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Halton Arp, Quasars and Redshifts



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First published February 18, 2018

Halton Arp, who died at the end of 2013, was a very useful gadfly in the recent history of physics, insisting the redshifts of quasars were not caused by doppler. I am certain we will find that he was correct in that, and I will show you how the redshifts are caused without doppler. However, Arp always insisted he was closed out simply for disagreeing with the mainstream, and I am not sure that is true. It is certain that he was unfairly silenced, and that the dialog in astronomy has never been open. I know that firsthand. His claims about politics polluting science are also completely valid. But after reading his books, I think Arp's main problem was that he decided to embrace some wild theories to replace doppler. I am not sure he would have fared any better if he had stuck to being an experimentalist, refusing to theorize. But in hindsight it is clear he would have made more progress in the margins if he had either stuck to data, **or embraced a better theory.**

Science relies on theory to maintain order, and as a theorist I can understand that. So while Arp was correct that letting theories lead data is bad science, we still need theories. The upper levels will not give up old theory until they have something to replace it with, since science can't abide such a vacuum. But while Arp gave a better reading of basic data, his theory was *not* better.

What was that theory? It was the 1977 theory of Jayant Narliker, that the redshifts were explained by increasing particle masses. According to him, the data could be incorporated without doppler provided fundamental particle masses were increasing with time. I won't spend much time here on that theory, since I dislike it as much as the mainstream, though for somewhat different reasons. The mainstream dislikes it 1) because it is counterintuitive and counter to all previous data and understanding, 2) because it is not their theory. I dislike it because 1) it is illogical, 2) it is contrary to previous data, and 3) because it replaces one ridiculous theory with another one. Which is not progress. But my main reason for disliking it is that there exists a far simpler explanation which does not require changing masses. You already know about it, but we will re-acquaint ourselves with it in a moment.

The last reason I dislike the theory is that Arp and Narliker tie it to Mach. Since my respect for Mach is sub-zero, this doesn't help at all. The last thing Arp should have done if he wanted to convince me or those like me of anything would be to mention Mach's name. You will say that [I have written a paper on Mach](#), seeming to confirm Mach's Principle. Yes, but that was only by totally redefining the problem and the solution. In the recent history of science, Mach's theories—as *he* stated them—haven't been a help but a hindrance. We see that again here, where Mach's Principle mainly gave Arp a chance to go squishy on us. See for instance p. 228 of Arp's *Seeing Red*, where he uses Mach to argue that we need a **non-local** theory in classical dynamics. NO! That is the last thing we need, [as I show elsewhere](#). Non-locality has so far just been used as a fudge in quantum physics, and importing that fudge into cosmology would be the opposite of healthy.

So what is the obvious answer here? Gravitational redshifts. Or, I should say, what has up to now been called gravitational redshifts. I put it that way because I am about to show you that although the mainstream has the math roughly correct, it has assigned it to the wrong field, therefore giving it the wrong name. It is a *unified field* redshift, caused mostly by charge.

Yes, the mainstream admits the existence of gravitational redshifts, and even calculates numbers for objects like the Sun. However, the mainstream tells us this is wholly an outcome of Relativity, when it isn't. You will better understand where I am going with this if I remind you that I have done a similar thing in quantum mechanics. When particles experience mass increase in accelerators, the mainstream uses Relativity equations to calculate how much. Since these equations are roughly correct, the mainstream naturally assumes Relativity is correct. However, I have shown that like Newton's equations, Einstein's equations are also far too compressed. They both work pretty well as engineering equations, but when it comes time to explain the mechanics, they fail. They fail because in order to match data, they skip steps. This step-skipping not only hides basic mechanics, it has been the primary cause of the failure to unify. Unification has failed because our most famous equations are criminally opaque.

Let's back up one more step, so I can lead you in. I will lead you in on the same path I got here, though it will only take you a few moments, where it took me years. Perhaps the most important thing I have ever done is unlock Newton's famous gravitational equation

$$F = GMm/r^2$$

[I showed](#) it was a compressed equation, and though it seemed to be representing only one major field, it was actually representing two. Yes, charge is already in there as well, making that a unified field equation. To separate the two, all we have to do is write each mass as a density and a volume, giving density to the charge field and volume to the gravity field. G then becomes a size transform between the two fields.

