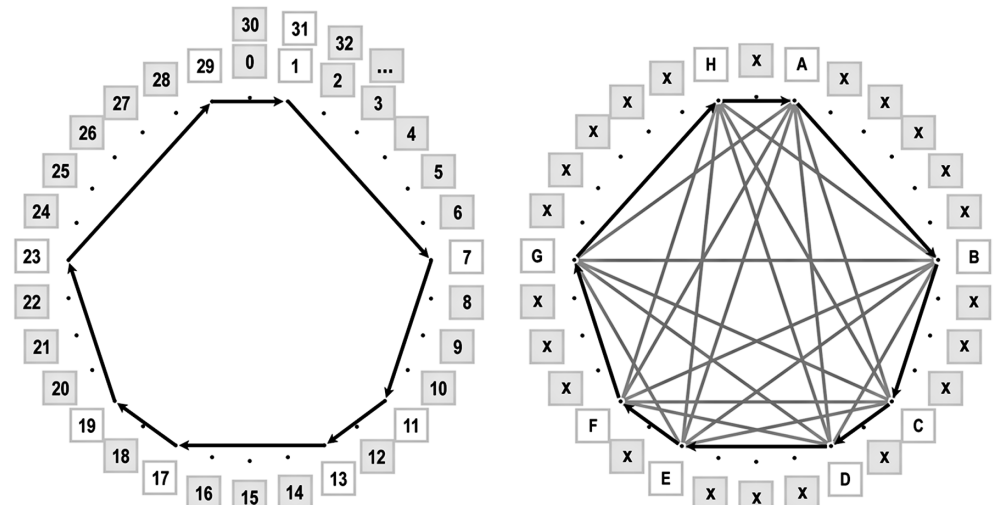


We're taught there is no patterning in the distribution of prime numbers (numbers only divisible by 1 and themselves)--no patterning which predicts the places where primes will emerge within the natural sequence of the counting of numbers. But there is empirical evidence that two synthesized processes are interacting to create a system which produces endless, but predictable, variations. We can see how the system of prime distribution works by making a chart.

If we write the numbers 0 through 29 in a horizontal line, then write 30 through 59 under those numbers, then write 60 through 89 on the next line, and so on—until we've written every number to infinity; all prime numbers in existence (except for 2, 3, and 5) will be found in eight rows lined up under the prime numbers (1, 7, 11, 13, 17, 19, 23, and 29). No primes will ever emerge in the other twenty-two rows except for the numbers 2, 3, and 5. But this continuous cycle is only part of the system of prime distribution. When a prime appears in the cycle, it's involved in another rigorously interacting process. Products based on that prime's sequential multiplication by powers of itself and all emerged primes will appear in future progressions of the eight-position cycle. Here's how it works. The first prime to appear is 7. When 7 is multiplied by itself, the product is 49; so the composite 49 appears in one of the eight locations in the next rotation of the cycle. Then 7 is multiplied by the second prime to appear, 11; so 77 is the next composite to appear. Then 7 is multiplied by the third prime, 13 which results in including the composite, 91. And this continues, 7 is infinitely multiplied by powers of itself and every higher prime. This same process occurs for every prime number emerging in the cycle.

All these composite-products of emerging primes appear in future cyclic progressions of the primes. The appearance of every prime number spawns an endless string of composites which will occupy places in future manifestations of their own cycle. These composite products are factored from the unevenly spaced originating cycle, but the patterning of their factorization is independent of the patterning of the additive formulation of the originating cycle. The system's overall regularity isn't superficially apparent. Rigorous interaction of the independent processes creates a system which generates infinite variation. The space between the emerging primes has a continual tendency to increase—because primes in future cycles are being displaced by more and more composite-products of the previously emerging primes. It's a beautiful system. The variation in the initial appearance of the primes causes a variation in the amount of composites included in future cycles, which then causes further variation in the emergence of primes. It's a process of variations in cause creating new variations in effect which create new variations in cause—and it continues infinitely!

The entire system is completely rigorous, and the appearance of every prime number and every composite can be predicted in advance (see the chart). However, the observably rigorous interaction between the two processes cannot be expressed algebraically. Number theorists are aware of both processes involved, but they identify them as separate features of prime distribution (as a

