Episode Book

EPISODE #6080

Breastfeeding the Way Humans Actually Did It

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SYNOPSIS

Western mothers are told breastfeeding should be "natural" — yet many find it agonizing. What if the problem isn't them, but the way modern society has reorganized birth, work, and motherhood? This episode digs into the anthropology of infant feeding across hunter-gatherer and traditional societies: the !Kung San nursing every 13 minutes, Aka infants self-latching 70% of the time, average weaning ages near 29 months, and allomaternal nursing — other women feeding your baby — present in 93% of surveyed cultures. The data reframes what "on demand" actually means, why supply anxiety may be a modern invention, and how ecology shapes whether a village helps feed a child. A grounded, evidence-rich look at what the human feeding pattern really looks like — and what it suggests about the struggles mothers face today.

TRANSCRIPT



Corn

Hannah sent us something this week, and it's a topic that gets people going like almost nothing else.



Herman

Breastfeeding.



Corn

Breastfeeding. She's noticed how much stress and anxiety it generates for mothers — sometimes, she says, for Daniel too — and she wants to know what it actually looks like outside the modern West. Specifically, in hunter-gatherer and more traditional societies.



Herman

And behind that is a real question, not just curiosity. If Western mothers overwhelmingly struggle with something that's supposed to be the most natural thing in the world, is the problem with them, or with the way we've built the whole thing?



Corn

She puts it as: how much of the difficulty is biological, and how much is created by how Western society organizes birth, work, childcare, and motherhood. That's the spine of the whole episode.



Herman

Let's start with the most basic version of that. How often do babies actually nurse when nobody is telling anyone when to feed?



Corn

Because that number is going to make everything else look strange.



Herman

The benchmark study is Konner and Worthman's work on the !Kung San in the Kalahari, published in Science in 1980. They measured the interval between nursing bouts and got a mean of 13.19 minutes, with a standard error of about 1.28 minutes.



Corn

Thirteen minutes.



Herman

That's the gap *between* feeds. Not the length of a feed — the gap. So these mothers are nursing many times per hour, all day. This isn't every three hours on a schedule; it's near-continuous access to the breast.



Corn

What was the actual finding they cared about?



Herman

Birth spacing. The critical variable wasn't total nursing time — it was the interval between bouts. Low estradiol and progesterone correlated with a short interbout interval. That's the key. It's a timing-dependent, prolactin-mediated effect of breast stimulation. Frequent, brief stimulation suppresses ovarian function, which is how you get the long birth intervals that hunter-gatherer societies are known for.



Corn

So the mechanism is basically: nurse often enough, in small enough bursts, and your body doesn't prioritize getting pregnant again.



Herman

Right. And then Fouts, Hewlett and Lamb looked at the Aka and the Ngandu in Central Africa in 2012 and found nursing more than three times an hour. Which is a lot, but still less than the !Kung — this is not one number, it's a range.



Corn

What does "on demand" actually mean in these societies?



Herman

That's the part that reframes all of it for me. Westerners hear "on demand" and picture the mother deciding to offer the breast when the baby seems to want it. That's still mother-directed. Among the Aka, at three to four months, breastfeeding is *infant-initiated* about seventy percent of the time.



Corn

Seventy percent. That's not her offering. That's the baby taking.



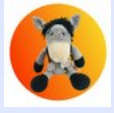
Herman

The infant takes the breast themselves as they sit on the mother's lap or side. The mother isn't deciding anything. She's carrying the baby, and the baby helps itself.



Corn

So what does "on demand" mean when crying can signal a hundred different things?



Herman

The crying question is the one Western nursing advice obsesses over, and in these societies it mostly doesn't come up, because the baby doesn't have to cry to get fed. It just reaches. Nurit Bird-David's work with the Nayaka pushes this even further.



Corn

Go on.



Herman

She wrote that mothers didn't "feed" infants — they gave them "free access to nursing while being carried." And babies "could actively suckle their mother's breast because of their constant bodily closeness to her." The Nayaka portray babies as feeding *themselves* using the mother's breast. Not being fed. Feeding themselves.



Corn

That's a different model of what a baby is.



Herman

That's a different anthropology. The infant isn't a passive recipient waiting on the mother's judgment. It's a small agent with access to a resource.



