Don’t Sugar Coat It

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Don't Sugar Coat It.[1]

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Sweethearts and bitter pills

> At the end of a long, or particularly entangled love affair, there are often conversations that contain a certain sort of language, a feeling-talk, full of attempts at explanations, authenticity and honesty. It is a time for mapping and remapping neglected affects, putting aside desires, of trying to put into words what is not always articulated easily, in a context in which wrong words can harm. As if at a hospital appointment, fearful but resolute, we speak to our lovers as if we sense, but do not know, the worst. 'Please doc,' we say, 'just give me the facts, don't sugar coat it'. And we listen hard, trying to hear the diagnosis: that there is still a chance, or that it is over, there is no more sweetness to be expected. The ground shifts beneath us, inviting reinterpretations and a need for remapping assumptions and commitments that had formed the backdrops of our lives, and so we, or our friends, trying to make sense of what was once so sure, might describe the problem of acceptance as a 'bitter pill to swallow'. The medical inflections of this talk of truth and its presence on the tongue, often described in terms sweetness or its opposite point to a metaphorical entanglement of taste, truth and healing, and with them, questions of trust and honesty. These questions not only reside in hospitals and clinics, but throughout our relationships with those for whom we care.

Truth, trust and healing

Truth is a perennial problem for the physician,[2] in a number of ways it complicates diagnosis; the need to read the signs of an inscrutable, still breathing body as indices of disorder with known treatments. These signs not only tell its present state, but forecast

[1] With thanks to Prof dr. Michael Punt for his careful yet repeated readings and thoughtful comments on the draft, to Ellie Doney for many pointers and starting conversations, and comments on the draft. Thanks to Hannah O'Sullivan for telling me about the use of glucose in neonatal care.
[2] Daniel K. Sokol, 'How the doctor's nose has shortened over time; a historical overview of the truth-telling debate in the doctor–patient relationship'. *Journal of the Royal Society of Medicine*, Vol. 99. (2006). 632–636. Stephen Tyreman. 'Trust and truth: uncertainty in health care practice'. *Journal of Evaluation in Clinical Practice*, *21*(3), (2015). 470–478. http://doi.org/10.1111/jep.12332

future developments, they help us discover the natural history of an illness and reveal a prognosis. More than this, as patients, we may be ambivalent about hearing what fate has in store for us. As doctors, we must sometimes present certainties with equivocation, and doubts as certainties.[3] The very idea that there is a truth to be told about either one's feelings or one's future health relies on the idea that such a truth exists, that it is possible to know, and even the assumption that the future is determined by the present. We can perhaps more easily ascertain the physical world of medium-sized-objects, but the complex systems of the body, especially for those working within the disciplines of medical or psychological science, may more often be better described in terms of probabilities. The variety of maladies and disorders we might suffer; just like our experiences of love, are given form and nuance by the historical periods and the linguistic, cultural and technical apparatus that we have to hand to negotiate them.[4]

Metaphors where giving and taking truth as if it were medicine point to another problem: how– if, even– to break the news. How to make it palatable. The central tenet of the Hippocratic Oath, 'do no harm' is quiet on the nuances of how exactly we might navigate the waters between compassion and 'tough love'. Both Hippocrates and Plato considered deception as valid tools for the physician: 'words were seen as having the power to increase or alleviate the suffering of patients'.[5] The question of whether or not to lie to patients was most often debated with reference to lying being a sin and therefore problematic, if possible it was most often recommended that the 'bad medicine' of a 'gloomy prognostication' was withheld from patients.[6] As Daniel Sokol suggests 'In this context of therapeutic paucity, hope-instilling deception may have been an important weapon in a doctor's remedial arsenal'. Starting in the 1950s, attitudes changed towards practices of misleading, or simply not informing patients of a negative prognosis. Sokol suggests that this shift was likely associated with the availability of pharmaceutical drugs as viable treatment options. Tenets of patient autonomy, enabled by informed choice through physician openness and transparency have become central to the codes of 20th century medicine[7]. Despite this, the question of exactly how to 'break bad news' is far from resolved.[8] There are plenty of reasons to bend the truth, from self-interested deceit, to more benevolent goals that might still invite us to treat information, or lack of it, as a kind

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[3] This is a discussion that seems much less muddy in the theoretical ethical argument than in practice.

