

## The Social Epistemology of Clinical Placebos

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**Abstract:** Many extant theories of placebo focus on their causal structure wherein placebo effects are those which originate from select features of the therapy (e.g. client expectations or ‘incidental’ features like size, and shape). Although such accounts can distinguish placebos from standard medical treatments, they cannot distinguish placebos from everyday occurrences e.g. when positive feedback improves our performance on a task. Providing a social epistemological account of a *treatment context* can rule out such occurrences, and furthermore reveal a new way to distinguish clinical placebos from standard medical treatments.

**Keywords:** Social epistemology, expertise, care, clinical placebos

### I. Introduction

It is remarkable that placebos can *work*. Sugar pills can relieve pain, and sham surgeries can increase mobility. Placebos and their effects are well-documented phenomena<sup>1</sup> that have captured popular and medical imagination. Many extant theories of placebos focus on their causal structure, wherein placebo effects are ones that originate from select features of the therapy e.g. client expectations or ‘incidental’ attributes such as their shape, size, and color. By contrast, my approach employs social epistemology to argue that clinical placebos are partially constituted by the epistemic features of the social context in which they are administered, and furthermore have a distinctive normative profile.

This paper raises two constraints for any theory of placebo. Constraint 1 (“C1”) placebos must be distinguished from *ordinary encouragement*, where some intervention is aimed at improving a person’s condition but nevertheless fall short of being a placebo, e.g. positive feedback improving our performance on a task. Constraint 2 (“C2”) placebos must

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<sup>1</sup> For a very recent and thorough article on these effects see (Colloca and Barsky 2020), as well as Jeremy Howick’s response (Howick et al. 2013) to the controversial meta-analysis of placebos across clinical conditions found in (Hróbjartsson and Gøtzsche 2010).

be distinguished from *standard medical treatment*, for example, taking antibiotics for strep throat or getting ACL reconstruction surgery for a torn ACL. In this paper these two constraints are met with a positive proposal that identifies the core characteristics that all clinical placebos share. Placebo administration must take place in a perceived *treatment context*—a context in which a patient takes themselves to be receiving an intervention intended to check, mend, restore, or maintain their health from an expert. This meets the first constraint—ordinary encouragement does not take place in perceived treatment contexts. To meet the second constraint, I introduce a principle to distinguish placebos from standard treatments. Placebos are governed by the *resemblance principle*. That is, placebos are held to a norm such that they are better if they resemble an extant standard treatment. In contrast, standard treatments are not held to this norm—they are not better if they resemble, or are designed to resemble, some other extant treatment. This meets the second constraint. Call the conjunction of these responses to constraints one and two, the Social Positioning Account of clinical placebos.

## II. Causal origins accounts of placebo

For those who are interested in giving a unifying<sup>2</sup> account of placebos, it is natural to define placebo effects as those effects that originate from a select set of features of the relevant therapy. I call this family of views *causal origins accounts*<sup>3</sup>. One of two strategies are usually adopted: define placebo effects as those which originate from client expectations

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<sup>2</sup> Note that not all theorists want a unifying account of placebo, i.e. accounts that attempt to capture the core characteristics that all and only placebos share. There are also deflationist accounts that argue that the notion of placebo is misguided and misleading because ‘placebo’ does not refer to any distinct set of interventions or effects in the world (Corns 2018), sub-set accounts wherein ‘placebo responses’ are a subset of a wider category of effects and not its own distinct phenomenon (Hutchinson and Moerman 2018), and pluralist accounts that argue that although there is no unitary notion, ‘placebo’ might be a set of family resemblances (Alfano 2015). Unifying accounts—on this understanding—include: (Shapiro and Morris 1978), (Grünbaum 1986), (Howick 2017).

<sup>3</sup> Causal origins accounts do not exhaust all theorizing about placebo, but they are a representative sample.

or define placebo effects as those which originate from ‘incidental’ features of the therapy (e.g. size, shape, color, bulking agent).

Following the first strategy, Colloca and Barsky use the following definition.

“Placebo and nocebo effects are the effects of patient’s positive and negative expectations, respectively, concerning their state of health” (Colloca and Barsky 2020, 554). Kaas et al. refer to “perceptions or expectations” (Kaas, Humbyrd, and Pantelyat 2018, 473). Burke et al. appeal to factors such as “expectancies, emotions, and cognitive framing” (Burke et al. 2019, 101). Greenwood refers to “client expectancy and therapist commitment” (Greenwood 1996, 615). The idea here is that placebo effects are precisely those effects that originate from client expectations (where ‘expectation’ is some kind of mental state, albeit one that is usually left undefined such that it is not clear whether it is more akin to a belief or a desire, alief, or is sui generis).

Following the second strategy, Grünbaum defines placebo effects as those which originate from incidental features of a therapy (where being ‘incidental’ as opposed to ‘characteristic’ is determined by some theory  $t$ ). Grünbaum illustrates the distinction with two examples. If a patient has gallstones, the surgery to remove the stones is the treatment, the removal of the gallstones is the characteristic factor, and the anesthesia administered to the patient is an incidental treatment factor. In Freudian analysis, Freud recommended charging a hefty fee (the incidental factor of treatment) because it leads to the patient being more invested in, and receptive to, analysis (the characteristic factor of treatment) (Grünbaum 1986). Howick builds on this view by restricting the notion of a ‘characteristic’ feature to be those that have “an incremental benefit on the target disorder over a legitimate placebo control in a well controlled trial” (Howick 2017, 1392). Thus, ‘incidental’ factors will be those which do not show any incremental benefit on the target disorder as is revealed by

scientific investigation. To illustrate, ‘incidental factors’ might be things like pill shape or bulking agent, and not things like penicillin or acetaminophen.

