Social Construction, Grounding, and Interventionism

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Abstract

Several philosophers have used grounding to formulate accounts of social construction. As I show, those accounts face a serious problem: when combined with an independently plausible assumption about the nature of sociality, those accounts contradict standard principles of grounding. After explaining why, I propose an alternative account of social construction which draws on interventionist approaches to causal and non-causal explanation. Basically, the account connects social construction to the sorts of structural equation models that are used in special sciences like feminist sociology, economics, psychology, and more.

1 Introduction

Relations of social construction connect elements of the social world to whatever generates them (Barnes, 2016; Collins, 2019; Haslanger, 2012; Mallon, 2017). Many facts, properties, objects, groups, kinds, and so on, do not result from the non-social, natural world. Those facts, properties, objects, groups, kinds, and so on, are generated by society. They are socially constructed.

For example, consider the fact that Jan is a woman. This fact does not derive from biological facts about Jan's reproductive organs, chromosomes, or some such things. The fact

about Jan's womanhood is, instead, socially constructed. So this fact derives from features of Jan's social environment: perhaps relations of oppression and privilege (Haslanger, 2000), or Jan's political self-conception (Bettcher, 2009), or patterns of conferral (Ásta, 2018).

Recently, there has been growing interest in the metaphysics of social construction (Barnes, 2014; Epstein, 2015; Haslanger, 2000; Witt, 2011). Many interesting questions concern the metaphysics of the social construction of gender, race, groups, economics, and so on. Under what conditions does social construction occur? How does social construction establish the sociality of various bits of the social world? And more generally, what is the nature of social construction? What is it for something to socially construct something else?

To answer questions like these, several philosophers have recently appealed to grounding (Griffith, 2018; Ritchie, 2020; Schaffer, 2017). For as it turns out, there are many similarities between grounding and social construction. Both are generative, explanatory relations, for example; and both are relations of dependence.

In this paper, I argue that these ground-theoretic accounts of social construction face a problem. As I show, given a very plausible principle about the social world, those accounts contradict standard grounding principles. So there is more tension, between grounding and social construction, than has yet been appreciated.

In place of ground-theoretic accounts, I propose an alternative account—call it 'Social Interventionism'—of social construction. Basically, according to Social Interventionism, social construction is a matter of certain sorts of dependencies—counterfactual dependencies, counterpossible dependencies, and dependencies of other sorts—obtaining. The relevant dependencies are best described using notions drawn from interventionist approaches to causal and non-causal explanation: in particular, structural equation models. These models are used in feminist sociology, economics, psychology, and other special sciences, to explain complex relationships among social phenomena. And as I argue, these models can also be used to provide an illuminating account of the metaphysics of social construction.[1]

[1]For lack of space, I do not compare Social Interventionism to non-ground-theoretic accounts of social construction, such as those proposed by Haslanger (2012) and Ásta (2018). But put briefly: Social Interven-

In Section 2, I present the ground-theoretic account of social construction on which I focus here. In Section 3, I present the problem that this account faces. In Section 4, I review three different responses to the problem, and ultimately advocate the third. In Section 5, I formulate Social Interventionism, and I summarize one of its most attractive features. Finally, in Section 6, I discuss some more attractive features of Social Interventionism.

Before continuing, it is worth flagging two major themes that arise throughout this paper. First, social construction is extremely, extremely complex. It is so complex, in fact, that it can (i) loop, and (ii) form infinite descending chains. Ground-theoretic accounts do not accommodate this complexity, because standard grounding principles rule out both loops and chains that descend without bound. Social Interventionism, in contrast, accommodates this complexity: it allows for both loops and infinite descending chains. So Social Interventionism, unlike ground-theoretic accounts, respects the complex character of the social world.

Second, metaphysical accounts of social construction would benefit from paying more attention to empirical science. As I discuss in detail later, many empirical models in feminist social science use structural equation models to describe the deeply complex dynamics of the social world. For instance, some such models capture relationships between public conceptions of feminist ideology and various normative issues connected to racial oppression, sex education, body dissatisfaction, teen suicide, and more (Harnois, 2005; Noar & Morokoff, 2002; Fingeret & Gleaves, 2004). These relationships often feature feedback loops: the social construction relation loops back upon itself. And while Social Interventionism is consistent with feedback loops like those, ground-theoretic accounts of social construction are not. Now, of course, this represents a serious point in favor of Social Interventionism. But it also represents something more general than that: it shows that metaphysicians studying social construction stand to benefit enormously from engaging with contemporary science.

tionism is compatible with those other accounts, because those other accounts are consistent with structural equation models of social construction.

2 Social Construction as Grounding

In this section, I summarize the grounding approach to social construction. To start, I explain some key features of the social construction relation. Then I explain some key features of grounding. Finally, I present the grounding approach.

Before continuing, it is worth introducing some terminology. Many different bits of reality, drawn from many different ontological categories, are socially constructed: facts can be socially constructed, as can properties, objects, groups, kinds, and more. In what follows, I use the term 'item' to describe all of these. So facts count as items in my sense, as do properties, objects, groups, kinds, and so on.

There are many different relations of social construction, corresponding to the many different ways that social phenomena generate various items (Haslanger, 2012, p. 87-88; Thomasson, 2003, p. 590). There is 'constitutive social construction': roughly put, this is the relation that obtains between (i) any given social item x, and (ii) whatever makes x the item that it is. There is also 'causal social construction': roughly put, this is the relation that obtains between (i) any given social item x, and (ii) whatever social items are among x's causes. Following the literature on social construction and grounding, in this paper, I generally focus on the relation of constitutive social construction in particular.[2]

Three features of constitutive social construction, in addition to the generative feature just mentioned, are worth emphasizing.[3] First, constitutive social construction is explanatory. In particular, if one item constitutively socially constructs another item, then what it is to be the latter is explained—in large part—by the former. For example, suppose that facts about oppression constitutively socially construct the fact that Jan is a woman.[4] Then the

[2]In Section 5, however, I analyze a more general relation of social construction, which contains constitutive social construction as a sub-relation.

[3]These features are discussed, in more detail, in (Haslanger, 2012; Jenkins, 2016; Mikkola, 2017; Schaffer, 2017).