[4] Caroline Duffin's *Lovers and Livers,* tells the story of love's time as a physiologically manifest disease. Duffin, J., *Lovers and Livers; Disease Concepts in History*, Toronto, Buffalo, London: University of Toronto Press. (2005).

[5] Marco Annoni and Franklin G. Miller, Placebo Effects and the Ethics of Therapeutic Communication, *Kennedy Institute of Ethics Journal* Vol. 26, No. 1, 79–103. (2006), 80.

[6] Sokol, 'How the doctor's nose has shortened over time'. (633) Sokol charts a dramatic shift in US physician's attitudes to informing their patients of a cancer diagnosis, where in 1953 over half surveyed said that they would never reveal such a diagnosis, because of the negative emotional effects. (634) He points out more recent research on what surgeons reveal to patients regarding malignancies suggest that there remains a discrepancy between the medical guidelines that medics purport to be following and how this is manifests in practice. (635)

[7] For a thorough analysis of lying, deception, misleading etc. in the medical context see: Jennifer Jackson, *Truth, Trust and Medicine,* London and New York: Routledge, (2001).

[8] Lesley Fallowfield and Valerie Jenkins. "Communicating Sad, Bad, and Difficult News in Medicine." *The Lancet 363* (9405): 312–19. doi:10.1016/S0140-6736(03)15392-5. (2004).

of medicine. Are the facts always helpful in recovery?[9] What and how do we tell people if we don't want them to lose hope?[10] Would a bitter pill make a better medicine?

Honesty and healing: A spoonful of sugar

Sugar in healing has a long lineage. The archetypal 'sugar pill' is the placebo tablet, named for the Greek, 'I shall please' from 'placare' to placate. The placebo's sugary nature is as much symbolic as factual, as often placebos are made from other ingredients– whatever met the expectations of the patient, or the needs of the trial best. Olive oil capsules, lactose powder, bread pills, injections of saline, and coloured water, syrups[11] are all variants on the sugar placebo. As well as being given by medics more often than we might usually expect,[12] placebos are used as dummy treatments in medical trials to isolate the effects of being treated from the specific treatment being tested.

Untangling the mechanisms by which interventions other than medical treatments lead to improvement in patients isn't an especially simple matter.[13] What experiments comparing different placebo treatments show is that one factor in influencing the effectiveness of some medical treatments is the way in which the treatment is presented. In the case of medicines, factors such as colour and shape of tablets, or the way in which the medicine is administered– for example tablet vs injection, all influence treatment outcomes.[14] Placebo healing now has a well-established place in medical literature, and recognition of the potential for deception to heal has motivated researchers concerned

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[9] Daniel Moerman, (2002) *Meaning, Medicine and the 'Placebo Effect,'* Cambridge: Cambridge University Press.

[10] Bad news might be understood to directly harm patients through negative placebo or 'nocebo' effects see; Rebecca Wells, and Ted Kaptchuk, To Tell the Truth, the Whole Truth, May Do Patients Harm: The Problem of the Nocebo Effect for Informed Consent. *The American Journal of Bioethics*, *12*(3), 22–29. (2012). http://doi.org/10.1080/15265161.2011.652798

For a recent review of the discussion around training in giving bad news see: Fallowfield, L., & Jenkins, V. Communicating sad, bad, and difficult news in medicine. *The Lancet*, *363*(9405). (2004) 312–319. http://doi.org/10.1016/S0140-6736(03)15392-5

[11] More recently materials that are thought to be entirely inert when they are in the human digestive system have been used to make dummy pills, such as micro-crystalline cellulose, this material is also used as a filler in tablet pressing. A common use of sugar pills is in birth control tablets, where sucrose tablets are added to packs on specific days in order to provide a 5-day period of bleeding that simulates menstruation.
For an overview of the available in Beatrice Golomb, 'What's in Placebos: Who Knows? Analysis of Randomized, Controlled Trials', *Annals of Internal Medicine*. (2010), 534.