Two things to note: first, although these accounts focus on *properties* of therapies which cause placebo *effects*, they can easily be extended to define placebos understood as an objects or interventions<sup>4</sup>. Namely, placebos will be objects or interventions which have only those select placeboogenic properties. Second, traditionally things like client expectation and incidental factors do not in general have a medical indication for the relevant disorder<sup>5</sup>. That is, there is no community endorsed reason (by the medical sciences at large) for their administration (for the relevant target disorder). I take that as a starting point and assume for the sake of argument that placebos do not have medical indications.

Although causal origins accounts have been highly successful, it is important to observe that *expectations* and *incidental factors* are properties that, in many contexts, cause effects that are not placebo effects. My proposal is to approach the topic of placebos from a different angle—prioritizing an analysis of the context of placebo administration in order to meet (C1), and appealing to the distinctive normative profile of placebos in order to meet (C2).

My solution for meeting (C1)—introducing the notion of a treatment context—in no way conflicts with the claims made by causal origins accounts. That part of this project is compatible with, and indeed complements, causal origins accounts. However, my second

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<sup>4</sup> Note that both Grünbaum and Howick do this explicitly in their work. For the authors who do not, it is an easy exercise for the reader to see how their views extend to account for the placebo itself rather than focusing exclusively on the effect.

<sup>5</sup> There is some trickiness here because setting client expectations might have a medical indication in some cases, e.g. in psychiatric or psychological interventions it might be a part of the therapy to set the client’s expectation in a particular way in order to treat depression or anxiety, etc. But it should be noted that having a medical indication is more robust than the existence of a general, community-wide, consensus that bedside manner is important in the practice of medicine. We might say that setting a client’s expectation (to ‘neutral’ or ‘positive’ rather than ‘despair’) is an important part of battling cancer, but strictly speaking, having a neutral/positive outlook is not medically indicated for treating cancer.

proposal—meeting (C2) by introducing the resemblance principle—gives an alternative way to distinguish placebos from non-placebos, one that does not appeal to causal origins at all, and instead appeals to the distinctive epistemic norms that we hold placebos to (which we do not hold non-placebos to). Thus, I end by arguing for a competing view, but one that I think many will find intuitive and appealing.

### III. Ordinary Encouragement

How ought we distinguish placebo effects from more ordinary cases in which, (1) an object or intervention affects us, (2) the intervention doesn't have a medical indication, but (3) the intervention is nevertheless not a placebo? Theories of placebo must be able to answer such a question, and by doing so, rule out cases like the following:

- (i) My father yells 'you can win this!' at the end of a race, and this positive suggestion causally affects the length of my running stride (the stride lengthens).
- and
- (ii) A friend brings me my favorite nutritious meal while I am stuck at work, and the meal positively affects my mood (my productivity increases).

These cases are not ones of placebo. Call these kinds of cases ones of *ordinary encouragement*.

Ordinary encouragement happens all the time. It is not surprising that eating our favorite meal can affect our subjective report of well-being or hearing positive feedback can improve our performance on a task. Indeed, all the substances we ingest and all social interactions we take part in will have *some* kind of effect. But intuitively, these cannot all be cases of placebo. The quotidian nature of ordinary encouragement puts pressure on all conceptual analyses of placebo because it seems there is something special about placebo, but it is not at all obvious what exactly that amounts to.

*Prima facie*, cases of ordinary encouragement look very similar to placebo cases. In both instances, someone or something intervenes on us in a way that is not medically indicated, but nevertheless can play a causal role in bringing about some (hopefully positive)

outcome on the relevant condition. Ordinary encouragement often has this structure—e.g. the father’s encouragement that plays a causal role in his daughter winning the race—and yet, I submit to the reader that ordinary encouragement is not a placebo.

One needn’t posit a sharp distinction between ordinary encouragement and placebo administration to see the pressure that ordinary encouragement puts on theories of placebos. Even if one is convinced—as I am—that there is a gradient between placebo administration on the one hand, and ordinary encouragement on the other (with a grey area of borderline cases in the middle), it is nevertheless incumbent upon any theory of placebo to explain (1) why the clear cases of ordinary encouragement are not placebos, and (2) define the axis upon which the gradient lies. One core motivation for the Social Positioning Account of placebos is to move away from defining placebos in terms of their causal chains, and instead focus on the epistemic features of the social context of their administration (a full discussion on this point can be found in section ten).

#### **IV. Treatment Contexts and Contexts of Care**

My answer to C1—distinguishing clinical placebo administration from ordinary encouragement—is to say that clinical placebo administration always takes place in a *perceived treatment context*. In order to get a grasp on what it means to perceive oneself to be in a treatment context, the notion of a treatment context itself must first be specified.

Treatment contexts are a subset of a more expansive category: *contexts of care*. Both are constituted by social practices, where the former is distinguished from the latter by the differing social roles of those involved. A context of care is meant to capture host of social practices including but not limited to emotional labor, washing, feeding, and dressing, giving advice, rearing, and tending to. Treatment contexts can be distinguished from among contexts

of care when the care giver is recognized for their expertise. Treatment contexts are always contexts of care, but many contexts of care are not treatment contexts<sup>6</sup>.

Let us begin with the more expansive notion of a context of care. Caring can be decomposed into two components: suites of intentional actions (e.g. washing, dressing, listening) and attendant attitudes such as loving, sympathizing, and respecting. Consider the following selections from Joan Tronto and Berenice Fisher's analyses of care:

When I say 'care,' I don't mean only healthcare, childcare, and caring for the elderly. I don't mean only finding a babysitter on a website called Care.com. I mean, as Berenice Fisher and I defined it some time ago, 'in the most general sense, care is a species activity that includes everything we do to maintain, continue, and repair our world so that we may live in it as well as possible. That world includes our bodies, our selves, and our environment, all of which we seek to interweave in a complex life-sustaining web.' Usually, when people hear this definition, they are a little stunned. It is *so* broad (Tronto 2015, 3).