[4]To keep this example concrete, throughout this paper, I describe the fact that Jan is a woman as being socially constructed by, and also grounded in, facts about oppression. But nothing substantial turns on this particular conception of the social constructors, or the grounds, of facts about gender. The reader is welcome to substitute their own preferred conception—of what socially constructs, or grounds, Jan's womanhood—into

former facts explain why the latter fact obtains.

Second, constitutive social construction is a dependency relation. In particular, if one item constitutively socially constructs another, then the latter depends on the former. For example, again, suppose that facts about oppression constitutively socially construct the fact that Jan is a woman. Then the fact about Jan depends upon the facts about oppression.

Third, constitutive social construction exhibits a certain contingency, and therefore, supports ameliorative projects. In particular, if one item constitutively socially constructs another, then the former—and so the latter—is generally not a necessary feature of reality. So we have some degree of control over the item in question. And so concepts associated with that item can be revised, for the purposes of social justice. For instance, once again, suppose that facts about oppression constitutively socially construct the fact that Jan is a woman. The facts about oppression are highly contingent: oppression is not a necessary feature of reality. So the fact that Jan is a woman, in virtue of being oppressed in various ways, is unnecessary. And so our concept of womanhood can be revised—perhaps so that the new concept centrally involves the notion of oppression—in order to fight gender injustice.

Now for grounding. Roughly put, grounding connects the more fundamental to the less fundamental. The connection is generative: the more fundamental generate the less fundamental, in cases of grounding. In addition, grounding is a kind of dependency: less fundamental items depend on the more fundamental items in which they are grounded. And grounding is explanatory: various features of the less fundamental are explained by the more fundamental.

For example, consider the fact that electrons are negatively charged. According to standard grounding principles, the fact that electrons are negatively charged grounds the fact that either electrons are negatively charged or grass is green. So the fact about electrons is more fundamental than the fact about electrons and grass. In addition, the latter fact is generated by, and dependent on, the former fact. And the former fact explains why the

the examples to come.

latter fact obtains.

There are many different regimentations of grounding. Following Rosen (2010), I take grounding to be a relation between facts.[5] So grounding relates more fundamental facts to less fundamental facts. If some facts ground some other facts, then the former generate the latter. And if some facts ground some other facts, then the former explain why the latter obtain.[6]

According to standard accounts, the grounding relation satisfies a number of formal conditions; here, I focus on two. First, grounding is well-founded. To put it more precisely, grounding satisfies the principle below.

Well-Founded

There is no infinite sequence of pairwise distinct facts X_1, X_2, X_3, ... such that X_1 is grounded in X_2, X_2 is grounded in X_3, ...[7]

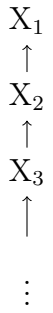
In other words, there are no chains of grounding that extend lower and lower without bound. The following structure, that is, never obtains.[8]

[5]Some take grounding to be a sentential connective (Fine, 2010). Others take grounding to be a relation that can obtain between basically any items at all: facts, objects, properties, and more (Schaffer, 2009). These other formal regimentations of grounding could be used instead of Rosen's, in the arguments to come. Those argument would just need to be rephrased.

[6]In what follows, whenever I write that one item grounds another item, I mean that the former partially grounds the latter.

[7]The facts in this sequence are 'pairwise distinct' just in case for all natural numbers i and j such that $i \neq j$, X_i is numerically distinct from X_j.

[8]For simplicity, in this paper, I focus on the version of a well-foundedness principle given by Well-Founded. There are other well-foundedness principles in the literature, which capture the relevant intuition in slightly different ways; for some examples, see (Rabin & Rabern, 2016). Those other well-foundedness principles, when combined with the principles to be discussed shortly, may also generate problems ground-theoretic accounts of social construction; it depends, on course, on exactly how those well-foundedness principles are formulated.



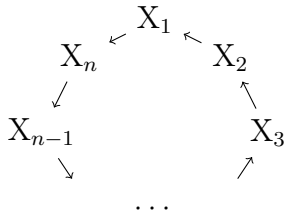
So according to Well-Founded, all chains of grounding eventually bottom out somewhere.

Second, grounding is acyclic. To put it more precisely, grounding satisfies the principle below.

Acyclic

There is no finite collection of facts X_1, X_2, X_3, ..., X_n, such that X_1 is grounded in X_2, X_2 is grounded in X_3, ..., X_{n-1} is grounded in X_n, and X_n is grounded in X_1.

In other words there are no cycles of grounding. The following structure, that is, never obtains.



So according to Acyclic, sequences of grounding never loop back on themselves.

Constitutive social construction and grounding seem, pre-theoretically at least, somewhat similar. Both are generative, explanatory relations of dependence. Furthermore, grounding is compatible with the kind of contingency that features in constitutive social construction: grounders need not be necessary, and so the grounded need not be necessary either.

Because of similarities like these, grounding has been used to formulate accounts of constitutive social construction. Though many different accounts have been proposed, they all endorse a version of the principle below.

Social Grounding

For all facts X and Y, X constitutively socially constructs Y if and only if

(i) X is a social fact, and

(ii) X grounds Y.[9]

In other words, to be constitutively socially constructed is just to be grounded in a social fact. Constitutive social construction is a special kind of grounding: namely, grounding where the grounders are themselves social.

For example, consider the case of Jan once more. Let X be an extremely complicated fact about relations of privilege and oppression in society. Let Y be the fact that Jan is a woman. Then X is a social fact, since it is about social relations of privilege and oppression. So (i) holds. In addition, plausibly, X grounds Y: the complicated fact about privilege and oppression, that is, grounds the fact that Jan is a woman. So (ii) holds. And so according to Social Grounding, X constitutively socially constructs Y: the fact that Jan is a woman, in other words, is constitutively socially constructed by the complicated fact about privilege and oppression.

There is much to like about Social Grounding. It seems to get a lot of cases right, like the case involving Jan. It accounts for the similarities between constitutive social construction and grounding: both are generative, explanatory relations of dependence—compatible with certain kinds of contingencies—because one is a special case of the other. And it forges a

[9]For endorsements of Social Grounding, or principles like it, see (Griffith, 2018, p. 395; Ritchie, 2020, p. 407; Schaffer, 2017, p. 2454); and for more investigations of the relationship between grounding and social metaphysics more generally, see (Bernstein, 2020; Epstein, 2014; 2015). In this paper, the differences between Social Grounding and those other principles are largely irrelevant. Similar issues could be raised for several of those other principles: the issues would just need to be rephrased in various ways. In Section 4.3, I show how the same sorts of issues arise for two of those other principles in particular.

connection between two prominent relations in the feminist and metaphysics literatures.