[12] A number of studies have documented GPs offering placebo treatments, for an overview and analysis of the way in which medical professionals and their patients see: Doug Hardman, et al. "From Substance to Process: a Meta-Ethnographic Review of How Healthcare Professionals and Patients Understand Placebos and Their Effects in Primary Care." *Health: an Interdisciplinary Journal for the Social Study of Health, Illness and Medicine* 19 (September): 136345931880016–26. doi:10.1177/1363459318800169. (2018) Often instead of using outright deception, drugs such as antidepressants are given at below active dose or to treat illness for which they would not have any known effect, such as the provision of antibiotics for patients with a cold.

[13] A recent useful analysis is offered by Jeremy Howick. The relativity of 'placebos': defending a modified version of Grünbaum's definition. Synthese, 194(4), (2016) 1363–1396. http://doi.org/10.1007/s11229-015-1001-0

[14] Moerman, *Meaning, Medicine and the Placebo Effect.*
For a discussion of some of the epistemological implications of thinking about placebo effects in art and particularly design practice see– Hannah Drayson, 'Design (ing) and the Placebo Effect-A Productive Idea'. *Design Issues, MIT Press.* (2018). http://doi.org/10.1162/desi_a_00494

with harnessing these effects and the ethical implications of the 'dishonest' pill.[15] In the case of the placebo, whether through deception or design, what is central is that the placebo treatment creates a perceived disjuncture between form and material in which the content, or lack of it, is hidden from us. Sugary pills can play at least two roles in medicine; either as coating, to help 'real' medicine to go down, or to substitute it entirely offering a pharmacologically inert object, that stands in symbolically for a– perhaps non-existent– treatment.

Sweetness as medicine.

Through the efficiency of its production and calories per acre, sugar offered a highly efficient crop in historical periods of rapid population growth. Sugar has funded empires, and fuelled armies and workers.[16] A ubiquitous component of the western diet, its overconsumption is now considered a social and health problem. Yet it wasn't always so maligned. In addition to the function of stand-ins or flavour masks,[17] cane sugar, up until the late middle-ages was a spice, an exotic additive.[18] It was also considered an important medical substance, a stimulant and used to bind together other materials such as spices or as part of a variety of bitters and tonics. Honey, made by a species of bee originally native to the Mediterranean, has even more ancient meanings as a medical, and magical substance, particularly prized for its exceptional quality as a preservative which meant that it was used in Egyptian mummification practices.

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[15] There is now also work going on with 'meta-placebo' or 'open label' placebo, in which the false medicine is given openly, accompanied by information about the beneficial effects of placebo and strangely this too has been found effective.
Oskar van Deventer. Meta-placebo: Do doctors have to lie about giving a fake treatment? *Medical Hypotheses*, *71*(3), (2008). 335–339. http://doi.org/10.1016/j.mehy.2008.03.040
For an example trial; Ted Kaptchuk, et al. Placebos without Deception: A Randomized Controlled Trial in Irritable Bowel Syndrome. (2010). *PLoS ONE,* 5(12), e15591–7.
http://doi.org/10.1371/journal.pone.0015591

[16] Mintz, *Sweetness and Power.*

[17] Even in medieval pharmacy, pills, as balls or tables of material moulded or cut were coated with other materials, including plant substances and even precious metals in medieval times to mask their flavour. In the 1800s sugar was added to the list of substances used for this purpose. It was in 1843 that an English chemist devised a process for pressing tablets from dry materials. In the case of many contemporary drugs, the extremely unpleasant bitterness of their flavour has led to the invention of many different processes of 'flavour masking' where compounds are coated in waxes or polymers that will not dissolve in saliva, only releasing the drug once it has reached the stomach. While bitter compounds might be sealed in tablet form, given the difficulty of getting babies, children and the elderly to take tablets, the question of how to mask flavours in liquids is still an issue.
George Griffenhagen and Glenn Sonnedecker Apothecary: A History of Sugar Coated Pills and Tablets. Journal of the American Pharmaceutical Association (Practical Pharmacy ed.)Volume 18, Issue 9, September 1957, 553-555.
Julie Mennella, and Gary Beauchamp. (2008). Optimizing oral medications for children. *Clinical Therapeutics*, *30* (11), 2120–2132. http://doi.org/10.1016/j.clinthera.2008.11.018
Nicole Gaudette and Gary Pickering (2013). Modifying Bitterness in Functional Food Systems. *Critical Reviews in Food Science and Nutrition*, *53*(5), 464–481. http://doi.org/10.1080/10408398.2010.542511

[18] '[…] an exotic condiment, properly classifiable with pepper, cinnamon, nutmeg, cloves and mace a flavour of the orient which could transmute food and elevate it out of the ordinary.' Felipe Fernández-Armesto, *Food, A History*. London : Macmillan. (2001) 205-6.