Corn

Okay, so they're nursing constantly and babies mostly initiate it. When does it stop?



Herman

This is Daniel Sellen's big paper. He looked at 113 nonindustrial populations — data published between 1873 and 1998. The average age of ending breastfeeding was 29 months, with a standard deviation of ten months. Median 29.5, mode 30. Children were breastfed beyond two years in about sixty percent of populations.



Corn

Twenty-nine months as an average — over two and a half years.



Herman

And the variation around it is enormous. The Arapaho weaned at four years, and as old as eight in some accounts. Buka, four to five years. Senoi up to four or five. Jivaro at two to three, or four to seven. The !Kung at three to four. But the Badaga weaned at one year, Tibetans at ten to twelve months, the Yurok at one year maximum.



Corn

So "traditional" doesn't mean one thing either.



Herman

Not remotely. Katherine Dettwyler took a completely different angle. Instead of surveying populations, she asked: if we compare human life history variables to our closest primate relatives, what would the *natural* weaning age be? Her answer: between two and a half and seven years.



Corn

That's a wide window.



Herman

She gave specific predictions. First permanent molars come in around five and a half to six years — that tracks with weaning. Six times gestation length, which is what chimps and gorillas do, gives you about four and a half years. Quadrupling of birth weight lands at two and a half to three and a half years. One third of adult weight puts you at five to seven.



Corn

So the cross-cultural average of twenty-nine months actually sits at the low end of that estimate.



Herman

It does. Dettwyler has a great line — the often-cited "worldwide average weaning age of 4.2 years" is "neither accurate nor meaningful." She went back and surveyed 64 traditional studies from before 1940 and got a median breastfeeding duration of about 2.8 years. And she notes that in societies where children nurse as long as they want, they usually self-wean between three and four years, "with no arguments or emotional trauma."



Corn

Which is not the way weaning tends to go in a house where someone reads a parenting book.



Herman

No, it definitely isn't.



Corn

Hang on. Before we go further, what's the caveat on all this weaning data?



Herman

Sellen's own caveat. The ethnographic weaning data are "few and generally of extremely poor quality." Mostly collected by male ethnographers in the mid-twentieth century, with no within-population distributions. So the numbers are indicative, not precise. If you see someone quote a weaning age with four significant figures, they're being clever with bad data.



Corn

Treat them as shape, not measurement.



Herman

The shape is: much later than we'd assume, and much more variable than any single number suggests.



Corn

Here's a question I want to get at before we move on. If nursing is infant-initiated in these societies, and the breast is just always there — that doesn't sound like a system that produces a lot of anxiety about supply.



Herman

That's a thread. Hold it. We'll need it in the last third.



Corn

I'm holding it.



Herman

But there's another dimension here. Breastfeeding isn't just a dyad. It happens in a room full of people.



Corn

So what happens when other women are around?



Herman

Enter allomaternal nursing. Hewlett and Winn did a survey of 258 cultures using the eHRAF database. Allomaternal nursing — women nursing infants that aren't theirs — was present in 97 of the 104 cultures that had usable data. That's ninety-three percent.



Corn

Ninety-three percent. So it's universal.



Herman

And here's the tension. It was *normative* — meaning routine, expected, the default — in only six cultures. Five point eight percent.



Corn

So almost everyone does it sometimes, and almost nobody does it as the default.



Herman

That's the whole shape of the finding. It's not a universal practice, and it's not rare either. It's a backup.



Corn

Among the Aka and Efé, how common is it?



Herman

Common in early infancy specifically. Sixty percent of Aka three-to-four-month-olds received allomaternal nursing. Among the Efé it was seventy-one to seventy-eight percent. When it happens, infants spend about fifteen to twenty-five percent of their total breastfeeding time with an allomother — sometimes up to half.



Corn

And then it declines.



Herman

Sharply. Only fifteen percent of Aka nine-to-ten-month-olds received it, and it was rare or gone by twelve months. This is an early-infancy phenomenon, not a general practice.



Corn

Who are the allomothers?



Herman

Overwhelmingly kin. The allomother was genetically related to the infant about ninety percent of the time. Sixty-two percent of Aka allomothers were postmenopausal grandmothers — both maternal and paternal. Aka mothers reported that forty-four percent of allomothers were grandmothers, and forty-four percent were aunts.