3 The Structural Problem

There is a problem with Social Grounding, however. When combined with an independently plausible principle about the nature of the social, Social Grounding implies that either grounding is not well-founded or grounding is not acyclic. In other words, given the independently plausible principle, Social Grounding contradicts one of the two standard principles of grounding—Well-Founded and Acyclic—from Section 2. Call this the 'structural problem', since as will become clear, the problem derives from certain sorts of grounding structures.

The independently plausible principle is below. It says, very roughly put, that to be social is to be constitutively socially constructed.

Sociality

For every social fact X, X is constitutively socially constructed.

Social facts, in other words, are constitutively socially constructed facts.

Sociality is extremely plausible. For example, as many have argued, the social fact about Jan—that Jan is a woman—is constitutively socially constructed. Similarly for facts about relations of privilege and oppression: these facts are constitutively socially constructed too, by patterns of human behavior. And similarly for social facts about race, disability, sexual orientation, economics, politics, and all the rest.

The basic idea, behind Sociality, is this: constitutive social construction is what demarcates social facts from non-social facts. And that seems reasonable. It is reasonable, in other words, to think that the distinction between social and non-social facts corresponds to the distinction between facts which are constitutively socially constructed and facts which

are not. The social facts are, intuitively, all and only the constitutively socially constructed facts. And that is what Sociality implies.

Note that Sociality is compatible with the extreme complexity of the social world. For Sociality just says that every social fact is socially constructed by something or other. The social constructors—the items that social construct the social facts—can be as varied and heterogeneous as the social facts are. Facts about social psychology, economic incentives, oppression and privilege, in-group and out-group dynamics, and more, socially construct the highly complex array of social facts that obtain around us.

One might object to Sociality as follows. Consider the fact that synthetic plastic exists. This fact is not socially constructed: rather, it is generated by facts about the molecular compounds out of which synthetic plastic is comprised. Yet the fact that synthetic plastic exists, one might claim, is social: for without society, synthetic plastic would never have been created.

The problem with this objection is straightforward: the fact that synthetic plastic exists is not social. That is a physical fact about the existence of various molecular compounds. The fact that we have a concept of synthetic plastic is, of course, social. Similarly, the fact that we use the words 'synthetic compounds' to reference those various molecular compounds is social too. But the existence of those various molecular compounds is not, itself, a social fact. And so Sociality does not face any problem connected to the existences of items like synthetic plastics.

Here is another way that one might object to Sociality. In addition to constitutive social construction, there are other social construction relations in which social facts stand. For example, some social facts are causally socially constructed. And social facts like that, one might claim, are not constitutively socially constructed too. So not all social facts are constitutively socially constructed.

There are at least two different problems with this objection, however. First, on standard accounts of causation, facts do not cause other facts. Only events stand in the causal

relation; facts do not. So by claiming that causation relates facts, this objection presupposes a non-standard account of the causal relation.

Second, and more problematically, this objection seems to presuppose that if some item is causally socially constructed, then it is not constitutively socially constructed as well. But that is false. To see why, suppose that some facts are indeed causally socially constructed in some way or other. It does not follow, from this alone, that these facts are not constitutively socially constructed: plenty of facts may be causally socially constructed and constitutively socially constructed both. For example, consider the social fact that the U.S. experienced a recession in 2020. Plausibly, this fact is causally socially constructed, at least in part, by social facts about hiring, supply and demand, the stock market, and so on. But this fact is constitutively socially constructed too: facts about what it is to be a recession, for instance, constitutively socially construct it. So causal social construction does not preclude constitutive social construction. And so to argue against Sociality, it is not enough to observe—as the above objection does—that some social facts are causally socially constructed. For those social facts are, plausibly, constitutively socially constructed too; and that is consistent with what Sociality says.

Now for the structural problem. As a simple proof shows, Social Grounding and Sociality jointly imply that either (i) there are infinite descending chains of grounding,[10] or (ii) there are cycles of grounding. If (i) holds, then Well-Founded is false. If (ii) holds, then Acyclic is false. So those who endorse Social Grounding and Sociality must reject a standard grounding principle: either that grounding is well-founded or that grounding is acyclic.

The proof is as follows. Let X_1 be any social fact. Then by Sociality, X_1 is constitutively socially constructed. So by Social Grounding, there is a social fact X_2, such that X_2 grounds X_1. Since X_2 is a social fact, Sociality and Social Grounding jointly imply that for some social fact X_3, X_3 grounds X_2. The pattern continues: a similar line of reasoning shows that some social fact X_4 grounds X_3, some social fact X_5 grounds X_4, and so on.

[10] Schaffer argues that a similar sort of regress—though one based on anchoring—applies to certain theories too (2019, p. 753).

The grounding relations among the sequence of facts X_1, X_2, X_3, and so on, contradict the conjunction of Well-Founded and Acyclic. To see why, note that one of two possibilities must obtain: either each fact in the sequence is distinct from each other fact in the sequence, or some fact in the sequence is repeated twice. If the former, then the sequence contradicts Well-Founded. If the latter, then the sequence contains a cycle of grounding, and so contradicts Acyclic.[11]

In summary, the structural problem is this: Sociality and Social Grounding jointly contradict the conjunction of Well-Founded and Acyclic. As mentioned earlier, both Well-Founded and Acyclic are standard grounding principles. So the structural problem is that Sociality and Social Grounding are incompatible with standard principles concerning the structure of ground.

4 Responses to the Structural Problem

There are roughly three different responses to the structural problem. The first rejects one of either Well-Founded or Acyclic, the second rejects Sociality, and the third rejects Social Grounding. In this section, I discuss each response; and ultimately, I advocate the third.

Before continuing, however, it is worth clarifying my goals here. Though I will eventually advocate a version of the third response, my main goal is not to push any particular response over any other. My main goal is simply to illustrate some issues that each response faces. In what follows, I discuss the challenges that arise for each response, and then explain

[11] Here are the formal details. The derived sequence X_1, X_2, X_3, ..., satisfies exactly one of the following two conditions.

(1) For all natural numbers i and j such that $i \neq j$, X_i is numerically distinct from X_j.