In ordinary usage, the expression *caring about* is often used to suggest love or affection. Love or affection may play an important role in caring about (when you love someone or feel fond of them you are likely, although not certain, to pay more attention to their needs), but caring extends beyond these particular emotions (Tronto and Fisher 1990, 42).

In these passages the accounts of care are extremely broad, too broad to get enough purchase on the social practices of interest here. They would, for example, include certain automatic biological functions that support the maintenance and continuance of our bodies as a practice of care. Breathing, for example, is species of activity that supports the maintenance and continuance of our bodies. It cannot, however, be an instance of care as we are interested in

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<sup>6</sup> This distinction is not meant to be value-laden. Treatment contexts are, of course, extremely valuable (as valuable as curing cancer, and inoculating a child), but should not be assumed to always be more important or socially valuable than other contexts of care (feeding a relative, or washing the elderly). It may be that they are incommensurable. It is a hard question to ask (let alone answer) whether curing a case of cancer is more or less important than feeding a hungry child. However, the value-neutrality of the distinction between treatment contexts and contexts of care is important to keep in mind, especially given that it is constitutive of the treatment context that one of the participants is perceived to have expertise of a certain kind. Although *social capital* often accrues to expertise, this does not always track *social value*.

here. To address this, the scope of care-taking must be restricted to those activities that are intentionally undertaken for the purpose of maintaining or repairing the body. This would rule out breathing (understood as an automatic function), but rule-in the intentional breathing exercises a person might practice in order to stave off an impending panic attack<sup>7</sup>.

The passages from Tronto and Fisher above highlight that care is not only characterized as an activity, but as an activity that sometimes involves particular emotions or attitudes. This seems to capture something deeply right about care. Namely, the usual attitudes (e.g. loving, sympathizing) affiliated with the colloquial use of ‘caring’ are not necessary constituents for contexts of care. We need not be loving or affectionate to be in a context of care. Consider the case of a clinically depressed person. They may experience no sympathy, love or respect for themselves, but may still practice self-care by showering, clothing, and feeding themselves. Similarly, a hospice worker may be exclusively motivated by financial need (and not affection) for tending to their clients, and yet it would be wrong to say they are not acting in a context of care. Such cases show that it is the behavioral suite of intentional activities—rather than the attendant attitudes that may or may not motivate such behaviors—that is important for determining whether or not a particular practice is an instance of care.

Care is also focally concerned about meeting basic needs. Supererogatory activities—e.g. buying someone dinner when they can well afford it on their own—is a kind thing to do, but is not the sort of intentional activity characteristic of contexts of care<sup>8</sup>. Being in a context

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<sup>7</sup> In a similar vein, forgetting one’s lunch on a park bench and so incidentally feeding someone in need is not an act of care, precisely because it is not an intentional act. Care-taking practices are intentional activities that are aimed *directly* at benefiting the one being cared for (*c.f.* Tronto, 2015).

<sup>8</sup> Consider Daniel Engster on the aims of care: “[C]aring is better understood in a more basic way, as helping individuals to meet their basic needs and to develop and sustain those *basic or innate capabilities* necessary for survival and basic functioning in society, including the ability to sense, feel, move about, speak, reason, imagine, affiliate with others, and in most societies today, read, write, and perform basic math” (Engster 2005, 52). However, the



of care one, then, involves having the intention to participate in a suite of behaviors that meet a basic need directly, regardless of what kind of attendant attitude motivates us.

*Treatment contexts* are a more specialized variety of a context of care, and it is only in a perceived treatment context that the administration of placebo can occur. First, I will define and describe what a treatment context is. Following that I will argue that clinical placebos require that the subject perceives themselves to be in a treatment context (although that perception might, in some cases, be illusory).

Minimally, a treatment context involves two distinct social roles<sup>9</sup> (henceforth the roles of ‘patient’ and ‘practitioner’), where the patient is an individual receiving some kind of attention or intervention, and the practitioner is recognized for having expertise on the patient’s condition.

Practitioners must have specialized beliefs of the right kind. Not just any set of specialized beliefs will do. A professor of mathematics is not a practitioner even if she sits in a doctor’s office and sees patients—she does not have the right kind of specialized beliefs.

Holding such beliefs is a necessary condition for being a practitioner<sup>10</sup>.

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category of ‘basic needs’ is quite broad, so stated. Again, the scope must be restricted. Basic needs cannot include everything that must be satisfied in order to live a maximally good life—the bar is somewhat lower than that. Basic needs aim at something like *survival* or *well-being* rather than full flourishing (where well-being can be promoted through preventative medicine, as well as medical practice aimed at relieving symptoms or curing disease, and perhaps facilitating certain forms of recreation as well). A full analysis of which activities are rightly understood to be promoting survival and well-being are beyond the scope of this paper. However, caretakers who form the intentions to aid in someone’s survival or well-being, but regard their wards’ flourishing as outside the scope of their responsibility still count as participating in a context of care. Caretakers might *also* try to promote their wards’ flourishing—parents, for example, will usually intend to meet their children’s basic needs and also promote their flourishing—but this is not strictly necessary for participating in a context of care. Often, those who depend on caretakers are in a deteriorated state of health such that full flourishing is no longer a possibility. Palliative care is a prime example.

<sup>9</sup> It is possible for two or more social roles to be instantiated in the same person. This point is elaborated on toward the end of this section.

