converge to any and every outcome by permuting the original genome. As pointed out in the journal article, accepting that kind of argument and the assumptions would make it possible to 'prove' anything since the outcome can never fail to be met.

The objections offered only strengthen the argument that Dawkins' example is irrelevant to the real world.

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Cainan in Luke 3:36: insight from Josephus

Because Luke 3:36 has the extra name Cainan in the genealogy compared with Genesis 10 and 11,

and 1 Chronicles 1, sceptics have used this difference to attack biblical inerrancy. However, as Sarfati pointed out,¹ the difference was *not* an error in the God-breathed (2 Timothy 3:15-17) original autographs of Scripture, but one of the *extremely few* copyist's errors in the manuscripts available today. To put this into perspective, we have the original text to 99% accuracy in the Old Testament and >98% in the New Testament.² Most of the variation in the remaining <2% is merely stylistic, and not a single doctrine of Christianity relies on a debatable text. Sarfati, after Morris,³ thought that the error came about when an early copyist of Luke inserted the extra name, and from there it was incorporated into later Septuagint (LXX) manuscripts.

This is strongly supported by information from the Jewish historian Flavius Josephus (AD 37/38-c. 100) about the genealogies. The following is a table comparing the genealogy from the Hebrew text, the LXX, and Josephus⁴ giving years after the Flood at birth of the son mentioned.

If Josephus did not use the LXX, he must have used some document based on the LXX for it repeats too many of the mistakes of the LXX to be a chance occurrence. It appears that at the time of Josephus, the extra generation of Cainan was not in the LXX text or the document that Josephus used, otherwise Josephus

would have included it! If the LXX contained the reading, Josephus either omitted it by mistake (which is not likely) or held the reading in low esteem. We know that when Jerome (c. AD 347-419/420) translated the Vulgate (Latin translation of the Bible) in the 5th century AD, he did not use the LXX in spite of Augustine's (AD 354-430) pleadings because Jerome said it was too inaccurate. He used the Hebrew text which did not include the variation.

The great Baptist theologian Dr John Gill provided further strong support that Cainan was a spurious addition. He summarized the textual evidence as follows in his major Bible commentary.⁶

'Ver. 36. Which was the son of Cainan, &c. This Cainan is not mentioned by Moses in Ge 11:12 nor has he ever appeared in any Hebrew copy of the Old Testament, nor in the Samaritan version, nor in the Targum; nor is he mentioned by Josephus, nor in 1 Ch 1:24 where the genealogy is repeated; nor is it in Beza's most ancient Greek copy of Luke: it indeed stands in the present copies of the Septuagint, but was not originally there; and therefore could not be taken by Luke from thence, but seems to be owing to some early negligent transcriber of Luke's Gospel, and since put into the Septuagint to give it authority: I say "early", because it is in many Greek

copies, and in the Vulgate Latin, and all the Oriental versions, even in the Syriac, the oldest of them; but ought not to stand neither in the text, nor in any version: for certain it is, there never was such a Cainan, the son of Arphaxad, for Salah was his son; and with him the next words should be connected.'

The evidence from Josephus and Gill shows conclusively that the extra name Cainan is not part of God's original Word, but due to a later copyist's error. Thus it cannot be used as an argument against biblical inerrancy (nor can it support ideas of gaps in the Genesis genealogies).

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CANADA

References

1. Sarfati, J.D., Cainan of Luke 3:36, *CEN Tech. J.* 12(1):39-40, 1998.
2. White, J.R., *The King James Only Controversy*, Bethany House Publishers, Minneapolis, MN, pp. 38-40, 1995.
3. Morris, H.M., *The Genesis Record*, Baker Book House, Grand Rapids, MI, pp. 280-283, 1976.
4. Josephus, *Jewish Antiquities* Books I-IV, Harvard Press, Cambridge, MA, p. 73, 1930; Loeb Classical Library No. 242.
5. Note that Abraham was not Terah's firstborn. Genesis 12:4 says Abraham was 75 when he left Haran, and this was soon after Terah died at 205 (Genesis 11:32), and the difference 205-75 means Terah was actually 130 years old when Abraham was born, not 70 (Archbishop Ussher (1581-1656) seems to have been the first modern chronologist to have noticed this point). The latter figure refers to Terah's age when the oldest of the three sons mentioned was born — probably Haran.
6. Note on Luke 3:36, In: John Gill, D.D., *An exposition of the Old and New Testament; the whole illustrated with notes, taken from the most ancient Jewish writings* (nine volumes), London: printed for Mathews and Leigh, 18 Strand, by W. Clowes, Northumberland-Court, 1809. Edited, revised and updated by Larry Pierce, 1994-1995 for *Online Bible CD-ROM*.

Patriarch	Hebrew Text	LXX	Josephus
Shem	2	2	12
Arphaxad	35	135	135
Cainan	...	130	...
Shelah	30	130	130
Eber	34	134	134
Peleg	30	130	130
Reu	32	132	130
Serug	30	130	132
Nahor	29	79	120
Terah	70	70	70
Total (Flood to Terah's firstborn)⁵	292	1072	993