Corn

So the grandmother shows up and takes a shift.



Herman

Eats something, hands the baby over. Literally. That's the mechanism.



Corn

Is this universal among foragers?



Herman

No. This is where it gets interesting. Normative allomaternal nursing shows up among the Aka, Efé, Bofi, Agta, Ongee, and Chabu. Six of those seven groups live in tropical forests.



Corn

And the ones where it's absent?



Herman

The !Kung, the Hadza, the Nayaka, the Paliyan. Rare among the Martu. Look at where those groups live — arid or savanna environments. Melvin Konner on the !Kung: "I never saw non-maternal breast feeding except once or twice as a sort of very brief joke."



Corn

So it's not 'traditionalness' that drives it. It's ecology.



Herman

That's the hypothesis, yes. Tropical forest, high pathogen load, dense kin networks — the conditions where someone else stepping in is both normal and useful. In the Kalahari, the same practice just doesn't earn its keep.



Corn

What about the Ongee? You mentioned them.



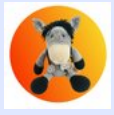
Herman

Beautiful detail from that ethnography. The Ongee word for woman is "milky breast." And if a mother leaves camp and another woman nurses her infant, the mother says when she comes back: "You have been a good milky breast."



Corn

That's a complement.



Herman

And it goes the other way. Not sharing a child is seen as a bad quality. The line is: "Where does she think the child came from? It is for all of us."



Corn

"It is for all of us."



Herman

That's the worldview in one sentence. The child belongs to more than one woman.



Corn

Did wet nursing — paid nursing, professional nursing — show up in the data?



Herman

That's a different tradition. Wet nursing as a paid, often stratified institution was common in Eurasian stratified cultures — Hunza, Korean, Pashtun, Malay — and in African kingdoms like the Ashanti and the Buganda. There's also "milk kinship," where a nursed child joins the allomother's kin network and can't later marry into it. That appeared in 19 of 104 cultures, about eighteen percent.



Corn

So nursing creates a legal relationship.



Herman

A kinship relationship. You can't marry the woman whose milk you drank.



Corn

What were the contexts where allomaternal nursing showed up?



Herman

The eHRAF breakdown. Mother can't nurse, or has insufficient milk: about thirty-four percent of contexts. Mother's death: about twenty-nine percent. Milk kinship: eighteen. Lower-class women nursing elite infants: eighteen. Mother ill: about ten percent. Colostrum taboos: about ten percent. Mothers working away: about eight percent. And it was explicitly forbidden in only seven cultures — six point seven percent.



Corn

Thirty-four percent for insufficient milk. That's the first time today that number shows up, and it's not going to be the last.



Herman

No. Hold that too.



Corn

But I assume not everyone is permissive.



Herman

The Ngandu are the counterexample, and they matter. They're farmers in Central Africa, neighbors of the Aka. They believe another woman's milk is *poisonous* — they have a word for it, ekila. Only one of twenty Ngandu infants received allomaternal nursing.



Corn

The neighbors, same region, same forest, opposite practice.



Herman

Which is why you can't romanticize "traditional societies." They're not uniformly one thing. Some share nursing, some think it will kill the baby.



Corn

Okay. Pregnancy. What happens when the mother is pregnant again and still nursing?



Herman

Dettwyler's line is blunt: "It is not necessary to cease breastfeeding for another pregnancy." Some women find their fertility doesn't return until the baby is fully weaned, others conceive while still nursing. And in many societies, the subsequent pregnancy itself precipitates weaning — there's a widespread belief that pregnancy changes the milk, so the older child gets moved off.



Corn

Tandem nursing — nursing two kids at once.



Herman

Happens. Not the norm, but it happens.



Corn

And the birth spacing thing — that loops us back to the very first figure. The thirteen-minute gap.



Herman

It does. The !Kung pattern of frequent brief bouts with short interbout intervals appears to suppress maternal gonadal function. That's the mechanism producing the long birth intervals. And allomaternal nursing is part of how that works — if someone else can nurse the baby occasionally, the mother's own endocrine system doesn't have to do all the work.



Corn

What's the honest state of the evidence on allomaternal nursing?



Herman

Thin. Hewlett and Winn state it explicitly: "As far as we know, the Aka and Efé are the only cultures with quantitative data on allomaternal nursing." Every other forager claim rests on ethnographer interviews or personal communication.



