

# Social Construction, Grounding, and Interventionism

Isaac Wilhelm

(please ask before citing/circulating)

## Abstract

Grounding is often used to formulate accounts of social construction. As I argue, given standard grounding principles, ground-theoretic accounts of social construction conflict with empirical models studied in special sciences like feminist sociology, economics, psychology, and more. The conflict arises because many such models posit circular cases of social construction: these are cases in which one fact both socially constructs, and is socially constructed by, another fact. Ground-theoretic accounts of social construction imply that there are no circles like these. Therefore, I conclude, those ground-theoretic accounts should be rejected. In their place, I propose an alternative account of social construction—based on interventionist approaches to causal and non-causal explanation—which allows for social construction in a circle.

## 1 Introduction

Relations of social construction connect elements of the social world to whatever generates them (Barnes, 2014, 2016; Epstein, 2015; Haslanger, 2012; Mallon, 2017). Many facts, properties, objects, groups, kinds, and so on, do not result from the non-social, natural realm. They result from society – they are socially constructed. The fact that Jan is a woman, for example, does not derive from biological facts about Jan’s reproductive organs, chromosomes, or some such things.

The fact about Jan’s womanhood derives from, perhaps, facts about oppression and privilege (Haslanger, 2000).<sup>1</sup>

To give an account of the metaphysics of social construction, several philosophers appeal to grounding (Griffith, 2018b; Ritchie, 2020; Schaffer, 2017). For 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 raise a problem for ground-theoretic accounts of social construction. Given standard grounding principles, these accounts imply that social construction is acyclic. But that implication is problematic. For as I argue, certain models—studied throughout the special sciences—posit cyclical cases of social construction. So ground-theoretic accounts conflict with the models studied in the special sciences.

All this motivates looking for a different account of the metaphysics of social construction, one which does not appeal to grounding. So I propose one, called ‘Social Interventionism’. Basically, according to Social Interventionism, social construction is a matter of certain patterns of counterfactual dependencies—including 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.

In addition to arguing against increasingly popular ground-theoretic accounts of social construction, and presenting an alternative account, this paper makes another valuable contribution to the literature. As will be demonstrated, philosophers of social construction would gain a great deal from drawing more explicit connections between their metaphysical theories and the empirical sciences. Special scientists employ structural equation models to describe important

---

<sup>1</sup>Throughout this paper, in order to have a concrete working example, I assume that facts about oppression are what socially construct—and what ground—Jan’s womanhood. The reader is welcome to substitute their own preferred conception, of what socially constructs or what grounds womanhood facts, into the examples to come.

complexities in the social world: for instance, take models of racial oppression (Harnois, 2005), or models of feminist ideology and sex education (Schick et al., 2008), or models of masculine ideology and sexually transmitted diseases (Noar & Morokoff, 2002). These models—and many more, discussed later—describe social structures which metaphysical accounts of social construction should accommodate. Social Interventionism is designed to do that; and as a result, Social Interventionism directly connects the metaphysics of social construction with empirically-motivated recommendations for how to intervene on society, to change the world for the better. Other accounts of the metaphysics of social construction, however—like ground-theoretic accounts—are often not designed to accommodate these empirical models; and so they do not draw such direct connections between the metaphysics of social construction and empirically-motivated recommendations for social change. The present paper shows that various problems can be avoided, and various benefits can accrue, when metaphysical theorizing about social construction takes guidance from empirical results.

In Section 2, I summarize some ground-theoretic accounts of the metaphysics of social construction. In Section 3, I argue that these ground-theoretic accounts conflict with various special science models. In Section 4, I formulate Social Interventionism, and I give several arguments for it.

## **2 Social Grounding**

This section introduces Social Grounding, an account of social construction which captures the core of various ground-theoretic accounts in the literature. To start, I make some clarificatory remarks about social construction and grounding. Then I present a grounding principle which will be particularly important in what follows. Finally, I present Social Grounding, and I explain its relationship to other ground-theoretic accounts of social construction.

Some terminology will be helpful. 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 are items, as are properties, objects, and so on.

There are many different relations of social construction, corresponding to many different ways that social phenomena generate various items (Haslanger, 2012, pp. 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, I generally focus on the relation of constitutive social construction.<sup>2</sup>

Now for grounding. Following Rosen (2010), I take grounding to be a relation between facts. Some take grounding to be a sentential connective (Fine, 2010), while others take grounding to be a relation that can obtain between basically any items at all (Schaffer, 2009). These other formal regimentations of grounding could be used instead; that would just require some rephrasings of the examples and arguments to come.

The following principle of grounding will be particularly important in the arguments to come.

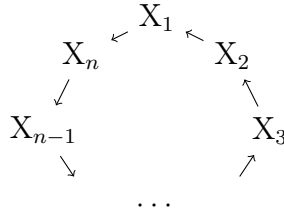
#### Acyclic Grounding

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

In other words, the following structure never obtains.

---

<sup>2</sup>In Section 4, however, I analyze a more general relation of social construction, which contains constitutive social construction as a sub-relation.



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

An aside: in this paper, I focus on partial ground and partial constitutive social construction. The relations of full ground, and full constitutive social construction, can be defined in terms of their partial counterparts. So whenever I write that one item grounds – or socially constructs – another item, I mean that the former partially grounds – or partially socially constructs – the latter.

Grounding has been used to formulate accounts of constitutive social construction (Griffith, 2018b; Ritchie, 2020; Schaffer, 2017). The common core, which those accounts share, is well-captured by the account 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  $Y$ .

In other words, constitutive social construction just is grounding where the grounders are social.