(2) For some natural numbers i and j such that $i \neq j$, X_i is identical to X_j.

If (1) holds, then Well-Founded is false: for the X_1, X_2, X_3, ... form an infinite sequence of pairwise distinct facts such that X_1 is grounded in X_2, X_2 is grounded in X_3, ... If (2) holds, then Acyclic is false: for the finite collection of facts X_i, X_{i+1}, ..., X_{j-1}, X_j—assuming, without loss of generality, that $i \leqslant j$—is such that X_i is grounded in X_{i+1}, X_{i+1} is grounded in X_{i+2}, ..., and X_{j-1} is grounded in X_j which is just X_i.

why I will pursue the third.

4.1 First Response

The first response to the structural problem is straightforward: simply accept the falsity of either Well-Founded or Acyclic. Perhaps Well-Founded is false: there can be infinite chains of grounding that never bottom out. Or perhaps Acyclic is false: grounding can be cyclical.

As it happens, both Well-Founded and Acyclic have been questioned in the literature. Dixon, for instance, rejects Well-Founded: ultimately, Dixon suggests adopting a similar but importantly different principle instead (2016, pp. 446-447). Jenkins rejects the irreflexivity of grounding (2011, pp. 267-269); and as a simple proof shows, if grounding is not irreflexive then Acyclic is false.

The vast majority of grounding theorists, however, accept both Well-Founded and Acyclic. In particular, it is quite common to endorse both Well-Founded and two principles—namely, the irreflexivity and transitivity of grounding—from which Acyclic can be derived (Cameron, 2008, p. 13; Fine, 2010, pp. 104-105; Rabin & Rabern, 2016, pp. 351-355; Schaffer, 2009, p. 376; 2016, p. 196).[12] So for many grounding theorists, rejecting one of Well-Founded or Acyclic would be extremely costly.

There is another issue with the first response to the structural problem: it conflicts with a simple, attractive analysis of relative fundamentality. The analysis, in rough outline, is as follows: for all facts X and Y, X is more fundamental than Y if and only if X grounds Y. When combined with the first response, this analysis—call it the 'grounding analysis' of relative fundamentality—implies that either

(i) relative fundamentality is not well-founded, in which case there is no fundamental level of reality, or

(ii) relative fundamentality is not acyclic, in which relative fundamentality can 'loop'.

[12]It is also quite common to endorse Acyclic—or the two principles which imply it—and to insist on remaining neutral with respect to Well-Founded (Bennett, 2017, p. 122; Rosen, 2010; p. 116).

So we face a forced choice: either accept the first response, and so either accept (i) or accept (ii) or reject the grounding analysis, or reject the first response, and so reject both (i) and (ii) while accepting the grounding analysis.

Between those options, the latter is best. The grounding analysis is quite simple and attractive; so that analysis, or some close variant of it, should be endorsed by fans of grounding. In addition, at this stage of inquiry at least, it seems premature to claim that reality has no fundamental level. And it is not intuitively clear what a 'loop of relative fundamentality' would even be. So overall, it seems best to reject both (i) and (ii) above, accept the grounding analysis, and therefore reject the first response to the structural problem.[13]

4.2 Second Response

Now for the second response to the structural problem: reject Sociality. According to this response, some social facts are not constitutively socially constructed. Nothing constitutively socially constructs these social facts.

This response faces at least two issues. The first stems from additional assumptions which must be made, in order for this response to successfully avoid the structural problem. The second stems from a certain explanatory challenge that this response generates. Let us consider each of these in turn.

The first issue is straightforward: in order to avoid the structural problem entirely, the second response is not enough. Of course, if Sociality is false, then the proof in Section 3 is invalid. But the structural problem could still arise. For as a simple proof shows, the falsity of Sociality is compatible with both

[13]In fact, there are even stronger—though more complicated—reasons to reject the first response. The literature contains proposed revisions to the simple analysis of fundamentality given above; for instance, see an analysis which Raven proposes (2016). Those analyses, such as Raven's, are designed to accommodate the possibility of infinite descending chains of grounding in worlds where some entities still count as fundamental. Because of that, one might think that those analyses motivate accepting the first response, and so rejecting the grounding analysis. But that is not so. For as it turns out, once certain details are filled in, those analyses imply the following: if Social Grounding and Sociality hold, then social facts are fundamental. And that implication is quite unattractive.

(i) infinite descending chains of facts, each of which constitutively socially constructs the one before it, and

(ii) finite cycles of facts, each of which constitutively socially constructs the next fact in the cycle.

Given Social Grounding, (i) implies that Well-Founded is false, and (ii) implies that Acyclic is false. So in order to avoid the structural problem, it is not enough to merely reject Sociality. Two additional assumptions must be made. In particular, it must be assumed that both (i) and (ii) do not obtain. It must be assumed, in other words, that there are no infinite descending chains of facts, each of which constitutively socially constructs the one before it. And it must be assumed that there are no finite cycles of facts, each of which constitutively socially constructs the next.

Both assumptions are costly, however. The costs of the second are particularly clear, so I will focus on those. For arguably, constitutive social construction can be cyclic; and the second assumption contradicts that. One example, discussed by Mikkola, concerns the fact that a piece of paper counts as money (2015, p. 788).[14] This fact is constitutively socially constructed by facts about peoples' attitudes concerning that piece of paper. In addition, the fact about peoples' attitudes is constitutively socially constructed by, among other things, the fact that the piece of paper counts as money. Another example, discussed by Haslanger, concerns the social organization of resources (2016, pp. 126-127). The fact that cheese counts as food—rather than as, say, spoiled milk—constitutively socially constructs the fact that cheese figures in culturally shared concepts in particular ways. In addition, the latter fact about culturally shared concepts of cheese constitutively socially constructs the former fact that cheese counts as food. More generally, the best explanations of social phenomena are often holistic and interdependent (Barnes, 2014; Haslanger, 2016; Witt, 2011). And it is extremely plausible to suppose that these holistic, interdependent explanations track cycles of constitutive social construction.

[14]Mikkola uses this case to argue that grounding is not asymmetric. The same basic points can be used to argue that constitutive social construction is not asymmetric—and so not acyclic—too.