Well, in the same way, Einstein's transforms are also compressed equations. [I have shown](#) that Einstein pushed them toward data, which is why they (sometimes) work. But by skipping steps and failing to assign variables and failing to show the mechanics at each point, he ended up creating decades of confusion. Particles in accelerator *aren't* gaining mass from point-of-view or speed only. Since Special Relativity is basically doppler applied to lengths and clocks, you see the analogy to our current problem with redshifts. Because Einstein's equations and theory were opaque (and buggy), later physicists didn't see how to apply them. And because the equations of mass increase were developed from velocity equations, particle physicists rushed to apply them to all fast-moving particles. And because

they mirrored the correct equations for mass increase in accelerators in many ways, they often worked (with some tweaking).

But the fact is, particles in accelerator aren't gaining mass from velocity or doppler. Such mass gains would be only apparent, due to point-of-view. **They wouldn't be local.** But mass gains in accelerator are completely real and local. The particles don't just *appear* to gain mass, they really do. They are gaining mass from the charge field, through which they are passing. The particles are spun up by the field, and recycle more charge during each dt.

Again, I trust you see the analogy to the current problem, where Arp and Narliker are proposing a mass increase in similar way. If I admit that fundamental particles can be spun up in accelerator, gaining mass, why am I against Narliker's theory? Because although there are similarities, as we are seeing, *this isn't Narliker's theory.* Go to Wikipedia, which is kind enough to have a gloss of Narliker's theory, although the site was created and is edited by people who disagree with it. This is your first clue, since if they felt threatened by this theory at all, they would suppress it like they suppress mine. Obviously, Narliker doesn't scare them at all, and I am showing you why. Here is the gloss in the first paragraph there:

He developed with [Sir Fred Hoyle](#) the [conformal gravity](#) theory, known as [Hoyle–Narlikar theory](#). It synthesizes [Albert Einstein's Theory of Relativity](#) and [Mach's Principle](#). It proposes that the inertial mass of a particle is a function of the masses of all other particles, multiplied by a coupling constant, which is a function of cosmic epoch.

You can see why the mainstream doesn't bother to suppress that, since it is little better than jactation. Like the theories of John Bell or Dewey Larson—which the mainstream also doesn't bother to suppress—its opacity is a guarantee of permanent failure. I sometimes think this is the point. It may be that we are witnessing more controlled opposition here, where the mainstream actually promotes theories like this, to prevent a stronger opposition from forming.

To see what I mean in more detail, you have to take the link to the Hoyle-Narliker theory there, where you will discover

The [gravitational constant G](#) is arbitrary and is determined by the mean density of matter in the universe. The theory was inspired by the [Wheeler–Feynman absorber theory](#) for [electrodynamics](#).

So you begin to see why I am so upset. As usual, we see blatant misdirection from the truth. I just told you what G is, and it has nothing to do with any of that. Like the mainstream, Hoyle and Narliker utterly ignore charge in cosmology, which makes it impossible to solve any of these problems. But that appears to be as the mainstream wants it, because—as we see at Wiki—they manufacture a controversy here. . . but give you the wrong one. We are told on that page that Hoyle-Narliker is incompatible with the known expansion, but that isn't its main problem, since that expansion is based on a misreading of data. The problem of Hoyle-Narliker is that it provides no real mechanism. As with Mach's Principle, the Wheeler-Feynman absorber theory is another pile of fudge, incorporating “invariance under time-reversal transformations”. Since there is no such thing as time reversal, this is just another stirring of your brain by frauds and charlatans.

Just look at this:

In the absorber theory, instead charged particles are considered as both emitters and absorbers, and the emission process is connected with the absorption process as follows: Both the retarded waves from emitter to absorber and the advanced waves from absorber to emitter are considered.

The sum of the two, however, results in *causal waves*, although the anti-causal (advanced) solutions are not discarded *a priori*.