For example, consider Jan once more. Let  $Y$  be the fact that Jan is a woman. Let  $X$  be the extremely complicated fact, about relations of privilege and oppression in society, which grounds  $Y$ . Note that  $X$  is a social fact, since it is about social relations. Therefore, 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.

Ground-theoretic accounts of constitutive social construction, quite similar to Social Grounding, are endorsed throughout the literature. For instance, consider the account below, which Schaffer proposes.

### Schaffer Social Grounding

For all  $X$ ,  $X$  is constitutively socially constructed if and only if  $X$  is grounded in distinctive social patterns (Schaffer, 2017, p. 2454).

Similarly, consider the account below, which Griffith proposes.

### Griffith Social Grounding

For each subject  $S$  and social kind  $K$ ,  $[S \text{ is a } K]^3$  is constitutively socially constructed if and only if  $[S \text{ is a } K]$  is grounded in particular features of social reality (Griffith, 2018b, p. 395).

Both of these accounts identify (i) the constitutive social construction of a given item, with (ii) that item being grounded in something social itself.<sup>4</sup> So both of these are ground-theoretic accounts of constitutive social construction.

For efficiency, in this paper, I generally focus on Social Grounding, rather than specific ground-theoretic accounts of constitutive social construction taken on their own. For as will become clear, the differences between Social Grounding and other specific accounts—like Schaffer Social Grounding and Griffith Social Grounding—do not matter. The problems which arise for Social Grounding also arise for those other accounts; when helpful, in what follows, I explain how.

## **3 The Circle Problem for Social Grounding**

In this section, I raise a problem—call it the ‘circle problem’—for Social Grounding. Very roughly put, the circle problem is this. Lots of special science models posit circular dependencies among social facts. Those circular dependen-

---

<sup>3</sup>Griffith uses the following notation: for any sentence  $p$ ,  $[p]$  denotes the fact that  $p$ .

<sup>4</sup>For another ground-theoretic account of constitutive social construction, see (Ritchie, 2020, p. 407).

cies are, in many cases, circles of constitutive social construction.<sup>5</sup> But Social Grounding, along with Acyclic Grounding, implies that constitutive social construction never forms a circle. So Social Grounding, along with Acyclic Grounding, contradicts lots of empirically well-supported models in the special sciences. Therefore, either Social Grounding or Acyclic Grounding must be rejected; and given that Acyclic Grounding is a standard grounding principle, rejecting Social Grounding is best.

Note that the circle problem is superficially similar to, but importantly different from, other arguments in the literature. For example, Haslanger argues that cheese counting as food—rather than as, say, spoiled milk—constitutively socially constructs cheese figuring in culturally shared concepts, and cheese figuring in those concepts constitutively socially constructs cheese counting as food (2016, pp. 126-127). While writing about grounding—and its applicability to theories of, among other things, constitutive social construction—Mikkola argues that some people accepting a piece of paper being money grounds the piece of paper counting as money, and the piece of paper counting as money grounds those people accepting the piece of paper being money (2015, p. 788). And more arguments, also based on intuitions about cases, purport to show that social phenomena exhibit lots of circular interdependencies (Barnes, 2014; Witt, 2011).

The circle problem is quite different from all this. For the circular problem, unlike the arguments just mentioned, draws on empirical models of social phenomena studied in the special sciences, rather than intuitions about particular cases. The empirical models capture quantifiable dependencies, among social facts, that can be analyzed using standard statistical methods. As those analyses reveal, many such dependencies are circular – and for reasons I discuss later, many of those circular dependencies are circles of constitutive social construction. So the circle problem is quite hard to reject: it has the backing of empirical models, positing non-causal feedback loops, that are studied throughout the sciences.

By way of preparation for the circle problem, note that Social Grounding—along with Acyclic Grounding—implies the principle below.

---

<sup>5</sup>A ‘circle of constitutive social construction’ is a finite sequence of facts such that the first constitutively socially constructs the second, which constitutively socially constructs the third, and so on, all the way back to the first.

### Acyclic Social Construction

There is no finite collection of facts  $X_1, X_2, X_3, \dots, X_n$ , such that  $X_1$  is constitutively socially constructed by  $X_2$ ,  $X_2$  is constitutively socially constructed by  $X_3$ ,  $\dots$ ,  $X_{n-1}$  is constitutively socially constructed by  $X_n$ , and  $X_n$  is constitutively socially constructed by  $X_1$ .

In other words, there are no circles of constitutive social construction.<sup>6</sup>

Before presenting the circle problem, it is worth reviewing some features of the special science models—called ‘structural equation models’—which will be relevant here. Roughly put, structural equation models are formal frameworks for representing various sorts of dependencies. To do that, structural equation models use four bits of formalism: variables, values that variable can 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 counterfactual dependency 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 shattering. An equation relates these variables, and so formally represents two facts about the counterfactual dependencies 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.

Many different sorts of dependencies can be encoded in structural equation models. Some of the encoded dependencies are causal: these dependencies have been used to develop interventionist approaches to causation (Halpern & Pearl, 2005a, 2005b; Woodward, 2003; Woodward & Hitchcock, 2003a, 2003b). Other encoded dependencies track non-causal relations of metaphysical dependence: these dependencies have been used to develop theories of grounding (Schaffer, 2016; Wilson, 2018), and theories of non-causal explanatory relations more gen-

---

<sup>6</sup>Here is the derivation of Acyclic Social Grounding from Social Grounding. Let  $X_1, X_2, \dots, X_n$  be a finite collection of facts. By Acyclic Grounding, either  $X_1$  is not grounded in  $X_2$ , or  $\dots$ , or  $X_{n-1}$  is not grounded in  $X_n$ , or  $X_n$  is not grounded in  $X_1$ . So by condition (ii) in Social Construction, either  $X_1$  is not socially constructed by  $X_2$ , or  $\dots$ , or  $X_{n-1}$  is not socially constructed by  $X_n$ , or  $X_n$  is not socially constructed by  $X_1$ . Hence Acyclic Social Construction.



erally (Wilhelm, 2021a, 2021b). All of these explanatory relations, causal and non-causal alike, exhibit counterfactual—including counterlogical and counteridentical—dependencies which can be captured by the formalism of structural equations.