An aside: it is less clear whether the first assumption—that there are no infinite descending chains of facts, each of which constitutively socially constructs the one before it—is all that costly. There is not much discussion over whether constitutive social construction is well-founded. But the following example suggests not. Let t_1 and t_2 be times such that $t_1 < t_2$, where '$<$' represents the relation of one time being earlier than another. Let F_{t_1,t_2} be a fact describing the U.S. GDP at every moment from t_1 to t_2. Then let t_3 and t_4 be times such that $t_1 < t_3 < t_4 < t_2$. Let F_{t_3,t_4} be a fact describing the U.S. GDP at every moment from t_3 to t_4. Continuing in this way generates a nested sequence of time intervals, and corresponding facts of the form $F_{t_i,t_{i+1}}$ which describe the U.S. GDP at every moment from t_i to t_{i+1}. Plausibly, each fact $F_{t_{i+2},t_{i+3}}$ constitutively socially constructs—at least partially—the fact $F_{t_i,t_{i+1}}$, since the range of times which figures in $F_{t_i,t_{i+1}}$ contains the range of times which figures in $F_{t_{i+2},t_{i+3}}$ as a subregion. Since all these facts are different, it follows that the constitutive social construction relation is not well-founded in the actual world.

Now for the second issue which this response, to the structural problem, faces. The issue can be phrased as an explanatory challenge: which social facts are constitutively socially constructed and which social facts are not? Sociality, of course, offers a simple, attractive, unified answer to this challenge: all social facts whatsoever are constitutively socially constructed. So those who reject Sociality must answer this challenge in another way.

That is, however, extremely hard to do. For it is not clear what would distinguish social facts which are constitutively socially constructed from social facts which are not. If constitutive social construction is not responsible for the social nature of certain social facts, then what is? In virtue of what are those social facts social? What accounts for the socialness of social facts?

These questions are notoriously difficult to answer. As many have argued, it is extremely difficult—if not impossible—to formulate non-circular accounts of the social (Epstein, 2015, p. 102; Haslanger, 2016, p. 125; Ritchie, 2020, p. 404). And even circular accounts are hard

to formulate: Sociality is one such circular account,[15] but it is unclear what other circular accounts there might be. Those who reject Sociality fact the difficult task of coming up with some sort of replacement account of the social.

For all these reasons, I do not endorse the second response to the structural problem. In order for the second response to succeed, it must be supplemented with questionable assumptions about the constitutive social construction relation: namely, that the constitutive social construction relation is acyclic and well-founded. Moreover, the second response faces a difficult explanatory challenge: what exactly distinguishes those social facts which are constitutively socially constructed from those social facts which are not?

None of this is to say, of course, that the second response is a non-starter. Some might be willing to endorse the questionable assumptions, and also supply an answer to the explanatory challenge. That is definitely worth pursing in other work.

4.3 Third Response

Finally, here is the third response to the structural problem: reject Social Grounding. Perhaps some other ground-theoretic account of constitutive social construction could be adopted in its place. Or perhaps grounding should not be used to account for constitutive social construction at all.

Ultimately, I will suggest the latter: it is worth pursing an account of constitutive social construction which does not appeal to grounding. For as I explain below, like Social Grounding, other ground-theoretic accounts of constitutive social construction also face a version of the structural problem. For lack of space, I cannot discuss all such accounts here. But it is worth looking at two particularly prominent ones: an account due to Schaffer, and an account due to Griffith. It can be shown that both accounts, when supplemented with

[15]Sociality is circular because it is a necessary condition, for something to be a social fact, which invokes something social: namely, the relation of constitutive social construction.

principles like Sociality, imply that either Well-Founded or Acyclic is false.[16]

To start, consider Schaffer's account: X is constitutively socially constructed if and only if X is grounded in distinctive social patterns (2017, p. 2454).[17] Take any constitutively socially constructed item X_1. By Schaffer's account, X_1 is grounded in some distinctive social pattern X_2. Social patterns are, plausibly, constitutively socially constructed themselves; this claim is analogous to, though strictly speaking weaker than, Sociality. So X_2 is constitutively socially constructed. Therefore, by Schaffer's account, X_2 is grounded in some distinctive social pattern X_3. Repeating the above argument generates a sequence of constitutively socially constructed items X_1, X_2, X_3, ..., each of which grounds the one before it. It follows, of course, that Well-Founded and Acyclic cannot both hold: at least one is false.

Now consider Griffith's account: for each subject S and social kind K, $[S \text{ is a } K]$ is constitutively socially constructed if and only if $[S \text{ is a } K]$ is grounded in particular features of social reality (2018, p. 395).[18] Take any constitutively socially constructed fact of the form $[S_1 \text{ is a } K_1]$. By Griffith's account, this fact is grounded in particular features of social reality. Griffith describes, in rough outline, what those particular features might be: repeated patterns of human interaction, networks and structures, individual or collective responses to S_1's body, and so on. Plausibly, among all the particular features of social reality which help ground $[S_1 \text{ is a } K_1]$, at least one such feature is—or is itself grounded in—a fact of the form $[S_2 \text{ is a } K_2]$.[19] Since $[S_2 \text{ is a } K_2]$ is a particular feature of social reality, plausibly, $[S_2 \text{ is a } K_2]$

[16]Another ground-theoretic account, due to Ritchie (2020), may avoid these issues. For on Ritchie's account, grounding is sufficient—but not necessary—for constitutive social construction. So Ritchie's account does not face the structural problem. There is another reason, however, to dislike Ritchie's account: it is disjunctive, since it posits three different sufficient conditions—one based on grounding, one based on necessity, and one based on definitions—for social construction.

[17]Some accounts say what it is for a given X to be constitutively socially constructed, full-stop. Other accounts say what it is for a given X to be constitutively socially constructed by a given Y. Both Schaffer and Griffith propose accounts of the former sort. Social Grounding, of course, is an account of the latter sort. For present purposes, however, this difference—between Social Grounding and the accounts proposed by Schaffer and Griffith—does not matter, since the structural problem arises for all versions of these accounts.

[18]To keep things simple, I adopt a slight rephrasing of Griffith's original account. The analysandum in Griffith's original account is this: S is constitutively socially constructed as a K. In the rephrased account, I treat "S is constitutively socially constructed as a K" as equivalent to "$[S \text{ is a } K]$ is constitutively socially constructed." This rephrasing is not necessary, for the argument to come. It just makes that argument simpler to state.