Corn

So this whole picture is built on two groups and a survey.



Herman

The survey is 258 cultures, so it's better than that. But the *quantitative* day-to-day data is Aka and Efé. The rest is qualitative.



Corn

Fine. So now the payoff question. Why is it so hard now?



Herman

This is the bit that answers Hannah's question. There's a phrase from the 1981 literature — Greiner, Van Esterik and Latham named it the "insufficient milk syndrome." Their argument was that perceived insufficiency is largely *iatrogenic* and cultural, not biological. And they were explicitly pushing back against the formula industry, which claimed breastfeeding "no longer worked well" unless mothers stayed in "constant contact" with their babies.



Corn

Wait, the formula industry was saying that?



Herman

Yes, and in a way that got them off the hook. The industry position was: we're not the problem, mothers today just can't do it. Greiner and colleagues said that's backwards. The problem isn't biology. It's what we've done to the conditions.



Corn

That is a very good move.



Herman

And there's a clinical review from the 1980s that's devastating. "Not enough milk" is the most common cause of early weaning "however, it is almost always a non-problem, which is partly iatrogenic, and partly due to ignorance of normal breast-feeding in our society."



Corn

So the most common reason women stop is something that, in most cases, isn't happening.



Herman

That's the strong version of the claim. Perceived insufficient milk supply is still enormously important — one cohort found twenty-seven percent of exclusively breastfeeding mothers reported a milk-supply concern at day seven. Twenty-seven percent. And Huang's 2022 meta-analysis estimated the pooled rates across many studies. So the perception is very common even though the true biological insufficiency is comparatively rare.



Corn

So what happened in the societies where there was no formula?



Herman

Were breastfeeding problems less common? Probably not, honestly. Meanwhile, thirty-four percent of the eHRAF contexts for allomaternal nursing were literally "mother can't nurse or has insufficient milk" — so this existed before formula. The likely answer is that the problems were similar in frequency, but the *cultural scaffolding* was different. If you couldn't nurse, there was another lactating woman in the camp. If you were sick, the grandmother took the shift. If your supply dipped, someone else's supply absorbed the difference.



Corn

So the biology is roughly constant. The support structure moves.



Herman

And ours has been moved away. Dettwyler has a prescription — she lists what actually helps. "Better prenatal care, more humane childbirth experiences, skin-to-skin immediately after birth with no separation, well-trained lactation consultants... and sufficient maternity leave."



Corn

And then the feeding pattern.



Herman

Feeding "several times an hour in the first weeks and months, around the clock."



Corn

Several times an hour. Which is roughly the !Kung number, arrived at from first principles.



Herman

That's not a coincidence. It's a convergent finding. If you want to produce enough milk for a human infant, you roughly have to nurse the way humans have always nursed. That's not a preference; it's a physiological baseline.



Corn

But that's impossible for most women with a job and a nursery.



Herman

Which is exactly why the difficulty is iatrogenic. The biology didn't change. The conditions did. Separation after birth, scheduled feeds, lack of maternity leave, lack of lactation support, medicalization of infant feeding — all of that undermines the physiology.



Corn

And it's not as if nobody in the traditional record struggled.



Herman

They did. Maternal death shows up as a context for allomaternal nursing in about twenty-nine percent of cultures — meaning the mother died and someone else nursed the baby. Illness, colostrum taboos, insufficient supply — all present. The difference is that they had built-in social solutions and we have built-in social obstacles.



Corn

"Traditional societies had problems too. They just had villages."



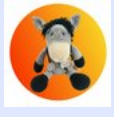
Herman

That's the entire business.



Corn

The piece that keeps landing for me is that breastfeeding is a biocultural system, not a biological instinct.



Herman

Say more about that.



Corn

It's not something you're supposed to do alone in a chair. It's something that requires a support structure — other bodies, other hands, someone who can take the baby when you eat or sleep. And when you remove that structure, you get modern breastfeeding: one woman, one baby, one pump, and a spreadsheet of ounces.



Herman

Right, and the breastfeeding books get written about the woman and the baby. The thing that's actually missing is the village.



Corn

Which is the same thing that came up in the sleep anthropology episodes — the Western assumption that parenting happens in a dyad, when the cross-cultural record shows it happening in a crowd.