Because of that, structural equation models are used throughout the special sciences. Take feminist social sciences in particular. 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 quantitative 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). And Nelson et al. use structural equation models to show that certain sorts of gender-based life experiences influence womens’ feminist self-identifications, which in turn influence collective action (2008, p. 721).

To illustrate how these models encode cases of both constitutive social construction and causal social construction, consider Harnois’s model in particular (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 Black women’s closeness to feminism (2005, p. 824).<sup>7</sup>

A word of caution: do not assume that these structural equation models only ever encode causal dependencies. As Harnois demonstrates, structural equation models in the special sciences often encode non-causal dependencies—including constitutive dependencies—too. Now, special scientists often describe their models in causal terms. But it would be overly hasty to assume, on the basis of those causal-term-laden descriptions, that the dependencies encoded in structural equation models are always causal dependencies – rather than sometimes, say, constitutive dependencies, or grounding dependencies, or non-causal explanatory dependencies of other kinds. I sympathize with the view that there are plenty of non-causal explanations in the sciences,<sup>8</sup> and structural equation models are effective tools for capturing the dependencies which underwrite those explanations.

For another example, take the dependency between (i) endorsements of masculine ideology, and (ii) negative attitudes towards condom use (Noar & Morokoff, 2002). The relationship between (i) and (ii) is constitutive rather than causal. Positive attitudes towards traditional masculine ideology are partially constitutive of negative attitudes about using condoms: part of what it is to have negative attitudes towards condom use, in other words, is to have positive attitudes towards the traditional masculine view which holds condoms in low regard. Noar and Morokoff themselves are careful to note that their findings “should not be interpreted causally” (2002, p. 55). So Noar and Morokoff’s model does not demonstrate a causal dependency between (i) and (ii). It establishes a dependency of a different sort: and for the reasons given above, that dependency is constitutive.

One final feature of structural equation models is worth mentioning. Some models—called ‘non-recursive’—encode circles of dependencies. 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 ...

---

<sup>7</sup>All this provides strong empirical confirmation, of course, for the intersectional theories discussed throughout the feminist literature (Collins, 2019; Crenshaw, 1991).

<sup>8</sup>For arguments in favor of this, see (Colyvan, 2002; Craver, 2007; Lange, 2014). For arguments against, see (Melia, 2002; Saatsi, 2016).

which in turn affect the first variable's values. So some of the dependencies, which these non-recursive structural equation models posit, are circular.

With all that as background, here is the key observation which generates the circle problem for Social Grounding: many structural equation models, used in many different special sciences to capture dependencies among social phenomena, are non-recursive. And many of those dependencies, in turn, form circles of constitutive social construction: social phenomena constitutively socially construct each other, in a circle. Therefore, many structural equation models commit us, empirically, to circles of constitutive social construction.

To illustrate, take the non-recursive structural equation model proposed by Zaky et al. (2024). This model describes the reciprocal relationship, among married women in Egypt from the year 2014, between (i) women's empowerment, and (ii) mental health. Empowerment depends on mental health: more mentally healthy women experience higher levels of empowerment, and less mentally healthy women experience lower levels of empowerment. Mental health also depends on empowerment: more empowered women have better mental health outcomes, and less empowered women have worse mental health outcomes.<sup>9</sup> So women's empowerment, and women's mental health, form a circle of dependency: each depends on the other.

The circular dependencies here are best understood in terms of constitutive social construction. It makes sense to claim that a given woman's empowerment is, partially, constitutively socially constructed from that woman's mental health. Part of what it is to be empowered, after all, is to be mentally well. And it makes sense to claim that a given woman's mental health is, partially, constitutively socially constructed from that woman's empowerment. Part of what it is to be mentally well, after all, is to be empowered. So empowerment and mental well-

---

<sup>9</sup>Empowerment is measured by, among other things, the woman's degree of comfort in discussing sensitive issues with others, the woman's degree of freedom in her relationship with her spouse, how the woman's spouse treats her, and so on (Zaky et al., 2024, p. 4). Mental health is measured by, among other things, the woman's degrees of stress, sleep quality, fatigue, frustration, and so on (Zaky et al., 2024, pp. 4-5). The different dimensions of empowerment, and the different dimensions of mental health, affect each other to different degrees: the frequency and quality of a woman's discussions of difficult topics with her spouse, for instance – which is one of the parameters used to measure empowerment – affects all mental health dimensions simultaneously (Zaky et al., 2024, p. 8).

being determine each other, constitutively. And so the circular dependencies, in Zaky et al.’s model, form a circle of constitutive social construction.

One might object that the circular dependencies, which Zaky et al.’s model encodes, are causal rather than constitutive; so those dependencies are cases of causal social construction rather than constitutive social construction. For several reasons, however, this objection is implausible. First, this objection contradicts the following principle about the asymmetry of causation: if something causes something else, then the latter does not cause the former. Since the dependencies in Zaky et al.’s model form a circle, they violate this asymmetry principle. Second, this objection contradicts the temporal extendedness of causation. The causal relation is not simultaneous: if something causes something else, then the time at which the former obtains is earlier than the time at which the latter obtains. As Zaky et al. observe, however, the dependencies in their model are simultaneous: at any given time, the circular dependencies relate (i) a woman’s degree of empowerment at that time, to (ii) that woman’s mental health at that very same time (Zaky et al., 2024, p. 3). So the circular dependencies in Zaky et al.’s model do not have the right formal features to track cases of causation.