<sup>10</sup> This is helpfully illustrated by a case raised to me by an anonymous reviewer. This condition would not only rule out the professor of mathematics as a practitioner, but also a “Chinese room” style of case wherein an actor is hired to play the role of a practitioner

Practitioners must also have expertise. Consider Stivers et al. on the topic:

When doctors recommend treatment to patients... physicians are treated as sources of authoritative information and expertise about medical problems. They exercise this authority, in part, during the treatment phase of the visit (Stivers et al. 2018, 1335).

Expertise involves (1) being in better epistemic standing than the lay-person in the relevant domain, (2) being empowered to pursue a wider range of intentional actions than the lay-person, and (3) having the skills (both practical and epistemic) to intervene at more fundamental metaphysical strata than the lay-person.

On the first point, an expert must be more justified in holding their beliefs than a lay-person, due to their having access to more or stronger evidence, and perhaps having a wider web of justified beliefs on the topic. As a result, experts are expected to be able to provide robust explanations as to *why* they recommend some course of action. Minimally, they should be able to provide explanations with some explanatory and predictive power. It has to be more than a non-expert's, 'well, it worked for me!'. We expect that the expert's explanations should be able to account for many, if not all, of the relevant phenomena being brought to their attention (e.g. symptoms) and be able to predict outcomes that would follow from intervening or failing to intervene.

On the second point, expertise empowers the practitioner to a wider range of intentional actions. We allow them to tell us what to do—what food to eat, what medications to take, or what policies to adopt. They “assume the right to direct patients’ future actions” (Stivers et al. 2018, 1335). This is not regarded as overstepping their social role in the way that a friend or co-worker would be if they were to make a similar recommendation.

Experts are furthermore expected to have the knowledge and skills allowing them to intervene at lower-level metaphysical strata. This is a question of metaphysical dependence.

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despite themselves not holding any beliefs with the right kind of content. In such a case, the actor is not a practitioner, as they do not themselves hold the relevant beliefs.

Namely, experts have the skills to intervene at the level of *fundamentalia*: in medicine, this might mean intervening at the level of molecular, chemical, or genomic entities, properties, or states of disease, upon which person-level symptoms depend.

This invokes a well-known metaphysical picture of the world—a layered world of ontological levels, such that microphysical goings-on, chemical goings-on, biological goings-on, psychological goings-on, social goings-on, and so on, each feature entities with different characteristic properties, states, and relations, distinctive of that level. These levels roughly correspond to the domains of inquiry native to each of the special sciences: fundamental physics, chemistry, biology, astronomy (and to name a few which include human entities in their domain) epidemiology, economics, sociology, etc. The idea is that the microphysical is more fundamental than the chemical, which is more fundamental than the biological, which is more fundamental than the psychological, and so on. Many medical experts are characteristically looking for ‘lower level’ (more fundamental) entities and relations distinctive of, e.g., chemistry and biology. The same point can be made of other kinds of expertise. Consider a car and its parts. If one’s car is broken down, the level of intervention a layperson would have the skills to make are at a higher level—to replace the whole car, for example. In contrast, an expert mechanic would have the skills to literally (and metaphorically) get under the hood, dismantle the engine, and replace the parts. This is here understood as a ‘lower level’ intervention—targeted at the ‘lower level’ upon which the car’s overall dysfunction depends. The expert has a set of skills that target more fundamental metaphysical strata as compared to the lay-person.

It is important to note that the notion of expertise introduced here does not always amount to expert *knowledge*. I do not claim that the person perceived to be an expert in a treatment context always knows the relevant proposition(s). It is possible for a practitioner to have expertise relative to some domain even if their beliefs turn out to be false. It would be

too strong a claim to say that the practitioner must always know the propositions that bear directly on the patient's condition. If a practitioner has false but justified beliefs that bear directly upon the patient's condition they will still satisfy these requirements, even though it turns out that they do not *know p*. Of course, we want our practitioners to have knowledge, but to define treatment contexts in a way that builds knowledge in would rule out far too many cases. The history of medicine is strewn with treatment contexts in which the practitioner did not have knowledge.

As it is defined above, treatment contexts involve a kind of social recognition. Does this entail that the practitioner is always recognized as an expert *by the patient* for the context to count as a treatment context? The answer is, roughly<sup>11</sup>, yes. It is not enough for the practitioner to be socially recognized as an expert exclusively by a third party or institution—the patient in particular must perceive their practitioner to be an expert. This is true even in counter-intuitive cases. Consider the case of a medical nihilist—someone who has little to no confidence about the effectiveness of medical interventions *tout court*. Such a person would correspondingly have little to no confidence that their practitioner deserves high esteem on the basis of their specialized beliefs. Nevertheless, if a medical nihilist went in to see her doctor and received some kind of intervention it would still count as a treatment context. The medical nihilist does not doubt that their practitioner is an expert in their field—the nihilist recognizes the practitioner as such. Rather, the nihilist doubts that the domain over which their practitioner has mastery is well-founded.