[19]For example, if $[S_1 \text{ is a } K_1]$ is the fact that Jan is a woman, then $[S_2 \text{ is a } K_2]$ might be the fact that

is a social fact. So by Sociality, [S_2 is a K_2] is constitutively socially constructed. Repeating the above argument generates a sequence of constitutively socially constructed facts [S_1 is a K_1], [S_2 is a K_2], [S_3 is a K_3], and so on, each of which grounds the one before it. Once again, it follows that either Well-Founded or Acyclic does not hold.

As these examples show, the structural problem is not some idiosyncratic feature of Social Grounding. The structural problem arises for several different accounts of constitutive social construction in which grounding plays a central role. This does not show, of course, that the structural problem arises for every possible ground-theoretic account of constitutive social construction. But the problem does arise for some prominent ones.

To summarize: there is tension between grounding and constitutive social construction. Several different accounts of constitutive social construction, based on grounding, face the structural problem. So it is worth pursuing an account of constitutive social construction which avoids this tension. It is worth pursing an account of constitutive social construction, that is, which does not invoke grounding at all.

5 Social Interventionism

In this section, I formulate an account of social construction which avoids the problems discussed above. The account is based on notions drawn from the interventionist approach to causal and non-causal explanation. So to start, I summarize that approach. Then I present the account of social construction. Finally, I discuss a striking—but extremely attractive—feature of the account: it concerns social construction relations in general, rather than just constitutive social construction in particular.

Here is the basic idea behind interventionist approaches to causal and non-causal explanation. Causal relationships, and explanatory relationships, can be understood in terms

Patricia—one of Jan's coworkers—is a woman too. For the fact about Jan is, plausibly, at least partially grounded in patterned structures of human behavior. And plausibly, some of those patterned structures are at least partially grounded in gender facts about people like Patricia.

of counterfactuals. Those counterfactuals, in turn, can be represented by structural equation models. Roughly put, structural equation models are formal frameworks for representing the way in which some propositions make a difference to whether or not some other propositions obtain. Or as it is sometimes put: structural equation models can be used to represent how interventions on some states of the world—changing whether or not those states occur, that is—affect other states of the world.[20]

A quick preview of what is coming: as I argue later, all these notions—counterfactuals, interventions, and so on—can be used to illuminate the metaphysics of the social construction relation. And this is not particularly surprising. After all, social construction exhibits the kind of generative, explanatory dependencies that counterfactuals so often track. Furthermore, there is clearly a close connection between social construction and the notion of an intervention: one of the main goals, of using social construction to explore the social world, is to identify which parts of that world need to be changed—that is, to be intervened upon—in order to achieve social justice. So it makes sense to think that ideas underlying interventionist approaches, to causal and non-causal explanation, might support an attractive analysis of social construction. And as I will argue, they do.

Before getting to that, however, some preliminaries about structural equation models are in order. Structural equation models represent counterfactuals, and so causal and explanatory relationships, using four bits of formalism: variables, values that variable may take, values that variables actually take, and functional equations relating the variables. For example, suppose that Susie throws a rock at a window, and the window shatters. A structural equation model represents the causal, counterfactual relationship between the shattering and the throwing. One variable's values represent the occurrence or non-occurrence of the throw. Another variable's values represent the occurrence or non-occurrence of the window's shattering. A functional equation relates these variables, and so formally represents two facts

[20]For a detailed discussion of interventionist accounts of causation, see (Halpern & Pearl, 2005a; Woodward, 2003). For detailed discussions of interventionist accounts of explanation, see (Halpern & Pearl, 2005b; Woodward & Hitchcock, 2003a; 2003b).

about the counterfactual relationships at issue: the window would have shattered if Susie had thrown a rock, as indeed she did; and if Susie had not thrown a rock then the window would not have shattered.

Two features of structural equation models are worth emphasizing here. First, in addition to causal explanatory relations, structural equation models can be used to represent non-causal explanatory relations as well (Schaffer, 2016; Wilhelm, 2021a; 2021b; Wilson, 2018). For non-causal explanatory relations also exhibit counterfactual—or counterlogical, or counteridentical—dependencies. And those dependencies can be captured by the formalism of structural equations.

Second, certain sorts of structural equation models—which are called 'non-recursive'—can be used to represent cyclical dependencies.[21] In these models, functional equations describe how one variable's values affect another variable's values, which in turn affect another variable's values, which in turn affect ..., which in turn affects the first variable's values. And these models are not mere bits of formalism, unconnected to the real, empirical world: these models are used used throughout the special sciences to describe the cyclical dependencies of various feedback loops.[22]

So the basic ideas, of the interventionist approach to causal and non-causal explanation, extend to many other domains. Those ideas can be used to capture non-causal explanatory relations. And those ideas can be used to capture various kinds of cyclical dependencies.

With all that as background, here is the account of social construction which draws on the basic ideas of the interventionist approach.

Social Interventionism

For all facts X and Y, X socially constructs[23] Y if and only if

[21] In (Wilhelm, 2022), I use this fact to argue that there are circular—but still perfectly good—explanations.

[22] For instance, Folmer et al. use a non-recursive structural equation model to describe the circular dependency between (i) the density of seagrass in a particular region, and (ii) the size of sediment grains in that region (2012). Gim uses a non-recursive structural equation model to describe a feedback loop between (i) peoples' choices about where to live, and (ii) peoples' attitudes towards different modes of travel (2016).

[23] Note that Social Interventionism is an account of a relation that I call 'social construction'. This relation

(i) X is a social fact, and

(ii) there is an apt structural equation model M such that in M, the value of the variable representing X makes a difference to the value of the variable representing Y.

In other words, one fact socially constructs another just in case (i) the former fact is social, and (ii) whether or not the former fact obtains 'makes a difference' to whether or not the latter fact obtains, where 'makes a difference' is understood in terms of formal structures encoded in structural equation models.[24]

For instance, recall Jan. There is a structural equation model that captures the way in which Jan being a woman depends, counterfactually, on whether or not various relations of privilege and oppression obtain. One variable's values represent the truth value of the fact that Jan is a woman; call this the 'Jan' variable. Another variable's values represent the truth value of the fact that relations of privilege and oppression obtain in thus-and-so ways; call this the 'relations' variable. An equation describes how the value of the Jan variable is determined by the value of the relations variable: it says that the Jan variable has the value representing the truth of "Jan is a woman" if and only if the relations variable has the value representing the truth of "Relations of privilege and oppression obtain in thus-and-so ways." Altogether, this model represents the fact that those relations, of privilege and oppression, make a difference to whether or not Jan is a woman: for if the relations variable had a different value – in particular, the value representing the falsity of "Relations of privilege and oppression obtain in thus-and-so ways" – then the Jan variable would have a different value – in particular, the value representing the falsity of "Jan is a woman." Since "Relations of privilege and oppression obtain in thus-and-so ways" is a social fact, Social Interventionism

is much more general than the relation of constitutive social construction discussed at length earlier. More on that below.