It would be a mistake to object by claiming that the counterfactual dependency between empowerment and mental health, in Zaky et al.’s model, is merely correlational. Structural equation models are useful, in large part, because they help scientists distinguish correlational relationships from determinative relationships like causation, constitution, and so on (Kline, 2016; Pearl, 2021). So the fact that Zaky et al.’s model features equations directly connecting empowerment and mental health suggests, strongly, that the connection is not merely correlational.

It is implausible to object that Zaky et al.’s model, with its circular dependencies, can be disregarded as a quirk, or a one-off, or an edge case – that is, as too unusual an empirical model to inform our social metaphysics theorizing. For many other special science models posit circles of constitutive social construction too. While analyzing religiosity and mental disorders among those who experienced the 1994 Rwandan genocide, for example, Heim and Schaal use a non-recursive structural equation model to show that there is a cyclical, interdependent relationship between (i) the importance given to religion, and (ii) mental stress (2014). Specifically, higher levels of mental stress provoke a higher

importance given to religion, which in turn provokes lower levels of mental stress, which in turn provokes less importance given to religion (Heim & Schaal, 2014, p. 7). The relationship between mental stress and attitudes about religion is not causal, since it is non-asymmetric and it is simultaneous. In addition, it is plausible to claim both that experienced stress levels are partially constitutively socially constructed from attitudes about religion, and that attitudes about religion are partially constitutively socially constructed from experienced stress levels. So the model proposed by Heim and Schaal posits a circle of constitutive social construction.

As another example, note that while analyzing feminism and the gender gap, Cook and Wilcox suggest using a non-recursive structural equation model to demonstrate that there is a reciprocal dependency between feminist values and policy preferences: sympathy towards feminism, they hypothesize, depends on preferences for feminist policies, and preferences for feminist policies depend on sympathy towards feminism (1991, p. 1117).<sup>10</sup> Feminist sympathies are constitutively socially constructed out of preferences for feminist policies: part of what it is to be sympathetic to feminism, in other words, is to prefer that feminist policies be adopted. In addition, preferences for feminist policies are constitutively socially constructed out of feminist sympathies: part of what it is to have a preference for feminist policies, in other words, is to be sympathetic to feminism. So this is another example of a circle of constitutive social construction.<sup>11</sup>

To summarize, the circle problem for Social Grounding is this. Plenty of special science theories employ non-recursive structural equation models. Those models posit circular dependencies among social phenomena which are, often,

---

<sup>10</sup>Cook and Wilcox do not provide a complete analysis of the relevant non-recursive model. Instead, they observe that such a model is needed in order to completely unentangle the reciprocal relationship between feminist values and policy preferences.

<sup>11</sup>For yet another example, consider a study of peoples' decisions about when to leave their jobs (Chang et al., 2007). The study shows that there is a reciprocal dependency relationship between organizational turnover intention – that is, the intention to change from working at one organization to working at another – and occupational turnover intention – that is, the intention to change occupations entirely. As Chang et al. put it, organizational and occupational turnover intention depend on each other simultaneously (2007, p. 356). Since attitudes about organizational turnover both partially construct, and are partially constructed by, attitudes about occupational turnover—and since these attitudes are social—this is a circle of constitutive social construction too.

cases of constitutive social construction. So the constitutive social construction relation can form circles. Therefore, Acyclic Social Construction does not hold. So either Social Grounding or Acyclic Grounding must be rejected. And therefore, we should reject Social Grounding.

One might object by claiming that Acyclic Grounding should be rejected instead. For two reasons, however, this is an unattractive response to the circle problem. First, the vast majority of grounding theorists either endorse Acyclic Grounding directly (Bennett, 2017, p. 122; Rosen, 2010, p. 116), or endorse two principles from which Acyclic Grounding follows (Cameron, 2008, p. 13; Fine, 2010, pp. 104-105; Rabin & Rabern, 2016, pp. 351-355).<sup>12</sup> Schaffer, one of the main proponents of ground-theoretic approaches to constitutive social construction, endorses versions of Acyclic Grounding too (2009, p. 376; 2016, p. 196). So for many fans of ground, rejecting Acyclic Grounding would be extremely costly.

Second, this response to Acyclic Grounding conflicts with an attractive analysis—call it the ‘grounding 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 this response to Acyclic Grounding, the grounding analysis implies that relative fundamentality is not acyclic, and so relative fundamentality can ‘loop’. But that is implausible. It is not intuitively clear what a ‘loop of relative fundamentality’ would be. So overall, it seems best to accept the grounding analysis, reject the view that relative fundamentality can ‘loop’, and therefore reject this response to the circle problem.

Note that versions of the circle problem arise for Schaffer Social Grounding and for Griffith Social Grounding. To see why, start by considering Schaffer Social Construction specifically. Let  $X_1$  and  $X_2$  be any two items which, in accord with any of the models described above, constitutively socially construct each other: perhaps  $X_1$  is the fact that a given woman has high levels of empowerment, and perhaps  $X_2$  is the fact that this woman is quite mentally healthy. Then  $X_1$  constitutively socially constructs  $X_2$ , and  $X_2$  constitutively socially constructs  $X_1$ . So by Schaffer Social Grounding, both  $X_1$  and  $X_2$  are grounded in distinctive social patterns. Plausibly, since both  $X_1$  and  $X_2$  constitutively socially construct

---

<sup>12</sup>One exception is Jenkins’ defense of the view that grounding is not irreflexive, and therefore is not acyclic (2011, pp. 267-269).

each other, the social patterns which ground  $X_1$  include – or are grounded in –  $X_2$ , and the social patterns which ground  $X_2$  include – or are grounded in –  $X_1$ .<sup>13</sup> Therefore,  $X_1$  and  $X_2$  ground each other. And that contradicts Acyclic Grounding.