Although the two social roles being discussed—the role of 'patient' and 'practitioner'—are often inhabited by two different people, it is possible for both roles to be inhabited by one and the same person. That is, this view allows for the self-administration of

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<sup>11</sup> There will be instances where the patient is not themselves the decision-maker for medical decisions (e.g. very young children). In such cases, it will be the surrogate decision-maker who must perceive the practitioner to be an expert.

placebos. Consider a person who has run out of their sleep medication, and instead substitutes an ibuprofen in their nighttime routine to induce sleepiness<sup>12</sup>. My analysis of expertise above is attempting to give a framework for understanding expertise in a way that takes medical expertise as a core case, but is not wedded too closely to professionalization as an indicator (or constituent) of expertise. That is, it is meant to allow for e.g. parents to be experts with regards to taking care of their children, and for us to be experts in the regulation and management of ourselves. In self-administration cases, the distinction between ‘expert’ and ‘non-expert’ is not tracking professional status but would rather place the individual (S) who is self-administering as an expert relative to, say, a stranger. The person on the street is in worse epistemic standing than (S) with regards to the regulation of (S)’s bodily function and psychological states, is not empowered to make as wide a range of intentional actions as S, and does not have the same set of skills (for regulating bodily function and psychological well-being) that S has. That is, I take our experience of managing ourselves—our rituals, ‘self-hacks’, and strategies—quite seriously as a suite skills, beliefs, and knowledge that amounts to a specialized kind of expertise (where the domain is restrict to just ourselves). The self-administrator in this case has a history of taking their sleep medication at night, develops the theory that the ritual of taking a pill plays a causal role in their ability to fall asleep by attending to their past experiences, and acts according to that theory. The theory must be in good enough standing to motivate acting in accordance with that theory—otherwise we would not be able to rationalize the action.

However, I must anticipate a possible objection: what if the self-administrator does not recognize themselves as possessing this expert status? On my view, the self-administrator above would be an expert, but not recognized as an expert, and that would rule it out as a treatment context. We can imagine a case of a clinical depressed individual who, although

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<sup>12</sup> I thank an anonymous reviewer for this example.

they meet all the criteria for expertise, systematically underrates their status (as holding a good epistemic position and possessing a useful set of skills for self-management). In such a case, we could attribute no occurrent belief that “I am an expert” and seemingly no self-recognition of expert status. However, I believe there are two plausible responses to this objection. The first is to take a more pragmatist account of belief: the clinically depressed self-administrator *treats* themselves as an expert. If we are committed to the claim that beliefs always have some dispositional component, then by looking to someone’s actions we get a good sense of what they in fact believe. Treating themselves as an expert would then be sufficient for recognizing themselves as an expert. One can also appeal to belief fragmentation. That is, we can appeal to two different kinds of attitudes to explain the self-administrator case: on the one hand, they implicitly believe that they have specialized expertise (because this is how they act unreflectively and automatically) but on the other hand they explicitly believe they do not have specialized expertise (because they are unwilling to assert it). I think it is important for the self-administrator’s actions to be considered alongside what they are willing to assert, and I argue that the self-administrator’s actions are very good evidence for the kind of recognition needed to render this a treatment context.

Thus, treatment contexts are contexts of care in which one of the parties involved is recognized as being an expert (with the allowance that the roles of ‘patient’ and ‘practitioner’ might be instantiated by one and the same person). A caring action is an act that is intentionally undertaken in order to meet a basic need directly, regardless of what attendant attitude motivates the act. So, treatment contexts are ones in which someone recognized as an expert performs an act of care.

## V. Perceived Treatment Contexts

The claim that placebo administration must take place in *perceived* treatment context is motivated by observing that placebo effects might be found in contexts in which there is neither an expert nor even a caring action, and yet the patient perceives (i.e. misperceives) that there are both.

Take a classic suite of examples: “snake oil salesmen,” con-artists, and multi-level marketing schemes. Suppose the snake oil salesperson in such a case not only does not believe that the snake oil will be ameliorative for their clients, but in fact believes that the snake oil will do nothing or perhaps even have harmful effects. Yet, they *act* like a practitioner—presenting a completely fabricated theory as to why the snake oil will work, while emphasizing their own commitment to the ‘cure’. Individuals who are taken in by this can do so by virtue of it appearing to be a treatment context: it appears as if an expert is intentionally acting in a way that meets their needs (performing an act of care). I suggest that the epistemic position of the ‘patient’—perceiving themselves to be in a treatment context—is central to determining that these are cases of placebo administration rather than ordinary encouragement.

If the con-artist did not pose themselves as an expert, and did not manufacture an experience as of a treatment context, I suggest that buying and ingesting the snake oil would not in principle be any different than buying, and ingesting, a novel food or beverage. And, the difference between these two cases lies in the differing epistemic states of individuals involved. That is, it is epistemological features of the social context of administration (i.e. how the patient perceives the context that they are in) that distinguishes ordinary encouragement from clinical placebos. This can be further illustrated by revisiting the original cases of ordinary encouragement introduced in section III.

## VI. Ordinary Encouragement Revisited

The two cases of ordinary encouragement introduced in section one can be ruled out as follows. Neither (i) or (ii) amount to a perceived treatment context. Recall the two cases:

- (i) My father yells ‘you can win this!’ at the end of a race, and this positive suggestion causally affects the length of my running stride (the stride lengthens).
- (ii) A friend brings me my favorite nutritious meal while I am stuck at work, and the meal positively affects my mood (my productivity increases).

In these cases the intervention is not obviously aimed at promoting survival, or well-being. Recall that contexts of care involve a care-giver who intentionally participates in a suite of behaviors that meet a basic need directly, regardless of what kind of attendant attitude motivates them. But even if we stipulate that each of the individuals in these cases perceive these interventions to be directly aimed at promoting their survival or well-being, in neither case is there a recognized expert. The friend is not an expert on nutrition or physiology, nor is she perceived to be. The father is not an expert on the mechanics of locomotion, nor is he perceived. However, the cases can be modified:

- (iii) My father yells ‘you can make it!’ and this positive suggestion causally affects the length of my running stride (the stride lengthens). My father is an Olympic running coach and I perceive him to be expert on physiology.
- and
- (iv) A friend brings me my favorite nutritious meal while I am stuck at work and the meal positively affects my mood (my productivity increases). My friend is a certified life-coach and nutritionist, and I perceive her to be an expert in mood regulation.