That isn't physics folks, it is just equation and logic finessing, two of Feynman's specialties.

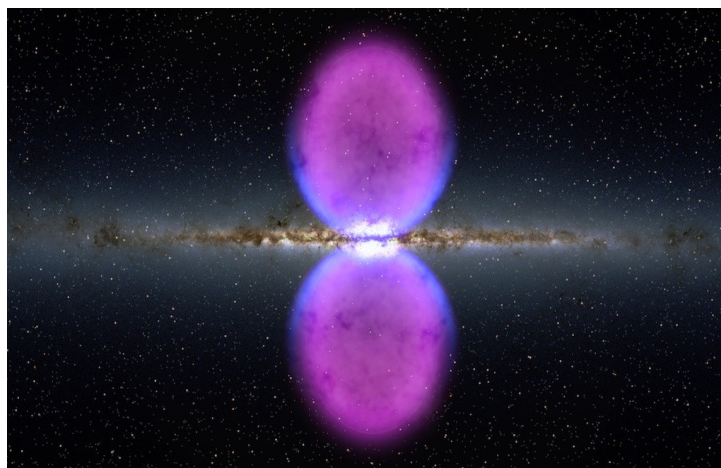
So, hopefully you can see why the instant I saw Arp moving in this direction I got queasy. Obviously, as honest people, we don't want to get anywhere near all that slop.

OK, let's move on. I need some fresh air. Some of my readers may be rushing ahead, thinking I am going to propose that quasars work like particle accelerators, spinning fundamental particles up into greater masses. At that point we could use the Hoyle-Narlikar math and jettison their greater theory. You can see that if we did that, we wouldn't need all the talk of epochs or of fundamental particles gaining mass universally as time passes. All particles wouldn't need to gain mass, only those at the edge of the quasar or other object showing funky redshifts.

But that isn't the mechanism, either. As I said, the answer is a sort of gravitational redshift, but one where we also incorporate the charge field. Just as mass increase in accelerator isn't caused by doppler or Relativity, gravitational redshifts aren't caused by gravity or Relativity. Instead, these redshifts are caused by light leaving massive objects, and being redshifted by the dense charge fields there.

They now admit that quasars are the galactic cores of very active galaxies. In that sense, the mainstream *has* moved toward Arp over the decades. They didn't use to admit that. They tell us quasars are giant black holes that have gone white beyond their event horizons, due to various poorly explained interactions. They aren't, for the simple reason that all historical black hole theory is garbage. We need to jettison it and start over. None of the black hole equations include the charge field, which is 95% of the unified field, so they are worthless. The mainstream should already know that, and I assume they do, since even without me they have a 95% hole in their equations due to dark matter. Have they rerun all the black hole math to include that 95% hole? No. They could hardly do that, could they, since they don't know what dark matter is. But since we now know it is charge, and since I have told everyone how to unify, we *can* rerun all the black hole equations. I have already [started to do that](#). But we really don't need to get into that here. We can solve without getting into black hole math at all.

All we have to do is admit that in any galactic core, quasar or not, we will have very high matter densities. This high matter density will likely allow for the creation of elements well above Iron, and probably well above Lawrencium. Who knows what elements may be created in such places? But the point is, dense matter like this also implies a very dense charge field. We know that galactic cores pull in charge and light, and the mainstream admits it in diagrams like this one:



That's from NASA Goddard. Those purple eggs are supposed to emitted gamma rays, but the conservation of energy states that what is emitted must first be absorbed, so the galaxy must be pulling in huge amounts of energy from the universal field. We would assume the form of that energy is photonic. Remember, 95% of everything is photonic, so all energy must ultimately come from photons. The galactic core uses those photons to build everything it does, including leptons, baryons, elements, and molecules. But since most light is dark, we don't see it. The mainstream assumes the space between galaxies is empty, but that is a bad assumption. The charge densities are probably lower there, but since the galaxies must be feeding on incoming charge, it has to be there. The galaxies are gigantic charge engines, but like all other charge engines, they cannot create charge. They can only recycle it and compress it.