Here is how the circle problem arises for Griffith Social Grounding. Let  $X_1$  and  $X_2$  be as before, let  $S_1$  and  $S_2$  be the woman in question, let  $K_1$  be the social kind of having high levels of empowerment, and let  $K_2$  be the social kind of being mentally healthy: so  $X_1$  is the fact  $[S_1 \text{ is a } K_1]$ , and  $X_2$  is the fact  $[S_2 \text{ is a } K_2]$ . Since these two facts constitutively socially construct each other, Griffith Social Grounding implies that each of these facts is grounded in particular features of social reality. Plausibly, among all the social features which help ground  $[S_1 \text{ is a } K_1]$ , at least one such feature is—or is itself grounded in—the fact  $[S_2 \text{ is a } K_2]$ : this follows from the principle, suggested by Griffith’s own account, that if  $Y$  constitutively socially constructs  $X$  then  $Y$  is among the particular features of social reality in which  $X$  is grounded. Therefore,  $X_1$  and  $X_2$  ground each other. And again, that contradicts Acyclic Grounding.

So the circle problem is not just some oddity of Social Grounding specifically. It is a pervasive issue which arises for ground-theoretic approaches to constitutive social construction in general. And given that many non-recursive models in the special sciences posit circles of constitutive social construction, this should not be surprising. For after all, grounding is an asymmetric relation. So if constitutive social construction is not asymmetric—as suggested by many empirical models in the special sciences—then grounding is not well-suited to analyze constitutive social construction.

## 4 Social Interventionism

In this section, I formulate and defend Social Interventionism, an account of social construction which avoids the circle problem. Social Interventionism is based on structural equation models, in much the same way that interventionist

---

<sup>13</sup>This follows from the principle that if  $Y$  constitutively socially constructs  $X$ , then  $Y$  is among the distinctive social patterns in which  $X$  is grounded.

accounts of causation and explanation (Woodward & Hitchcock, 2003a)—and some accounts of grounding, in fact (Schaffer, 2016), which I discuss later—are based on structural equation models. But unlike those other accounts, Social Interventionism incorporates models which are non-recursive. As a result, Social Interventionism allows for circles of constitutive social construction.

Roughly, Social Interventionism is the following view. A vast network of counterfactual dependencies permeates the social world. Some patterns of counterfactual dependencies, within that network, comprise the constitutive social construction relation. Other patterns of counterfactual dependencies comprise the causal social construction relation. Perhaps still other patterns of counterfactual dependencies comprise still other social construction relations: for instance, discursive construction (Haslanger, 2012, p. 88), pragmatic construction (Haslanger, 2012, p. 90), and more. Altogether, these various patterns of counterfactual dependencies—for constitutive social construction, causal social construction, and so on—form a single, general relation of social construction: what I call ‘the social construction relation’, or just ‘social construction’, in what follows.<sup>14</sup> But only certain patterns of counterfactual dependencies correspond to cases of social construction: the patterns expressed by structural equation models like those which special scientists study. In other words, according to Social Interventionism, social construction of any variety—constitutive, causal, and so on—just is a collection of counterfactual dependency patterns, of the sort which are well-modelled by structural equations. Social construction just is a matter of counterfactual dependency patterns, that apt structural equation models describe, obtaining.

Put more succinctly, and more precisely, here is the account of social construction.

#### Social Interventionism

For all  $X$  and  $Y$ ,  $X$  socially constructs  $Y$  if and only if

- (i)  $X$  is social, and
- (ii) there is an apt<sup>15</sup> structural equation model  $M$ —representing a pat-

---

<sup>14</sup>So Social Interventionism is an account of the general relation of social construction, rather than of constitutive social construction, causal social construction, or some more specific relation of social construction in particular. More on this below.

<sup>15</sup>A model is apt just in case, roughly put, that model is empirically and explanatorily adequate



tern of counterfactual dependencies in which  $X$  and  $Y$  figure—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, something socially constructs something else just in case (i) the former is social, and (ii) the former ‘makes a difference’ to the latter, where ‘makes a difference’ is understood in terms of counterfactual dependency patterns which structural equation models capture.

For instance, a structural equation model represents a pattern of counterfactual dependency in which Jan’s being a woman depends on relations of privilege and oppression. 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, and since the structural equation model is empirically well-motivated and apt, Social Interventionism 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.

Social Interventionism, unlike Social Grounding, respects the fact that many structural equation models represent circles of constitutive social construction. To illustrate, recall that according to Zaky et al.’s non-recursive model, a given

---

for describing the essential dependency features of the situation at issue. For more discussion of aptness, see (Hitchcock, 2007).

women's empowerment both constitutively socially constructs, and is constitutively socially constructed by, that woman's mental well-being. Social Interventionism captures that quite well. For a given women's empowerment, and that woman's mental well-being, figure in many different patterns of counterfactual dependencies. One pattern is represented by Zaky et al.'s model. And in that model, the value of the variable representing a given women's empowerment makes a difference to the value of the variable representing that woman's well-being, and the value of the variable representing that woman's well-being makes a difference to the value of the variable representing that woman's empowerment. So according to Social Interventionism, there is a circle of constitutive social construction between that woman's empowerment and her mental well-being.