Herman

Dettwyler has a line I want to read into the record. She says: "I think any breastfeeding is better than no breastfeeding... It's not a competition to see who can feed the longest."



Corn

Say the second half again.



Herman

"It's not a competition to see who can feed the longest."



Corn

Better.



Herman

She also has a great observation about why the lot gets sexualized here. "It is only in a few cultures around the world — regrettably mostly Western ones — that breasts are viewed as sexual objects."



Corn

Regrettably, she says.



Herman

Her word.



Corn

I want to be honest about the limits of what we know here. Where — are there claims in the literature that are just extrapolation?



Herman

Yes, two big ones. First, no studies have examined breast milk composition beyond two years postpartum. So all those claims about continued benefit past age two are extrapolation, not evidence. Dettwyler said the appropriate studies have not been done — that's still true today, as far as I know.



Corn

So if someone tells you that nursing a three-year-old has measurable benefit, they're guessing.



Herman

They're extrapolating from data that doesn't exist. Second, the allomaternal nursing data is Aka and Efé only, quantitatively.



Corn

Fair. So let me say what I think the argument actually is, because I want to get it right.



Herman

Go.



Corn

Daniel's question — how much is biological, how much is created — the answer is that the biology is roughly constant, and the difficulty is mostly a *mismatch* between that biology and the way modern life is arranged. It's not that women today are worse at this. It's that we've removed the conditions under which this was a livable practice, and then we've told women it's their personal responsibility.



Herman

That's exactly right.



Corn

And nobody catches the irony that we're demanding something paradoxically individualist about the most collectively practiced thing in human history.



Herman

Say that on a bumper sticker and you'd sell a million.

L

Larry

Have you been told your milk supply isn't what it should be? You're not alone. Millions of mothers every year are told the same thing by the same tired voices. That's why I want to introduce you to Lactaflow Max — the proprietary bio-identical nursing formula engineered to restore what modern life has taken from you. Just one capsule a day, and within forty-eight hours you'll feel the difference. Most users report supply restored to eleven times baseline within the first week. Some report more. Lactaflow Max is not for everyone. Side effects may include: sudden onset of liquid gold, spontaneous lactation in

L

Larry (continued)

the shower, lactation during meetings, lactation while sleeping, lactation while laughing, lactation while thinking about lactation, vivid dreams of being a nineteenth-century wet nurse, temporary dislike of your own mother, permanent dislike of your mother-in-law, an inability to stop humming, mild time dilation, an urge to organize your pantry alphabetically at four in the morning, and in rare cases, a nagging certainty that you were meant to be something else entirely. Lactaflow Max. Ask your doctor. Ask your neighbor. Ask anyone.



Corn

How much?



Herman

Corn.



Corn

I'm just asking.



Herman

You don't need it. You're a sloth.



Corn

I could still feel restored.



Herman

You are restored. You've been restored since 1998.



Corn

Fine. Forget I asked.



Herman

Where were we?



Corn

You were about to say something about the deeper implication.



Herman

I was going to say that Dettwyler's prescription is not really about mothers.



Corn

Say more.



Herman

Skin-to-skin with no separation is a hospital policy. Maternity leave is a labor law. Lactation consultants are a health system investment. Feeding several times an hour, around the clock, is compatible with a life where someone else is holding the baby while you eat. Every one of those is a structural variable, not a maternal one.



Corn

So the fix isn't a different kind of mother. It's a different arrangement.



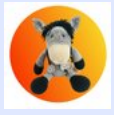
Herman

That's the thesis in one line. Kung were doing than to what we do.



Corn

That's uncomfortable.



Herman

It should be. Hannah's question is basically: is the difficulty real? And the answer is: yes, the difficulty is real, and no, it's not your fault.



Hilbert

I had one. A Medela, the yellow one — the Pump In Style, the old version, before they changed the motor.



Corn

Before the what now?



Hilbert

The motor. First one they made was a piston, sounded like a lawn mower. They swapped it in '81. I had the '81. Bought it used for ninety dollars.



Corn

Ninety dollars.



Hilbert

Ninety-five. Ninety-five exactly — that's the rule me and my brother-in-law settled on: you don't count the tax, and you don't count the gas. Ninety-five.



Corn

Okay.