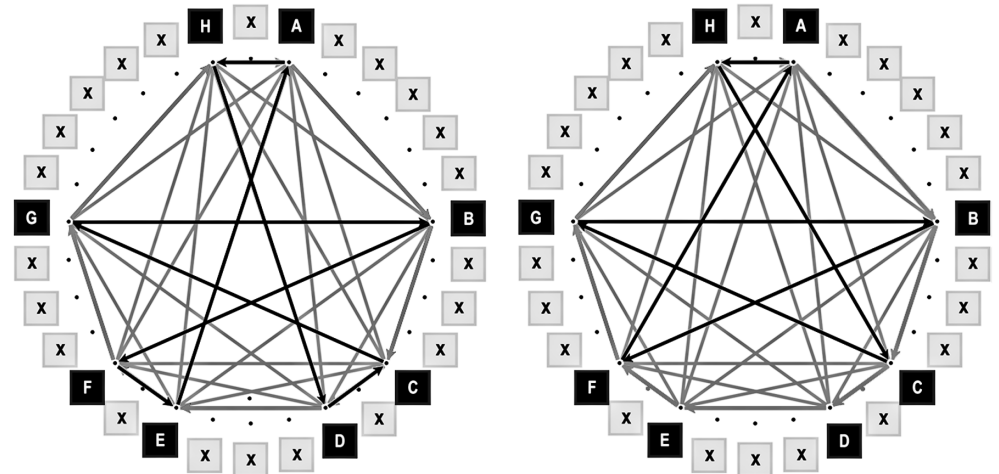


The 1st diagram above illustrates the originating cycle which contains only prime numbers with the exception of unity: 1, 7, 11, 13, 17, 19, 23, 29, (returning to starting position (31) to begin the 2nd cycle). In the 2nd diagram above, [A] thru [H] indicate the same 8 positions where the primes and initial products of previously emerging primes appear as the cycle continues. An [x] indicates the 22 cyclic positions where only composites will appear (see table below which illustrates prime and composite content in verticle rows under the letters indicating positions in the continuous cycle).

TABLE BELOW: White--primes and 1; Gray--composites and 2, 3, & 5; Black--initial composite products of previously occurring primes

x	A	x	x	x	x	x	B	x	x	x	C	x	D	x	x	x	E	x	F	x	x	x	G	x	x	x	x	H	
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119
120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149
150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179
180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209
210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269
270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299
300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329
330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359
360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389
390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419
420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449

Below-Left, the black lines illustrate the patterning of the first cyclic series of factor-7 products: F--7x7--49, E--7x11--77, A--7x13--91, H--7x17--119, D--7x19--133, C--7x23--161, G--7x29--203, B--7x31--217, returning to starting position to begin next factor-7 cyclic series with F--7x37--259. Below-Right, the black lines illustrate the patterning of the 2nd cyclic series of factor-7 products: F--7x37--259, E--7x41--287, A--7x43--301, H--7x47--329, C--7x53--371, G--7x59--413, B--7x61--427, return to F--7x67--469. Notice that positions D & E are skipped.



reduced residue class and a sieving routine) rather than as the components of a single phenomenon. The problem stems from the fact that the two processes are synthesized in a non-dimensional state (Nature isn't bound to the limits of dimension, she needs to correlate cycles that can interact at the speed of light and in the realms of dark matter and dark energy). Algebraic language is syntactically dimensional.

Lack of recognition of the system as a whole has led to the false impression that the future emergence of prime numbers is not known to be infinite. The Electronic Frontier Foundation has been awarding prizes for finding larger and larger prime numbers. However, when we look at the process of prime distribution, it's obvious that new primes will always emerge. Composite numbers in the prime locations are factored from previously emerging primes. If no new primes emerge in the future, the factored composites necessary in the infinitely progressing cycle would not be generated. The amount of future composites would thin out, leaving unoccupied numerical spaces in the 8-position cycle.

We tend to think of numbers as a language that we have created, but the only thing we created is the names for the numerical positions and the formulaic expressions for the relationships we've discovered. The numerical positions and relationships already existed. We have falsely assumed that the logic we apply to the understanding of mathematical relationships is their foundation. Nature created the relationships. Primeness is used by Nature to create a system of markers which uniquely identify specific locations along the landscape of infinite progression. All of Nature's forces have to be kept in sync or the fabric of the universe would fall apart, but Time is an ever evolving continuum. Locations on the landscape of its infinite continuum have to be uniquely identifiable—Nature's forces need reference points to maintain the alignment of their synchronization (that's why prime numbers relate to things like wave properties). If we accept the reality that human consciousness is also a creation of Nature, it makes sense that those same relational constructs appear in human reasoning. The mistake is assuming that limitations (such as temporal aspects of sequencing) that apply to human experience apply to Nature's design.

Creating a visual model of the patterning of the system makes the regularity of the system's structure clearly evident. There is no evidence of random or chaotic behavior. Since 2, 3, and 5 are the only prime numbers within the infinite set which are not included in the system, logic dictates they must be special numbers that are not part of the other class of numbers divisible only by 1 and themselves (I refer to them as elemental numbers). Three exceptions to a predictable set of all other numbers in an infinite class cannot logically be cited as disproving the existence of a rigorous system.

*Description of the system of patterning
Involved in where Prime Numbers occur
within the infinite set of Natural Numbers*

by

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