Put a different way: Social Interventionism respects the holistic, interdependent nature of the social world. The patterns of counterfactual dependencies represented by structural equation models are often holistic and interdependent. Social Interventionism takes those patterns to be cases of social construction – and in so doing, respects the verdicts of empirical science. And that is a significant argument in favor of Social Interventionism.

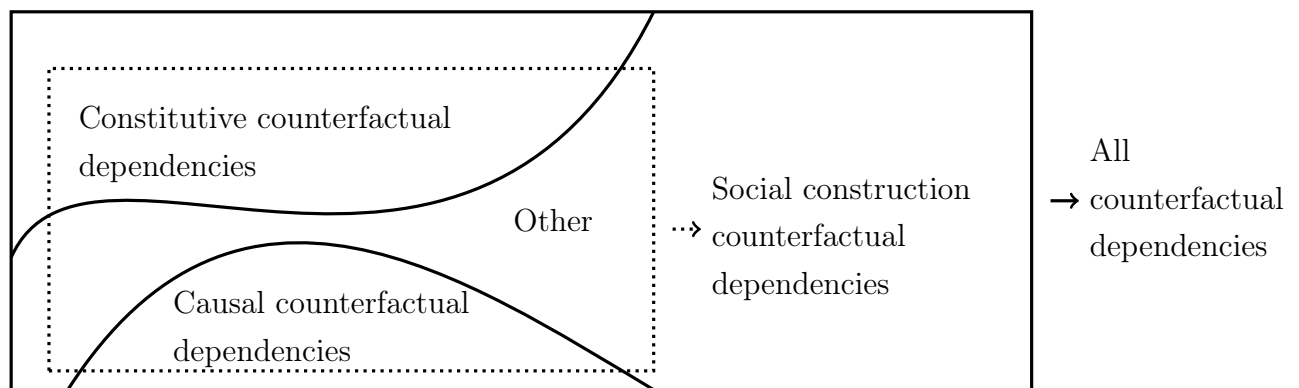
Another argument appeals to the way that Social Interventionism unifies the different social construction relations. Specific relations of social construction—like constitutive social construction and causal social construction, for instance—can be analyzed in terms of different patterns of counterfactual dependencies that, according to Social Interventionism, count as cases of social construction. For instance, some patterns of counterfactual dependencies are causal: the patterns corresponding to how certain interventions in the stock market cause certain sorts of recessions, say. Given Social Interventionism, those patterns of counterfactual dependencies count as cases of social construction. So given Social Interventionism, and given that those patterns are causal, those patterns concern causal social construction specifically. Other patterns of counterfactual dependencies are constitutive: the patterns corresponding to how relations of privilege and oppression obtaining in thus-and-so ways constitute Jan being a woman, say. Given Social Interventionism, those patterns of counterfactual dependencies count as cases of social construction. So given Social Interventionism, and given that those patterns are constitutive, those patterns concern constitutive social construction specifi-

cally. For analogous reasons, other patterns of counterfactual dependencies may concern discursive social construction, pragmatic social construction, and more.

Here is another way to put the point. There is the general relation of social construction; this is the relation for which Social Interventionism accounts. All other relations of social construction are sub-relations of that general relation. The other social construction relations are importantly different from one another, of course. And Social Interventionism provides the resources to account for those differences. What makes something a case of causal social construction rather than constitutive social construction, for instance, is that the corresponding pattern of counterfactual dependencies is causal rather than constitutive. And what makes something a case of constitutive social construction rather than causal social construction, is that the corresponding pattern of counterfactual dependencies is constitutive rather than causal.

There is nothing problematically circular or question-begging about this account, of what unifies and what distinguishes various specific social construction relations, which Social Interventionism supports. According to this account, there are a bunch of counterfactual dependencies, some constitutive and some causal and some neither. These counterfactual dependencies come, pre-equipped, with this sorting into the constitutive dependencies, the causal dependencies, and so on. Social Interventionism simply picks out those dependencies, constitutive or causal or whatever, which count as cases of social construction.

In picture form, the idea is this.



The outermost rectangle represents all patterns of counterfactual dependencies

whatsoever. The upper region of the outermost rectangle bounded by the upper curved line represents constitutive counterfactual dependencies. The lower region of the outermost rectangle bounded by the lower curved line represents causal counterfactual dependencies. The dashed innermost rectangle, which crosscuts both of those regions, represents the counterfactual dependencies that, according to Social Interventionism, count as cases of social construction. Note that some cases of constitutive counterfactual dependence are, according to Social Interventionism, cases of social construction: hence, these are cases of constitutive social construction in particular. Some cases of causal counterfactual dependence are, according to Social Interventionism, cases of social construction too: hence, these are cases of causal social construction in particular.<sup>16</sup> And there are, perhaps, still other cases of counterfactual dependence which count as cases of social construction: those are the cases labeled ‘Other’ in the picture above.

Social Grounding, along with Schaffer Social Grounding and Griffith Social Grounding, cannot capture any of this. For those other accounts only purport to cover constitutive social construction in particular.<sup>17</sup> They do not purport to cover causal social construction. Nor do they support explanations of the source of the distinction between constitutive social construction, causal social construction, and so on. Social Interventionism, however, does both. For Social Interventionism covers constitutive social construction, causal social construction, and all other relations of social construction as well. And Social Interventionism provides an explanation of the source of the distinction between constitutive social construction, causal social construction, and more: the distinction arises from analogous distinctions among patterns of counterfactual dependence, namely from the distinction between constitutive patterns of counterfactual dependence, causal patterns of counterfactual dependence, and so on.

---

<sup>16</sup>Note that some cases of constitutive counterfactual dependencies, and causal counterfactual dependencies, do not count as cases of social construction. Those cases correspond to cases of constitution, and cases of causation, in the non-social—physical, say—world. In other words: not all dependencies are social; and the above picture, and Social Interventionism, respects that.