So, given that, best guess is quasars occur when galaxies move through especially rich photon fields in the universe. As the galaxy feeds on that charge, the core lights up. Because the core is absorbing more energy, it can emit more energy, across the spectrum. The visible light is just what we see.

What about the redshift? The redshift must be caused by these extremely high matter and charge densities. As we have seen, photons are neither massless nor dimensionless. Therefore, they must be affected by this traffic. You will say we know what happens when light moves through matter, and it isn't a redshift. It is a sumover that makes the speed of light *seem* to drop. But once the light clears the matter, it it returns to c . True, but that is only what we know of light here, where charge densities are fairly low. It isn't the matter density I am talking about here, it is the charge density. Yes, matter densities will cause deflections internally, not redshifts. But very high charge densities would act differently than very high matter densities. In the first, photons are interacting with baryons, mainly. In the second, photons are interacting with other photons. Photon-photon interactions don't cause a drop in c , they normally cause spin damping or augmentation—which would be expected to cause red or blueshifts.

Why? Because the color of light is determined by its wavelength, and as I have shown that wavelength is actually a result of the spin radius of the photon. As I have proved [in many many papers](#), the wave nature of light is not a field wave, but a spin wave. This is what explains [superposition](#), entanglement, and every other mystery of light.

So when the charge density becomes high enough, we begin to get appreciable photon-photon interaction. And by that, yes, I mean photons are colliding. But because they are so small, even at high

densities they are very unlikely to collide head to head. They are much more likely to collide edge to edge, which is why we see spin changes, not velocity changes.

This means that even when light leaves the Sun, we are seeing this mechanism at work. This is what the mainstream has called a gravitational redshift, but it isn't gravitational. It is caused by dense matter, but it isn't a result of gravity. It is a result of photon-photon spin interaction. In that sense it is just another [feature of magnetic reconnection](#). Since the charge field IS light, we basically have the charge field affecting itself. We have photons recycled and emitted by the nucleus trying to navigate a dense ambient field of other photons.

If that is the mechanism of this redshift, shouldn't we see more energetic photons affected differently than less energetic ones? Not necessarily. In my theory, more energetic photons are physically larger, so yes, they should suffer more collisions with other photons. But because they are physically larger, they are affected *less* by each collision. The larger spin has more energy, so—given an equal collision—it changes less as a fraction of its whole. These two factors offset, as you see, making the difference negligible.

So . . . was Arp controlled opposition? In [my paper on CHSH Bell Tests](#), I proposed the same thing for John Bell, who I called the Chick Gandil of physics. In either case, I don't really know. I am not enough of an insider to know the real score on these questions, and what is more I don't really give a damn. I refuse to be misdirected into these squabbles, being far more interested in the physics. I would have to read a lot more on Arp, which I am not really interested in doing. But given this diversion into Hoyle-Narlikar theory and Wheeler-Feynman theory, it is entirely possible Arp was playing a part, throwing the game to Martin Rees and others while creating more confusion on his own.

In support of that, it is informative to look at the bio of Rees, who is a Baron. He has also been knighted, so he is Sir Martin Rees.



The guy has great hair, and there is no use denying that, but that is not why I posted a picture of him. He also has a very striking nose, doesn't he, of astonishing length. It reminds us of a lot of people we have looked at on my other site. This isn't beside the point, as we are about to see. Although a Baron, the peerage sites have no information on him. No parents are listed. None at Wikipedia, either, which is a red flag. Also nothing at Britannica. He has a page at Geni.com, but it is likewise empty. Nothing at Ancestry, Geneanet, Wikitree, or any other site. Kind of curious for a man of his stature, one who is

not only a knight and a Baron, but who was president of the Royal Society and is still a board member of the IAS in Princeton. Another ghost. But if we study the Rees family in the peerage, we find they were formerly Baronets, related to the Viscounts Montagu, the Barons Dormer, the Tufton Earls, the Cecil Earls, the Neville Earls, the Fitzgerald Earls, the Grey Marquesses, the Beauchamp Earls, the Percy Dukes, the Berkeley Barons, the De Vere Earls, and the Somerset Earls. Through the Nevilles, they were related to Henry VIII. Catherine Parr, last wife of Henry, had formerly been the wife of Neville. Through the Montagus the Rees are related to the **Stanleys**, Earls of Derby. Which may be where Rees got that nose. And if we go back even further, we find [Rees descends directly from John of Gaunt](#), through the same Nevilles.