Hilbert

I wasn't using it myself. I bought it to modify it. Ran it off a bicycle generator I'd rigged in the back room. Twenty-eight volts, off a dynamo I pulled off a Schwinn. You pedaled, it pumped. I wrote the club about it. The Owls — the Uxbridge Mechanical Society, before the split. Eldred Fisk — that's who I wrote to. I sent him a letter, six pages, single-spaced, with a diagram. I said: you could make the pump work off the body of the mother herself. Walk around, it pumps. Meet the baby where it is.



Corn

And what did Eldred say?



Hilbert

Nothing. He never wrote back. But at the next meeting he proposed a motion that all experimental apparatus be "reviewed by the tools subcommittee prior to demonstration." That was aimed at me. It passed, twelve to nine. I resigned from the tools subcommittee, and then they wouldn't let me rejoin, and I'm still not on it. Eighteen years.



Corn

Wait. Are you saying you tried to get the society to — what, replace the pump with the actual human body?



Hilbert

I'm saying I tried to make the machine unnecessary. There's a difference.



Corn

There is a difference.



Hilbert

Nobody cared. Eldred cared about the subcommittee. I never did get the pump to run sweet. The bell housing on those old Medelas was forgiving, but the piston assembly, the way the rod met the crank — you couldn't get a smooth enough gear ratio off a bicycle. It chattered. I sold it in 1994 to a man in Uxbridge who said he was going to make a go of it, and I never heard from him again.



Herman

So you got out of the pump game entirely.



Hilbert

I got out. I shouldn't have. It was a good pump.



Corn

Hilbert, did you ever in all this learn anything?



Hilbert

I learned the pressure. Twelve to fifteen inches of mercury. That's the whole number. That's the range that matters, and you can't trust anything a manufacturer tells you that doesn't give you the range. Everything else is marketing.



Corn

Huh. Okay.



Hilbert

Twelve to fifteen.



Herman

So the amount of suction is the thing that actually matters, not all the framing around it.



Hilbert

It's the whole pump.



Herman

Which is — okay, that's a nice image for the conversation we were having.



Corn

Let me sit with that one for a second. Because I think we've arrived at something.



Herman

Have we?



Corn

Hannah wanted to know whether the difficulty is biological or constructed. And the answer is that the biology is constant and the *mechanics* have been made to fit an infrastructure that doesn't match the biology. The pump has pressure. The pumping has a mother alone in a room, attached to a machine, doing the thing without the people.



Herman

That's the shape of it.



Corn

The cross-cultural record isn't telling us that modern women are doing it wrong. It's telling us that we've collapsed a biocultural system into a component, and then we're surprised that the component doesn't work as well.



Herman

One thing I keep noticing: traditional societies also had insufficient milk. That's the third of the eHRAF contexts.



Corn

So it's not that they were better at this. It's that the failure was absorbed by the village, and ours is absorbed by the mother.



Herman

And the mothers get the guilt.



Corn

They get the guilt.



Herman

If you take one thing from this — and it's not advice, it's a reframe — it's that the conditions for producing milk are the conditions humans have always needed: another body nearby, no separation, no schedule, and someone else willing to hold the baby. The biology is fine. The architecture is the problem.



Corn

And the architecture is fixable. That's the hopeful version.



Herman

Maternity leave, postpartum support, lactation consultants, humane birth practices. Structural things. Not a different kind of mother.



Corn

One open question that'll need to sit: nobody has studied breast milk composition past two years, so the claims about continued benefit are extrapolation, and we should say so honestly.



Herman

Nobody has studied allomaternal nursing quantitatively outside the Aka and Efé either. That's another door still open.



Corn

Two doors. On the way out — producer Hilbert Flumingtop, who has been sitting at the desk the whole time. If you enjoyed this episode, subscribe and leave a review. It helps other people find the show.



Herman

If you enjoyed this one, try episode twenty-two fifty-eight, How Maya, Inuit, and Hadza Parents Sleep at Night; episode twenty-two fifty-seven, How Maya, Inuit, and Hadza Cultures Engineer Sleep; and episode eleven fifty-nine, Raising Humans. This has been My Weird Prompts.



Corn

My weird prompts dot com. We'll be back soon.



Herman

See you tomorrow.

SOURCES

What the research for this episode read before the script was written. Primary sources first.

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