<sup>17</sup>Note that this is also true of Griffith’s realization account of social construction, which supplements Griffith Social Grounding with an account of how particular cases of ground-theoretic social construction amount to instances of the realization relation (2018a, p. 244). The relevant notion of grounding, as it appears in this realization account, is explicitly non-causal (Griffith, 2018a, p. 243). So this realization account, like Griffith Social Grounding, only purports to cover cases of constitutive social construction.

All this amounts to another argument in favor of Social Interventionism. For Social Interventionism both (i) unifies the different social construction relations, by subsuming them under an account of the general relation of social construction in terms of the counterfactual dependency patterns represented by structural equation models, and (ii) supports an explanation of what distinguishes those relations from each other, by invoking differences among the counterfactual dependency patterns at issue. Ground-theoretic accounts of social construction do neither (i) nor (ii). Social Interventionism is quite attractive, insofar as it does.

One might object to the argument just given—that Social Interventionism unifies the different social construction relations, but ground-theoretic accounts do not—along the following lines. Schaffer, one of the main proponents of ground-theoretic approaches to constitutive social construction, has proposed an account of grounding which appeals to structural equation models (2016). Such models have also been used to give accounts of causation (Woodward, 2003). Therefore, one might claim, the ideas underlying Schaffer’s ground-theoretic account of constitutive social construction – which invokes structural equation models for grounding – can be extended to an account of causal social construction which invokes structural equation models for causation. And so those ideas, one might claim, can be extended to an account of the general relation of social construction: just use structural equation models for all three. Therefore, one might conclude, Schaffer’s approach can be used to unify the different social construction relations.

There are two problems with this objection. First, Schaffer does not take grounding and causation to be unified under a single relation. They are, for Schaffer, distinct relations of dependency (2016, p. 50): despite being analogous in some informative respects, no one relation unifies them. So Schaffer does not seem to have the resources needed to unify grounding and causation into a single relation which could, then, support an account of the general relation of social construction. Therefore, even if the above objection is right to claim that structural equation models can be used to account for constitutive social construction – in accord with Schaffer Social Grounding – and causal social construction both, the objection is wrong to conclude that therefore, Schaffer’s approach can be used to unify the different social construction relations. That conclusion is in tension with Schaffer’s own approach to the relations of grounding and causation.

Second, contrary to what it purports to show, the objection implicitly provides an argument for Social Interventionism over Schaffer Social Grounding. For suppose that the objection is correct in claiming that structural equation models can be used to give accounts of constitutive social construction and causal social construction. Then to account for those social construction relations, there is no need to make any appeals to grounding at all. The ground-theoretic element of Schaffer's approach is not doing any real work, in other words. So it can be dropped – and in fact, it should be dropped, since it is incompatible with the non-recursive models discussed in Section 3. So the objection, by highlighting the fact that Schaffer appeals to structural equation models when giving an account of grounding, highlights the fact that structural equation models can be used to give an account of social construction directly; no detour through grounding is needed. Hence, the objection ultimately provides another source of support for Social Interventionism over ground-theoretic approaches to social construction.

Before concluding, one final attractive feature of Social Interventionism is worth mentioning: Social Interventionism strongly 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, body dissatisfaction can be reduced.

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

## 5 Conclusion

Ground-theoretic accounts of constitutive social construction face the circle problem. That is, those accounts cannot accommodate the circles of constitutive social construction which many special science models posit. For grounding is acyclic, but as those models show, constitutive social construction is not.

Social Interventionism avoids the circle problem. For according to Social Interventionism, one fact socially constructs another just in case, very roughly put, (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. More simply: according to Social Interventionism, social construction is a matter of counterfactual dependency patterns—of the sort which structural equation models describe—obtaining among social facts.

In this paper, I have given several different arguments for Social Interventionism. It avoids the circle problem. It respects the empirical models, of constitutive social construction, that special scientists employ. It provides a unified account of the general relation of social construction. It supports an account of what distinguishes more specific social construction relations: constitutive social construction, causal social construction, and so on. And it supports amelioration.

There are two lessons which the circle problem, and Social Interventionism, can teach. First, and more specifically: avoid tying social construction to grounding specifically. Tie social construction directly to patterns of counterfactual dependency, as represented by structural equation models, instead.

Second, and more generally: when doing social metaphysics, it is worth attending to the sorts of empirical models which appear in the special sciences. For a large part of what we learn, from special science research, is how social construction works. Very often, models of social phenomena are best interpreted as describing cases of social construction. Those models are empirically well-supported, scientifically rigorous, and extremely informative. They provide, therefore, a valuable guide for social metaphysics theorizing.

## Acknowledgements

[removed for anonymous review]