Notice that once the cases are modified such that the friend and the father have expertise, and are recognized as having that expertise—they are recognized as being (1) in better epistemic standing than the lay-person, (2) empowered to pursue a wider range of intentional actions than a lay-person, and (3) possessing the skills to intervene at more fundamental metaphysical strata, then they would count as a treatment context. However, even in these modified cases, the interventions would be *standard treatments* rather than placebos.



Specifying this difference amounts to brings us to our second constraint—placebos must be distinguished from standard treatments.

## **VII. Standard Treatment**

Recall that there are two constraints on any theory of placebo. First placebos must be distinguished from *ordinary encouragement*. This can be met by introducing the notion of a treatment context. Placebos are administered in perceived treatment contexts whereas ordinary encouragement does not take place in perceived treatment contexts. Second, placebos must be distinguished from standard treatment. This can be met by introducing a principle—the resemblance principle—to be discussed in full in the next section. First, let us get a grip on what is generally meant by ‘standard treatment.’

Standard treatments always have an indication—a community endorsed reason for administration—for the condition they are intended to treat. What counts as a standard treatment is going to be indexed to a community, and justified by the community-endorsed theory over which the practitioner is recognized as an expert. Placebos have traditionally been contrasted with standard treatments by claiming that they are ‘inert’ whereas standard treatments are ‘active.’ However, placebos can also have very robust causal powers. Where, then, does the difference between placebo and standard treatments lie, if they can both be causally efficacious and both are administered in treatment contexts? In order to successfully distinguish placebos from standard treatments, I will introduce a principle that meets this constraint on extensional adequacy.

## **VIII. The Resemblance Principle**

Placebos have distinctly epistemic features. This yields a principle that satisfies the second constraint on a theory of placebo. The resemblance principle claims that placebos have a distinctive internal standard (a standard that something must meet by virtue of being the thing it is). Placebos (and not standard treatments) are evaluated against a distinctive

norm: they must *resemble* some other therapy. The resemblance principle is consistent with the placebo's crucial role as a scientific control in Randomized Controlled Trials (RCTs). In RCTs, the research goal is to assess the therapeutic benefit of an experimental treatment. In RCTs, new treatments are tested against either (i) a standard treatment or (ii) a placebo control. The role of the placebo qua scientific control is to isolate and minimize the effects of variables other than the independent variable (the new treatment) on the relevant dependent variable (changes in the health status of the research participants) while collecting new data—assuming that randomization is successful in achieving balance (in some sense) on all other variables that might affect the outcome. Thus, placebos should be as indistinguishable as possible from the standard treatment. If a placebo is different as in ways detectable to the investigator or research participant then the placebo has failed an internal standard. When a placebo is not matched with the experimental treatment it threatens the ability of researchers to properly mask their experiments. Masking can only occur when the patient and the relevant subset of researchers (particularly the ones administering the treatment) are unable, on the basis of their experience, to know whether the patient is the experimental intervention arm. Sometimes this means that a placebo will even need to be matched with the experimental treatment with regard to the experimental treatments' adverse reactions<sup>13</sup>. Standard treatments, of course, need not resemble any other treatment. The resemblance principle fully satisfies the second constraint. It sets a norm that is distinctive of placebos and not standard treatment, and so can rule out the modified cases we've already considered.

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<sup>13</sup> For example, if it is widely known that anti-depressants will cause dry mouth, a patient who gets dry mouth during a trial will be able to correctly infer that they are not in the placebo arm (if the placebo is not properly matched). Unfortunately, the composition of placebos is not always reported, and so it is hard to assess how often placebos fail to meet this internal standard. In "What's in Placebos- Who knows? Analysis of Randomized Controlled Trials," Golomb et al (2010) report that the composition of placebos (especially pills) are not always disclosed in placebo controlled trials (Golomb et al. 2010).

In (v), the father's intervention has a community-endorsed reason for being administered for the runner's condition. For example, in high-performance sports coaching, getting an athlete into a 'winning mindset' is a standard intervention, justified by a theory over which the father/running coach is perceived to be an expert. It is standard treatment, for that treatment context. In (vi) the worker suffers from hunger and needs help to promote her well-being. The intervention—providing a nutritious and favored meal—also has a community-endorsed reason for being administered for the worker's condition. Nutritionists know that cognitive functioning and our attentional resources (and so workplace productivity) is improved by providing balanced meals, and so this standard intervention justified by a theory over which the friend and nutritionist is perceived to be an expert. If these interventions were modified such that they *resembled* a standard treatment—perhaps the meal had no nutritional value, but *appeared* exactly like the meal it was designed to resemble—the increase in productivity would be explained by the nutritionist having administered a placebo.

It is constitutive of placebos, then, that they are administered in a perceived treatment context. This satisfies the first constraint. They are also expected to resemble a standard treatment for that context. This norm satisfies the second constraint. Taken together, they provide a positive account of clinical placebos. The condition that placebo administration must take place in perceived treatment contexts is entirely compatible with causal origins accounts. However, the resemblance principle is a competing account of how best to distinguish placebos from standard treatments.

## **IX. Causal origins views revisited**

On its own, defining placebo effects as those which originate from 'expectations' or 'incidental factors' cannot rule out cases of ordinary encouragement. There are everyday contexts in which effects generated by expectations or incidental factors are not placebo

effects. However, if we supplement those causal origins accounts with the addition of a perceived treatment context (as a condition for the administration of a placebo), then causal origins accounts can meet C1. No claims made by causal origins accounts conflict with, or are in tension with, the notion of a perceived treatment context as I've defined it.