I guess you see why now why I paused on that nose. Compare Rees to Montagu, Gaunt, Stanley, Lennon, and Russell. Lennon was also a Stanley. The Russells are also in the peerage, related to these families.

Same for Rees' wife, Caroline Humphrey. She is also a Reeves and a Robinson. Her grandmother was Amber Reeves, the famous Fabian feminist. For Fabian you may substitute “spook”. She founded the Cambridge Fabian Society with Ben Keeling. The Keelings are well-scrubbed online, but they are also from the peerage, related to the Cadman Barons, the Payne Baronets, the Townshends, the Gibsons, and

the Stewarts.

This means Rees is probably a variation of Rice/Rhys/Reiss, originating in Wales.

That was Martin Rees; what about Halton Arp? Could he be related to Jean Arp, modern “artist” phony and founder of Dada in Zurich in 1916?



We are told Jean Arp's mother was French, but her maiden name was Koeberle, making that both false and misdirection. Both Arp's parents were German, and I assume they were Jewish. Dada was a Jewish construction from the beginning.

In his *New York Times* obituary, [we are told](#) that Halton Arp **was the son of an artist**, August Arp. Hmm. Halton grew up in art colonies and in Greenwich Village. He went to prep school at Tabor Academy, a spook feeder for the US Naval Academy. Before going to Harvard, Halton Arp **had been in the Navy**. He was a top fencer, competing in the World Championships in 1965—when he was 38. Again, that may be read as a clue, since fencing, like polo, is a sport of nobility. Rees probably fences as well. Arp later lived in Munich and worked at the Max Planck Institute, which is curious. Like Rees, Arp has no ancestry listed anywhere. Here he is with two of his grandsons.



It would be nice to know their names and the names of their parents, wouldn't it? I see clues rising to the surface here, but then offering us no way to follow them.

Arp's entire obituary is strange, since it seems odd for someone supposedly marginalized by the mainstream, refused telescope time, and refused major publishers, to be given a full page spread with photos in the *New York Times* upon his death. Stranger still is that he is sold there as a swashbuckling maverick and romantic. Yes, the media does use his obit to sell mainstream theory, but it is still surprisingly glowing. Also never explained is why, when he took early retirement in the 1980s, the Max Planck Institute was glad to have him. Why would the apparent goat of American astronomy be welcomed at Max Planck with open arms? Max Planck is one of the leading theoretical centers for astrophysics in the world, and they were certainly not promoting Steady State in the 1980s. In fact, it is and always has been one of the hotbeds of Big Bang, Black Hole, and other mainstream theory. The Nobel in physics in 1954 had gone to Bothe (of Max Planck) and Born for their work on wave-particle duality (which [I have shown](#) is another huge fudge). To understand why this is important here, study the page of Walther Bothe at Wikipedia, where you will find he was neck deep in the German military and the Atomic Energy Commission. So everything I am about to remind you in a couple of paragraphs about the US also applies to Germany. In short, physics was completely controlled by the military.

A search on August Arp does not pull up Halton's father (as far as we know), but it does pull up an [August Arp](#) of Germany who died in 1973. He had sons who were born in 1907 (Walter) and 1922 (Herbert). Halton was born in 1927. One of August's brothers married a **Heitmann**. There is a second August Arp in this family who died in 1992. A third died in 1989. This third one may be our man, since [he was born in Manhattan](#) and is buried in Athens, New York. Halton was born in New York City. If this is Halton's father, then his grandmother is Bertha **Hageman**. No Halton is listed as a son, but he could have been scrubbed, as most famous people are. The brother of this August Arp married a **Gumaer**.