## References

- Barnes, E. (2014). Going beyond the fundamental. *Proceedings of the Aristotelian Society*, 114, 335–351.
- Barnes, E. (2016). *The minority body*. New York, NY: Oxford University Press.
- Bennett, K. (2017). *Making things up*. Oxford: Oxford University Press.
- Cameron, R. P. (2008). Turtles all the way down. *The Philosophical Quarterly*, 58(230), 1–14.
- Chang, H.-T., Chi, N.-W., & Miao, M.-C. (2007). Testing the relationship between three-component organizational/occupational commitment and organizational/occupational turnover intention using a non-recursive model. *Journal of Vocational Behavior*, 70, 352–368.
- Collins, P. H. (2019). *Intersectionality as critical social theory*. Durham, NC: Duke University Press.
- Colyvan, M. (2002). Mathematics and aesthetic considerations in science. *Mind*, 111(441), 69–74.
- Cook, E. A., & Wilcox, C. (1991). Feminism and the gender gap. *The Journal of Politics*, 53(4), 1111–1122.
- Craver, C. F. (2007). *Explaining the brain*. New York, NY: Oxford University Press.
- Crenshaw, K. (1991). Mapping the margins. *Stanford Law Review*, 43(6), 1241–1299.
- Epstein, B. (2015). *The ant trap*. New York, NY: Oxford University Press.
- Fine, K. (2010). Some puzzles of ground. *Notre Dame Journal of Formal Logic*, 51(1), 97–118.
- Fingeret, M. C., & Gleaves, D. H. (2004). Sociocultural, feminist, and psychological influences on women’s body satisfaction. *Psychology of Women Quarterly*, 28, 370–380.
- Griffith, A. M. (2018a). Social construction. *Philosophical Studies*, 175, 241–260.
- Griffith, A. M. (2018b). Social construction and grounding. *Philosophy and Phenomenological Research*, 97(2), 393–409.
- Halpern, J. Y., & Pearl, J. (2005a). Causes and explanations: A structural-model approach. Part I: Causes. *The British Journal for the Philosophy of Science*,

- 56, 843–887.
- Halpern, J. Y., & Pearl, J. (2005b). Causes and explanations: A structural-model approach. Part II: Explanations. *The British Journal for the Philosophy of Science*, 56, 889–911.
- Harnois, C. E. (2005). Different paths to different feminisms? *Gender & Society*, 19(6), 809–828.
- Haslanger, S. (2000). Gender and race. *Noûs*, 34(1), 31–55.
- Haslanger, S. (2012). *Resisting reality*. New York, NY: Oxford University Press.
- Haslanger, S. (2016). What is a (social) structural explanation? *Philosophical Studies*, 173, 113–130.
- Heim, L., & Schaal, S. (2014). Rates and predictors of mental stress in rwanda. *International Journal of Mental Health Systems*, 8(37), 1–9.
- Hitchcock, C. (2007). Prevention, preemption, and the principle of sufficient reason. *The Philosophical Review*, 116(4), 495–532.
- Jenkins, C. S. (2011). Is metaphysical dependence irreflexive? *The Monist*, 94(2), 267–276.
- Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). New York, NY: The Guilford Press.
- Lange, M. (2014). Aspects of mathematical explanation. *The Philosophical Review*, 123(4), 485–531.
- Mallon, R. (2017). Social construction and achieving reference. *Noûs*, 51(1), 113–131.
- Melia, J. (2002). Response to colyvan. *Mind*, 111(441), 75–79.
- Mikkola, M. (2015). Doing ontology and doing justice. *Inquiry*, 58(7-8), 780–805.
- Nelson, J. A., Liss, M., Erchull, M. J., Hurt, M. M., Ramsey, L. R., Turner, D. L., & Haines, M. E. (2008). Identity in action. *Sex Roles*, 58, 721–728.
- Noar, S. M., & Morokoff, P. J. (2002). The relationship between masculinity ideology, condom attitudes, and condom use stage of change. *International Journal of Men’s Health*, 1, 43–58.
- Pearl, J. (2021). *Causality: Models, reasoning, and inference*. New York, NY: Cambridge University Press.
- Rabin, G. O., & Rabern, B. (2016). Well founding grounding grounding. *Journal of Philosophical Logic*, 45, 349–379.

- Rhodebeck, L. A. (1996). The structure of men's and women's feminist orientations. *Gender & Society*, 10(4), 386–403.
- Ritchie, K. (2020). Social structures and the ontology of social groups. *Philosophy and Phenomenological Research*, 100(2), 402–424.
- Rosen, G. (2010). Metaphysical dependence. In B. Hale & A. Hoffmann (Eds.), *Modality* (pp. 109–135). New York, NY: Oxford University Press.
- Saatsi, J. (2016). On the 'indispensable explanatory role' of mathematics. *Mind*, 125(500), 1045–1070.
- Schaffer, J. (2009). On what grounds what. In D. Chalmers, D. Manley, & R. Wasserman (Eds.), *Metametaphysics* (pp. 347–383). New York, NY: Oxford University Press.
- Schaffer, J. (2016). Grounding in the image of causation. *Philosophical Studies*, 173, 49–100.
- Schaffer, J. (2017). Social construction as grounding. *Philosophical Studies*, 174, 2449–2465.
- Schick, V. R., Zucker, A. N., & Bay-Cheng, L. Y. (2008). Safer, better sex through feminism. *Psychology of Women Quarterly*, 32, 225–232.
- Thomasson, A. L. (2003). Realism and human kinds. *Philosophy and Phenomenological Research*, 67(3), 580–609.
- Wilhelm, I. (2021a). The counteridentical account of explanatory identities. *The Journal of Philosophy*, 118(2), 57–78.
- Wilhelm, I. (2021b). Explanatory priority monism. *Philosophical Studies*, 178, 1339–1359.
- Wilson, A. (2018). Metaphysical causation. *Noûs*, 52(4), 723–751.
- Witt, C. (2011). *The metaphysics of gender*. New York, NY: Oxford University Press.
- Woodward, J. (2003). *Making things happen*. New York, NY: Oxford University Press.
- Woodward, J., & Hitchcock, C. (2003a). Explanatory generalizations, Part I. *Noûs*, 37(1), 1–24.
- Woodward, J., & Hitchcock, C. (2003b). Explanatory generalizations, Part II. *Noûs*, 37(2), 181–199.
- Zaky, H. H. M., Armanious, D. M., & Kalliny, M. A. (2024). Applying the

structural equation model approach to study the simultaneous relationship between women's empowerment and mental disorder in egypt. *Philosophy and Phenomenological Research*, 24(26), 1–13.