However, this view diverges from causal origins accounts in how to meet C2—distinguishing placebos from standard medical treatments. Causal origins accounts meet this second constraint in one of two ways (depending on the nature of the view). I will first address causal origins accounts that focus on expectation driven effects, and then address causal origins accounts that focus on distinction between incidental factors and characteristic factors of an intervention.

Accounts of placebo that focus on expectation as the causal origin of placebo effects argue that placebo effects are those which are generated by some kind of mental state of the patient, although they are often silent as to the precise nature of that state. This is a natural thing to say when the contrast class of standard treatments are obviously very different from a mental state (e.g. ACL reconstruction, injections, pills, etc.). However, these views run into difficulty when trying to classify interventions in the domain of psychotherapy. That is, according to these views, there would be no way to distinguish between placebos and standard treatments in psychotherapy. What, for example, would be the difference between a standard treatment, and a placebo, if the standard treatment itself is an intervention that sets and manages the client's mental states? I take this to be an unwelcome result. The Resemblance Principle thus outperforms 'expectations' views because placebo psychotherapy can be distinguished from standard psychotherapy if, and when, the placebo psychotherapy is held to a norm such that it is better the more it resembles some other, extant, psychotherapeutic interventions. This will not be satisfying for those who want to classify *all* psychotherapeutic interventions as placebos, but anyone who is committed to the claim that

psychotherapeutic interventions which aim at setting and managing client mental states can be standard medical treatments (rather than placebos) will want some way to mark that difference, and the Resemblance Principle can do so.

For the second kind of causal origins account, there is a different story to tell. On these views, standard treatment effects originate from ‘characteristic factors’ of the intervention, and placebo effects originate from ‘incidental features.’ This distinction is determined by our best theory of medicine at the given time. That is, ‘characteristic factors’ generate standard medical effects (rather than placebo effects) because our best theory at time  $t$  predicts that the characteristic factor will be ameliorative for the relevant disorder. Our theories predict that penicillin will be ameliorative for bacterial infection and predict that the bulking agent in the pill will not. Thus, any effect that arises from the bulking agent is considered a placebo effect. It is the theory, then, that determines which effects are placebo effects, because it is the theory that demarcates which features are ‘characteristic’ and which are ‘incidental’. The theory change of course must be substantiated by a well-run trial. This is a core feature of Howick’s modification of Grünbaum’s conceptual scheme (Howick 2017).

In some cases, this theory-relativity of placebo effects gives us the right result. For example, olive oil capsules were once used as a placebo control for medicines that lower cholesterol. However, upon further investigation it was found that olive oil is actually ameliorative for high cholesterol and so olive oil capsules were ruled out as being a placebo (they were discovered to have ‘characteristic factors’ for ameliorating the relevant disorder). On this kind of causal-origins view, as soon as we are confronted with a placebo that has high efficacy (as substantiated by a well-run trial), our theory needs to be updated in order to accommodate that efficacy. And as a result, we are put under pressure to conceptually redefine the efficacious intervention as no longer a placebo, and instead a treatment with characteristic factors. This might be appealing to some: perhaps once an intervention is

efficacious to a sufficient degree it is no longer a candidate for being a placebo. However, I am committed to the claim that there is conceptual space for something can both be highly efficacious and still placeboogenic.

As an illustration, Burke, Kaptchuk, and Pascual-Leone have discussed the promising effects from placebo trans-cranial magnetic brain stimulation (TMS) for neuropsychiatric fields. The intervention is very elaborate. It involves:

...treatment cues from the elaborate TMS device being placed over the head, hands-on procedures to set up/calibrate the device, electromyogram recording and displaying of motor evoked potentials, a room full of sophisticated electrical equipment, prolonged interaction with a TMS technician, physician, and/or scientist, visiting an academic tertiary-care center or a specialized clinic for each treatment, and media attention highlighting the innovation of the treatment... The placebo arm in a TMS clinical trial contains all of the above with substitution of the active coil for a 'sham' coil (Burke, Kaptchuk, and Pascual-Leone 2019, 14).

Part of what makes placebo TMS so promising is that the effect sizes were large, and placebo TMS has the potential to affect the very same neural mechanisms as do standard treatments. There is strong evidence that “placebos meaningfully and relevantly modulate brain networks and neurotransmitter systems” (Burke, Kaptchuk, and Pascual-Leone 2019, 15). Of course, once an intervention’s incidental factors are found to be ameliorative for a patient’s target disorder in a well-run trial, our theory changes to include the incidental factor as a newly discovered characteristic factor. Let us hypothesize that placebo TMS will meet this benchmark, and the elaborate set-up above will be found to have incremental benefit for the patient’s target disorder in a well-run trial. On Howick’s modification of Grünbaum’s conceptual scheme there would now be no conceptual difference between TMS with the ‘active coil’ and TMS with the ‘sham coil’. They are both on a par because they are both now non-placebos. However, intuitions might reasonably go the other way. TMS with the sham coil might be conceptualized as a *highly effective* placebo, but a placebo nevertheless.

Howick's view has no room to accommodate or explain these countervailing reasonable intuitions. By contrast, the Resemblance Principle precisely captures why, even in cases where there is theory change, we might be reluctant to give up on the conceptualization that the intervention is still placebo.

There is a prevailing intuition that placebos are parasitic upon, or derivative from, 'standard medicine' in *some* way. I do not think this is an intuition that can be fully explained vis-à-vis relative differences in causal efficacy (where placebos are weak, and standard treatment is strong, and as soon as we find a 'placebo' to be strong we can no longer call it a placebo). Rather, I think it is a difference in the kinds of norms we use to evaluate the two. Placebos are derivative upon standard medicine because we evaluate it according to the Resemblance Principle. An intervention is re-classified from a placebo to standard treatment when we no longer hold it to that norm.