[24]Two characterizations of the notion of aptness, which Social Interventionism invokes, can be adopted here (Hitchcock, 2007). First, apt models do not describe counterfactual dependencies which fail to hold: if a model is apt, then all its counterfactual dependencies obtain. Second, apt models include enough variables to capture the dependency structure of the situation being modelled.

implies the following: the fact that relations of privilege and oppression obtain in thus-and-so ways socially constructs the fact that Jan is a woman.

Though the example involving Jan was relatively simple, plenty of examples are significantly more complicated. Those complicated structural equation models capture much more intricate, fine-grained, and mutually reinforcing dependencies: the sorts of dependencies that obtain between many different variables all at once. For that reason, structural equation models are used throughout the special sciences in general, and throughout the social sciences in particular.

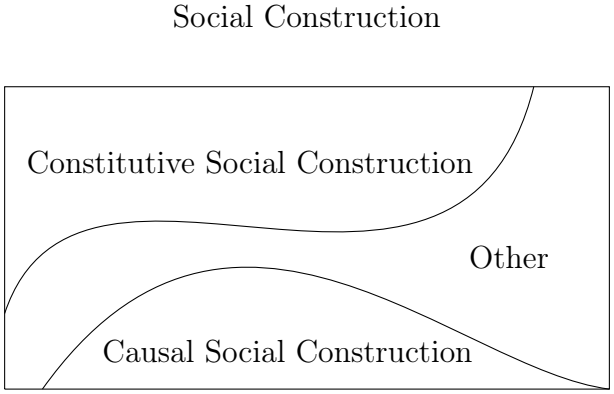
By way of illustration, consider feminist social science. Harnois uses structural equation models—along with multiracial, intersectional feminist theories—to explain the fact that women of different racial backgrounds often take different paths to feminism (2005, p. 819). Schick et al. use structural equation models to show that feminist ideology is correlated with increased condom use, sexual satisfaction, and sexual motivation (2008, p. 225). Noar and Morokoff use structural equation models to show that higher endorsement of masculine ideology correlates with negative attitudes towards condom use, and therefore, higher risk of communicating sexually transmitted diseases (2002, p. 43). Rhodebeck uses structural equation models to estimate the quantitive connections between feminist identity, feminist opinion, and individual characteristics typically associated with feminism (1996, p. 386). Fingeret and Gleaves use structural equation models to explore the relationship between (i) the internalization of sociocultural appearance standards, and (ii) body dissatisfaction in women (2004, p. 371).

Social Interventionism has an extremely attractive feature: it provides an account of social construction in general, rather than constitutive social construction in particular. So Social Interventionism describes what it takes for one fact to be socially constructed by another fact, regardless of whether the latter is constitutively socially constructed, or causally socially constructed, or socially constructed in some other way, by the former. In other words, the relation invoked in Social Interventionism is the most general social construction relation

around: it is, as I will call it, *the* social construction relation.

Here is another way to put the idea. There is a very general relation of social construction. All other relations of social construction are sub-relations of it. A little more precisely: every instance of every social construction relation—every instance of constitutive social construction, every instance of causal social construction, and so on—is an instance of the social construction relation.[25] All cases of social construction are subsumed under this extremely general, extremely unified relation of social construction.[26]

The picture below helps to illustrate the idea.



The rectangle represents the social construction relation: that extremely general, extremely unified relation of social construction. Constitutive social construction, causal social construction, and all other social construction relations, are sub-relations of the social construc-

[25]There is a slight complication. To simplify the formulation of Social Interventionism, I took X and Y to be facts. If every instance of causal social construction is also an instance of the social construction relation, however, then—given that simplification—every instance of causal social construction relates facts; so causation relates facts rather than events. To avoid this, simply adopt a rephrased version of Social Interventionism, according to which X and Y can be any items whatsoever: facts, events, and so on.

[26]Several different arguments establish the existence of the relation of social construction. Given an abundant conception of relations, for instance, the existence of the social construction relation follows directly: it is the disjunction of all social construction relations whatsoever. But those who reject an abundant conception of relations should also accept the existence of the extremely general relation of social construction. For social construction is often described in extremely general terms: it is quite common for philosophical theories of social construction to endorse claims like "This item socially constructs this other item" or "Constitutive social construction and causal social construction are two kinds of social construction." The most natural interpretation, of these claims, posits an extremely general social construction relation.

tion relation; in the picture, this is represented by the fact that the regions which represent the former relations are sub-regions of the rectangle which represents the latter relation. So every instance of those more specific relations, in particular, is an instance of the relation of social construction.

This feature of Social Interventionism—that it accounts for social construction generally—is extremely attractive. For Social Interventionism provides an account of the social construction relation. And for the reasons just given, that relation unites a whole heap of other relations of social construction: constitutive social construction, causal social construction, and so on. According to Social Interventionism, what it is to be socially constructed—whether constitutively, or causally, or in some other way—is to figure in the sorts of dependencies which apt structural equation models represent.

All this provides a significant reason to favor Social Interventionism over Social Grounding. For recall that Social Grounding only provides an account of the relation of constitutive social construction. Social Grounding implies nothing whatsoever about what it takes for something to causally socially construct something else, or for an instance of some other social construction relation to obtain. Social Interventionism, in contrast, does. And that is a significant point in favor of Social Interventionism.[27]

One final point: the notion of 'making a difference', which Social Interventionism invokes, can be understood in terms of interventions. In particular, intervening on the value of one variable can change the value of another variable: that is what it means to say that the former variable's value 'makes a difference' to the latter variable's value. And interventions, in turn, are ways of changing the state of the world: as Woodward puts it, the notion of an intervention attempts to capture the conditions that would need to be met in an ideal experimental manipulation of one worldly state, to determine whether and how that worldly

[27]In addition, Social Interventionism can be used to formulate accounts of constitutive social construction, causal social construction, and many other social construction relations. For instance, here is the account of constitutive social construction: fact X constitutively socially constructs fact Y just in case (i) X socially constructs Y, according to Social Interventionism, and (ii) the apt structural equation model M—in which the value of the variable representing X makes a difference to the value of the variable representing Y—includes a functional equation which describes a relation of constitutive dependence between Y and X.

state causes other worldly states to obtain (2003, p. 14).