It is no accident that the virtues of sweetness persist today, partly as placebo, through considered branding in which the presentation of medicines have become hooked up with tastes and expectations.[19] Some of the oldest print advertising was aimed at the marketing of what were called 'patent medicines', nostrums, often syrups, which contained cocktails of ingredients and were intended as cure alls. Advertised in periodicals, they were also sold over the counter but most commonly through the public performance of a 'medicine show' which used a variety of entertainments to draw in an audience and then sell the 'snake oil'. The claims made for these cocktails might seem quaint, but if we look to the present day, the size of the pharmaceutical industry and the way in which marketing shapes contemporary imaginations and myths, presents a somewhat sinister relationship.[20] In conter David Healy's *Pharmageddon* explores the way in which drug marketing practices seek to exploit patents on specific medicines. They do this by identifying the concerns of doctors and then specifically designing campaigns to raise awareness of conditions and syndromes rather than treatments; 'When a pharmaceutical company gets a drug on the market for lowering cholesterol, for osteoporosis, or for erectile dysfunction, this now marks the point at which the company begins to sell the condition, the point at which they can gear up to reengineer the medical marketplace to suit their product.'[21] For example starting in 1995, manic-depression, a severe condition usually requiring hospitalisation, has been rebranded as the apparently far more common bipolar disorder. To complement this newer understanding of bipolar as epitomised by unhelpfully fluctuating moods, the new category of 'mood stabilisers' was invented, as a way to rebrand and identify larger and more specific markets for existing drugs such Depakote.[22] While we can consider these industries with the suspicion they deserve, we can also take note of what they tell us about healing as a practice of communication, context, and the management of expectations (and how these have been hijacked to become a norm). While medicine is often now recognised as a series of consumable products and treatments, epitomised by the pill as object, the imaginaries and concepts that the pharmaceutical industry has developed around them to make sense of the products they offer increasingly shape contemporary subjectivities[23] and bodily awareness.

A Bitter Pill

In his essay on the psychosociology of food Roland Barthes looks for a way in to move beyond our understanding of sugar as merchandise or nutritional substance, but as 'a

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[19] A particularly old brand is the luxury product Lyle's Golden Syrup, developed by the Lyle family in 1885, and originally based on a by-product of the sugar refining process. Health, refinement and purity were key problems for the consuming public as food production became industrialised. Through its virtuous markets Golden Syrup, a synthetic by-product was able to mimic honey, substituting it as a material, thick, golden and viscous, as well as in the packaging which referenced a long history of bees as sacred creatures. Until the 1950s it was held by some to be a superior and, because of its homogenous quality, pure substance. Philippe Chalmin, *The Making of a Sugar Giant: Tate and Lyle, 1859-1989.* (1990). Chur: Harwood Academic Publishers. (101-2)

[20] Robert Bennett's *Pill* gives a good overview of the recent 'rapid and pervasive explosion–not just of psychiatric drugs themselves, but of an entire psychopharmacological paradigm'. Robert Bennett, *Pill.* New York: Bloomsbury Academic. (2019) (27)

[21] David Healey. *Pharmageddon*. Berkley and Los Angeles: University of California Press. (2012)

[22] Healey, *Pharmageddon :* 35.

[23] Robert Bennett, *Pill :* 1-30.

concrete item that is eaten'. [24] Rather that this being a simple matter, he describes different foods as being 'institutions' each of which 'imply a set of images, dreams, tastes, choices and values'.[25] Particularly in the case of consumer goods which are manufactured, standardised and 'ideal in nature', the symbolic function of a food comes to overshadow the 'mass of indifferent materials' from which it is produced.[26] As Barthes describes it, while food gives strength to the organism, that strength is immediately sublimated to particular situations, its meaning is shifted in sometimes paradoxical ways. He gives the example of coffee, no longer associated with the stimulation that purportedly made possible the French Revolution, coffee is now synonymous with taking breaks, socialising and the relaxation from work. In contemporary French society then 'coffee is not so much a substance, as a circumstance […] organically integrated into its specific type of civilisation'.[27] These 'deformations or reconstructions are […] elements of a veritable collective imagination, showing the outlines of a certain mental framework' and a 'body of images, a protocol of usages, situations and behaviour'.[28]