Further research allows us to find a sample of Halton's father's artwork, I assume. It is a Hallmark Christmas card from 1923, [kept by the Smithsonian](#). It is tagged August Arp and signed A. C. Arp, and I assume the C. stands for Christian. Halton's middle name is Christian. This would link us to the August Arp above who died in 1973, since his father was named Christian.

Halton Arp graduated from Harvard and Caltech and got his start as a Fellow at the Carnegie Institution for Science in 1953, which is two or three more red flags. You may remember that Vannevar Bush was head of Carnegie during the war, and he remained its head until 1955.

I wonder if Vannevar Bush also had a long face and nose? You tell me:



Bush was also head of NACA, the predecessor of NASA. Also head of the National Defense Research Committee (NDRC) and the Office of Scientific Research and Development (OSRD). Also a head of

the Manhattan Project and perhaps its overseer. Bush was also director of Merck pharmaceuticals until 1962. Given all that, it is curious to find Wikipedia admitting that when he toured the Western Front in 1944, no war senior officers would meet with him. What? Wouldn't you like to know more about that?

He was able to meet with [Samuel Goudsmit](#) and other members of the [Alsos Mission](#), who assured him that there was no danger from the German [atomic bomb] project.

Again, what? That isn't what we are told on the Manhattan Project pages, is it? I thought we were in a race to create the bomb with Germany. But Bush knew that wasn't the case.

Bush was also the creator of the National Science Foundation. Here is what his Wiki page says about the first attempt to fund it through Congress in 1945 (the Kilgore Bill):

In July 1945, the Kilgore bill was introduced in Congress, proposing the appointment and removal of a single science administrator by the president, with emphasis on applied research, and a patent clause favoring a government monopoly. In contrast, the competing Magnuson bill was similar to Bush's proposal to vest control in a panel of top scientists and civilian administrators with the executive director appointed by them.

In either case, a clearly fascist enterprise, which is why we have what we now have. Those 1945 bills were vetoed by Truman, supposedly because the foundation wasn't responsible to either Congress or the President, but actually because Bush and Truman had something better up their sleeves. The military stepped in, creating the Office of Naval Research to do the same thing the NSF was going to do.

Bush helped create the Joint Research and Development Board (JRDB) of the Army and Navy, of which he was chairman. With passage of the [National Security Act](#) on July 26, 1947, the JRDB became the Research and Development Board (RDB). Its role was to promote research through the military until a bill creating the National Science Foundation finally became law.^[96] By 1953, the [Department of Defense](#) was spending \$1.6 billion a year on research; physicists were spending 70 percent of their time on defense related research, and 98 percent of the money spent on physics came from either the Department of Defense or the [Atomic Energy Commission](#) (AEC), which took over from the Manhattan Project on January 1, 1947.

That explains a lot, doesn't it? And the same guy that was in charge of all that was also in control of the Carnegie Institution for Science until 1955, where Halton Arp was also encamped. Arp had also been in the Navy, remember?

So what does this mean for Halton Arp? I said I wasn't going to get into this, but I have been drawn in, haven't I? If 98% of the funding for physics came from the DOD, I assume that includes astronomy and Palomar observatory (where Arp worked for many years). It is difficult to see what use quasars and black holes were and are to the DOD, but we have seen much evidence in previous papers that use was misdirecting the public into manufactured stories and controversies. We see it again above, where both Rees and Arp seem to be shunting us off into very bad ideas. It seems that neither side wishes you to know what is actually happening here or anywhere else, and I can only suppose it is because if you understood anything about physics or astronomy, you might be able to understand a lot of other things. The truth about everything has become a military secret, and that secret is kept by maintaining your ignorance on *all* topics and subtopics. Welcome to the brave new world order, where mass idiocy has become a prerequisite of governance, and where science is now anti-science.

You can see that my opinion of Arp changed while I was writing this. I research and write at the same time, so you can see the development of my thesis evolve in just ten pages. I could go back and rewrite the first part to match the later tone, but I don't think I will. I think it is useful for you to see how I got where I did, and the speed at which I got there. These things aren't that hard to unravel, if you look closely. It isn't enough to just question authority anymore. You also have to question those who are questioning authority.