To summarize: according to Social Interventionism, one fact socially constructs another just in case (i) the former is social, and (ii) in some apt structural equation model, the variable representing the former makes a difference to the variable representing the latter. So Social Interventionism provides an account of the extremely general relation of social construction. The notion of 'makes a difference' can be understood in terms of interventions: the value of one variable makes a difference to the value of another variable just in case interventions on the value of the former would change the value of the latter. And structural equation models, of the sort invoked by Social Interventionism, are used throughout the special sciences in general and the social sciences—such as feminist social science—in particular.

6 Attractions

Social Interventionism has many attractive features, in addition to the ones discussed above; here, I discuss four. First, Social Interventionism does not face the structural problem. Second, Social Interventionism respects the intuitive claim that structural equation models in social sciences describe relations of social construction. Third, Social Interventionism provides a nice account of how social construction is explanatory. Fourth, Social Interventionism underwrites the pursuit of ameliorative social justice projects. Let us consider each of these in turn.

To start, here is the first attraction: Social Interventionism does not face the structural problem, for the simple reason that structural equation models need not be either well-founded or acyclic. As mentioned in Section 5, some structural equation models—used in the special sciences—are non-recursive. Other structural equation models feature infinite descending sequences of variable dependencies: for each variable in the sequence, the values of that variable depend on the values of the variable which immediately follows it. So structural equation models, unlike grounding, are not assumed to to be either well-founded or acyclic.

And so the structural problem does not arise for Social Interventionism.

Because of all this, Social Interventionism is compatible with non-well-founded, and cyclical, cases of social construction. That is a feature of Social Interventionism, not a bug. For the sorts of reasons discussed in Section 4.2, it is quite plausible that the social construction relation can figure in cyclical and non-well-founded structures. Social explanations are often holistic, and social phenomena are often interdependent. And Social Interventionism respects that, since the dependencies which structural equation models describe are often holistic and interdependent too.

Now for the second attraction: Social Interventionism respects the intuitively plausible claim that in social science fields—like feminist social science—structural equation models are often used to describe social construction. For according to Social Interventionism, if an apt structural equation model describes dependencies that involve social facts, then corresponding instances of the social construction relation obtain. In the social sciences, many structural equation models describe dependencies of precisely that sort. Therefore, given Social Interventionism, many structural equation models in the social sciences describe the phenomenon of social construction.

That makes sense. A large part of what we learn, from social science research, is how social construction works. So often, models of social phenomena are best interpreted as describing cases of social construction. The models discussed by Harnois, for instance, are a case in point (2005, p. 821). As that model shows, facts about white women—in particular, facts about the salience of feminism in white women's lives—constitutively socially construct various aspects of traditional and progressive gender ideology: Harnois' model captures this by describing correlative dependencies between variables in structural equation models (2005, p. 818). Facts about Black women, in contrast—specifically, facts about the salience of feminism in Black women's lives—do not constitutively socially construct those gender ideology facts to the same degree: Harnois' model captures this by describing correlative dependencies between variables in structural equation models too (2005, pp. 818-819). And the experiences

of women in different racial groups causally socially constructs those womens' tendencies to embrace feminism: whereas being married and being religious are negatively associated with white women's closeness to feminism, being married and being religious are comparatively less negatively associated with white women's closeness to feminism (2005, p. 824).[28]

acts about women in different racial and ethnic groups constitutively socially construct facts about the feminist ideology that they endorse, and those womens' experiences causally socially construct what they ultimately believe (2005).

The third attraction concerns the explanatory capacities of structural equation models. Those models are used to represent many different kinds of explanatory dependencies. So given Social Interventionism, it is unsurprising that social construction is an explanatory relation. For social construction tracks the sorts of dependencies—which are, very often, explanatory dependencies—that structural equation models describe.

Finally, here is the fourth attraction: Social Interventionism supports ameliorative projects. For Social Interventionism draws on notions from the interventionist approach to causal and non-causal explanation. And that approach emphasizes the malleability, and contingency, of various explanatory structures. By intervening on the value of thus-and-so variable in a structural equation model, that is, the value of such-and-such variable can be changed. By intervening on the variables that lead women to internalize heteronormative appearance standards (Fingeret & Gleaves, 2004), for instance, we can reduce body dissatisfaction.

In fact, Social Interventionism can be used to formulate extremely precise recommendations for how to intervene on the structure of society, in order to achieve a more socially just world. Structural equation models describe the correlations between variables to an extremely high degree of precision. These models can be used to predict, to a high degree of accuracy, what the effects of this-or-that intervention will be. So these models facilitate recommendations that are much more detailed, precise, and helpful, than recommendations

[28] All this, of course, provides strong empirical confirmation for the intersectional theories proposed by Collins (2019) and Crenshaw (1991).

which do not codify large amounts of empirical data, and which do not describe the detailed correlations that obtain between different sorts of variables.

7 Conclusion

Ground-theoretic accounts of constitutive social construction—when combined with Sociality—face the structural problem. That problem can be solved, of course, by either accepting its unattractive consequences or by rejecting Sociality. But both responses are costly; so it is worth exploring other accounts of constitutive social construction.

Social Interventionism is one such account. According to Social Interventionism, one fact socially constructs another just in case (i) the former is social, and (ii) in some apt structural equation model, the value of the variable representing the latter depends on the value of the variable representing the former. Or to put it more simply: according to Social Interventionism, social construction is a matter of dependencies—of the sort which structural equation models describe—obtaining among social facts.

There is much to like about Social Interventionism. It provides an account of the general social construction relation, and so subsumes more specific social construction relations like constitutive social construction and causal social construction. It avoids the structural problem. It respects the intuitively plausible claim that many structural equation models, in the social sciences, describe social construction relations. It captures the explanatory capacities of social construction. And it supports ameliorative projects. So Social Interventionism is worth taking seriously.

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