This body, for Barthes, presents a 'spirit' of food that brings together flavour and substance. He points here towards advertising media and the dimension of the phenomenological, suggesting that our understanding might benefit from a Bachelardian 'poetic' analysis[29]. He gives the example of the word 'crisp' which combines a number of somewhat contradictory images and sensations, showing that 'the unit of food can overthrow logical categories' and 'goes beyond the purely physical nature of the product';

> Crisp designates everything that crunches, crackles, grates, sparkles, from potato chips to certain brands of beer; crisp - crisp may be applied to a product just because it is ice cold, to another because it is sour, to a third because it is brittle. […] crispness in a food designates an almost magical quality, a certain briskness and sharpness, as opposed to the soft, soothing character of sweet foods.[30]

'Night Nurse, Oh the Pain is Getting Worse'.[31]

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[24] Roland Barthes, 'Toward a psychosociology of contemporary food consumption'. *Food and culture: a reader.* Carole Counihan and Penny Van Esterik (eds) (2008) New York: Routledge: (28)
Barthes begins his essay by pointing out the disparity between the consumption of sugar in French and American culture. Commenting on this, Mintz suggests that there are variations in the palates of the two cultures which means that French wine and coffee culture may have lowered the country's overall tendency toward the consumption of sweet substances. While to an extent there is a training of the palate that allows us to appreciate coffee, tobaccos and wine – along with the disposable income necessary to secure these commodities it is also the case that older mouths contain less bitter sensitive taste buds. It is in fact the deadening of our senses that allows us to be less distressed by the distaste of unpleasant flavours and, quite possibly the shifting meaning of sweetness as we mature.
Sidney W. Mintz, *Sweetness and Power: The place of sugar in modern history.* NY: Viking (1985) : 189.
[25] Barthes, *Toward a psychosociology,* 29.
[26] Barthes, *Toward a psychosociology,* 31.
[27] Barthes, *Toward a psychosociology,* 34.
[28] Barthes, *Toward a psychosociology,* 29.
[29] Barthes, *Toward a psychosociology,* 31.
[30] Barthes, *Toward a psychosociology,* 31.
[31] Jeremy Isaacs, *Night Nurse*. (1982). Island Records.

Perhaps it is that soft, soothing character that makes sweetness so useful in medicine, and characterises its own 'spirit' or 'unit of food'. In a paper about the placebo effects of cough medicines, Ronald Eccles discusses the large number of foul tasting cures intended for the treatment of a cough in the Merk's *Materia Medica,* suggesting the taste of the medicine is as important as its effect. While traditionally the inclusion of sweet agents would have been intended to cover up these unpleasant tastes, recent research suggests that it is the sweet taste of the syrup itself that has a suppressant effect on a cough.[32]

Maybe it is because of the way sugar can be used to mask taste, syrup-based medicines are a ubiquitous figure in pediatric medicine. In the United Kingdom, the National Health Service currently provides a set of vaccinations for new babies when they reach 6 weeks old. To prevent fever brought on by the meningitis B vaccines, and to reduce pain at the site of injection, babies' carers are advised to give them 2 doses of liquid paracetamol. Recognisable for its chalky, bitter taste, paracetamol is the most common analgesic medicine in use in the UK. In 1959 it began to be sold by Calmic Ltd. suspended in a sugary solution that masked the bitter flavour and meant that it could be administered to children under the name 'Calpol'. The experience of being fed this glistening sucrose on a small plastic spoon, the sides of which almost cutting into the upper lip is, for people who grew up in the United Kingdom an easily invoked and ubiquitous childhood memory. As Jenny Kleeman suggests in a recent article for the *Guardian*, the ubiquity of Calpol in contemporary parenting, and the accompanying marketing campaigns that have connected the drug with calm, sleeping babies has led to a situation in which parents are 'psychologically dependent' on Calpol as a placebo. As she suggests, it is not the paracetamol, but the lowering of parental anxiety that may be calming fractious children.[33]