## **X. Treatment Contexts Revisited**

As was suggested in section III, the distinction between placebo administration and ordinary encouragement might not be sharp. The alternative is to say that there is a gradient between the two. To preserve the core motivation of the Social Positioning account, however, the gradient must be explained in terms of proximity or distance from perceived treatment contexts and not in terms of causal structure. To that end, I will argue that even if one holds the type of causal chain is fixed, an intervention will be a placebo or not depending on the context of administration. Consider the following cases:

- (i) A doctor has, for a long time, prescribed a patient a pain medication that tastes strongly of licorice (a flavor the patient enjoys). Aware of the long-term negative effects of this pain medication, however, the doctor begins to prescribe weaker solutions of this pain medication with the same strong flavor, until eventually the patient is completely weaned off of the medication and is taking simply licorice flavored water. The patient feels the same pleasant bodily relaxation when they take the water solution, as they do when they take the pain medication. When they take the solution, they are taking a placebo.

- (ii) The same patient, who enjoys the taste of licorice, eats a licorice candy independently of their treatment regime while they are at the movie theatre. They feel a sense of pleasure about their circumstances, and they feel the same bodily relaxation characteristic of taking their pain medication. The licorice candy is plausible a candidate for being a placebo but appears to be a borderline case.
- (iii) A different person (who also strongly enjoys the taste of licorice) has a habit of drinking licorice tea after doing yoga. Over several weeks, they unknowingly form an association between the positive bodily experience that comes from doing yoga and the taste of licorice. Independently of their workout regime, they eat a licorice candy while they are at the movie theatre. They experience the bodily relaxation characteristic of their post-yoga experience. Eating the licorice candy is best characterized as ordinary encouragement (akin to the kind of pleasure we experience when we get positive feedback or eat our favorite meal).

Cases (i)-(iii) have the same type of causal chain at work—that which arises from classical conditioning<sup>14</sup>. The intervention's status (as either placebo or not) is explained by the proximity and distance to perceived treatment contexts, rather than the underlying causal structure that explains the effect. In case (i) the subject takes herself to be in a treatment context, and in case (iii) the subject does not take herself to be in a treatment context. In case (i) the subject takes the solution with the intention to elicit an analgesic effect, and in case (iii) the subject eats the candy with the intention to simply enjoy herself at the theatre. In case (i) the association is formed in a treatment context, and in case (iii) the association is formed in a non-treatment context. Although the associative link between the improved bodily state and the taste of licorice is what is causally operative in both, it is the proximity to or distance from a treatment context that explains whether or not the causal chain is placebogenic.

The ambiguity about case (ii) I think arises as follows: we can ask whether the fact that the association was formed in a treatment context is sufficient for eating the licorice

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<sup>14</sup> Classical conditioning has been argued to be one method by which expectations are elicited in studies on placebo. For an example of trial design and theoretical discussion see (Montgomery and Kirsch 1997).



candy to count as taking place in a treatment context, as well as whether the subject is eating the licorice candy with the intention to produce an analgesic effect. Note that if the person in (ii) were intentionally taking the licorice candy because they knew they were classically conditioned and were going to experience pain relief, there would be a stronger case for ruling the candy a placebo. This accords with my argument that it is the perception of being in a treatment context that is important for an intervention's status, and (in section four) that self-administration can count as a treatment context. There are many such borderline cases<sup>15</sup>, and although it is not my goal to settle every dispute, I suggest that the framework I have presented can offer systematic explanations for *why* the cases are controversial or ambiguous.

## **XI. Conclusion**

A theory of placebo must meet two constraints—it must distinguish placebos from cases of ordinary encouragement and from cases of standard treatment. My proposal meets the first constraint by arguing that placebo administration must take place in perceived treatment contexts. A treatment context is one in which there is an intentional act to meet someone's basic need, and furthermore one of the parties is recognized as an expert in their domain: they are recognized as being (1) in better epistemic standing relative to the layperson, are (2) empowered to a wider range of intentional actions on the basis of their social role, and (3) possessing the skills to intervene at more fundamental metaphysical strata than the layperson.

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<sup>15</sup> Consider also a case presented to me by an anonymous reviewer: a gummy that appears to be a marijuana edible is given to someone prior to a music festival and they experience feelings of intoxication. Would this not be a placebo effect, despite not taking place in a treatment context? My argument is that the non-THC gummies do not strike us as a vehicle for ordinary encouragement (encouragement to enjoy ourselves, be less inhibited, etc.) because they are not displaced *far enough* from perceived treatment contexts. First, marijuana edibles—despite often being used for recreational purposes in this case—are in a strong sense an “over the counter” medication. Recreational use of such substances does not, I think, completely eliminate their therapeutic connotation.

The second constraint is met by introducing a principle by which standard treatments are distinguished from placebos: the resemblance principle. The resemblance principle claims placebos are held to a norm such that they are better if they *match* or *resemble* an existing treatment. Placebos should, ideally, be perceptually indistinguishable from a standard treatment. The Resemblance Principle offers a different way to distinguish placebos from standard treatments as compared to causal origins accounts.

Taken together, the notion of a perceived treatment context and the Resemblance Principle offer an account of clinical placebos from a social epistemological perspective: the Social Positioning Account of clinical placebos. An analysis that focuses on the epistemic states of the individuals in the context of administration can provide an explanation as to why we conceptualize many ordinary occurrences in our everyday lives as non-placebos, and reveals an interesting feature of health-related practices: the norms against which we evaluate an intervention can play a constitutive role in determining what kind of intervention it is.

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