The attempt to comfort pain with sweetness also manifests in the use of 'sucrose administration' as 'non-pharmacological analgesia' for new-born babies when they are subjected to painful tests after birth.[34] While using sugar for pain relief is as old as the hills, it seems a practice tinged with guilt, due to the deception involved. Masking bitter flavours

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[32] Ronald Eccles, Mechanisms of the placebo effect of sweet cough syrups. *Respiratory Physiology & Neurobiology*, *152*(3), (2006). 340–348. http://doi.org/10.1016/j.resp.2005.10.004
While Schroeder and Fahey concluded that there was no reason to recommend cough syrups because their effects were no better than placebo, Eccles points out that this does not mean that they are not a useful placebo treatments, given that they are more effective than no treatment. As Cohen comments; 'Parents and physicians want symptomatic relief of cough associated with upper respiratory tract infections. If a placebo is low cost, has no or minimal adverse effects, and it can reduce unnecessary antibiotic treatment, it appears to be a preferable treatment option.'(1321)
Herman Cohen, Demonstration of placebo effect for nonspecific cough medicine. *The Journal of Pediatrics*, *166*(5), 1320–1323. (2015). http://doi.org/10.1016/j.jpeds.2015.02.060
Knut Schroeder and Tom Fahey, 'Systematic review of randomised controlled trials of over the counter cough medicines for acute cough in adults'. *BMJ (Clinical Research Ed.)*, *324*(7333), (2002). 329–331. http://doi.org/10.1136/bmj.324.7333.329
Paul M Wise, Paul Breslin, Pamela Dalton. 'Sweet taste and menthol increase cough reflex thresholds.' *Pulmonary Pharmacology & Therapeutics,* 25 (2012).
[33] Jenny Kleeman, 'Why parents are addicted to Calpol'. *The Guardian.* (2019). Retrieved June 6, 2019, from http://www.theguardian.com/lifeandstyle/2019/jun/04/why-parents-are-addicted-to-calpol
[34] Chris Henderson and Sue Macdonald, (eds) *Mayes Midwifery: A textbook for midwives.* Edinburgh: Baillire Tindall. (2004) p.261.

is what we do in order to get children to eat things they would naturally refuse. A potential irony is that this method of pain reduction may only *appear* effective in infants because giving them sugar reduces their grimace response, which is one of the few measures of pain available.[35]

The end of the affair

The metaphorical potency of sweetness as a mediator of pain as opposed to the bitterness which we might 'stomach', points toward the nature of the 'spirit' of this functional food. When given to a lover, sugar mimics the giddiness and intoxication of a new, or reignited love affair, but perhaps also serves as a Trojan horse. Is a box of chocolates the indulgence in advance of pain, the glucose drops that are given before the heel prick? As a bribe, it is an anxious and paternalistic one, a pact made with an unruly child that doesn't know what is good for it, to get things down the virtuous gullet, broccoli precedes chocolate mousse. Perhaps a sugared pill is better, because in the end, it shows us that someone cares enough to lie.

The placebo functions of sweet tastes show how sugar syrups have a special place within material and medical culture, a place that has multiple functions. In their entanglements with care, and those we care for, sweetness offers a mask, a distraction and perhaps an apology for what we cannot fix. While perhaps there is a sense that what is good for us should hurt, this mobility of meaning is somehow mapped onto the same ambiguities of love, care, and all the tough responsibilities that they carry. Perhaps only this can at the same time explain sugar's effectiveness in scientifically suspect medicines and why one of the best cures for a broken heart is still a bar of chocolate.

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Philippe Chalmin, *The Making of a Sugar Giant: Tate and Lyle, 1859-1989.*. Chur : Harwood Academic Publishers. (1990), 101-2.

[35] A 2010 trial using EEG measures of infant's brain activity during painful diagnostic procedures suggested that the prevalent practice of giving oral sucrose to newborns was only to mask pain, not reduced it. NHS guidelines still include the giving of oral sucrose prior to painful procedures.
Rebecca Slater et al. (2010). Oral sucrose as an analgesic drug for procedural pain in newborn infants: a randomised controlled trial. *The Lancet*, *376*(9748), 1225–1232. http://doi.org/10.1016/S0140-6736(10)61303-7
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