On the Metaphysics of Voting

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Abstract: Discussions of the ethics of voting often proceed by making metaphysical assumptions. It is widely assumed (a) that votes determine electoral outcomes by causing them and (b) that an individual vote plays no role in determining an election's winner when the margin of victory is greater than one. However, both of these assumptions are false. Our votes determine who wins an election by metaphysically grounding that result, not causing it. Moreover, by thinking about how grounding works in general, we can see that joint grounding does not involve individual contributions adding up to an effect and that overdetermination with respect to grounding does not make each full ground any less responsible for what it brings about. These observations motivate a picture on which our individual votes can be metaphysically responsible for a candidate's victory, no matter the final tally—and hence we can be morally responsible for casting those votes, even in a landslide.

1. A Common Line of Reasoning

"What's the point of voting? If the election is decided by more than one vote, then your vote plays no role in determining a winner: the winner would have been the same had you voted the other way, or not voted at all. And when the electorate is large, the chance of the election's being decided by one vote is vanishingly small. So given the costs that come with casting a vote, you shouldn't bother voting."[1]

This depressingly familiar line of reasoning addresses a normative question: "Should I vote?" But it approaches that normative question by taking for granted an answer to a metaphysical question: "When does my vote play a role in determining the winner of an election (or other voting procedure)?" It is this subsidiary metaphysical question that shall be our main focus, for I think that question has been entirely misconceived. And when we bring the proper way of understanding that question into view, we can see that the familiar line of reasoning answers this question in a confused manner: its appeal to what would have happened had we voted differently or not at all is beside the point. One's vote can help determine the winner even when counterfactually varying how and whether one votes has no effect on the outcome. Indeed, there is a certain

[1] The locus classicus for an argument of this form is Downs 1957. However, at this point the reasoning has detached from its original source and drifted into the general intellectual stratosphere; for example, my sixteen-year-old son recently offered it up to me as a reason not to vote in Massachusetts, and I am confident he has never read Downs' book. The literature on Downs-style reasoning is too large to cite in its entirety, but some notable contributions include Tullock 1967, Riker & Ordeshook 1968, Ferejohn & Fiorina 1974, Meehl 1977, G. Brennan & Lomasky 1993, Goldman 1999, Dowding 2005, Tuck 2008, Guerrero 2010, J. Brennan 2011, Beerbohm 2012, G. Mackie 2014, G. Brennan & Sayre-McCord 2015, Maskivker 2019, Barnett 2020, Abizadeh 2022, Liron & Enoch 2023, and Destri & Burelli 2025, among many others.

sense in which one's vote plays just as much a role in determining an election's winner when the margin of victory is one vote as it does when the final margin is more than that. And even if the margin of victory is a single vote, neither your vote nor any other vote decides the matter: there is no such thing as a "decisive" or "pivotal" vote in a majority-rule election with multiple voters. These points about how votes determine electoral winners in turn have bearing on the ethics of bothering to vote in the first place.

2. Electoral Determination: Grounding, Not Causation

To simplify our discussion, let us start by considering a majority-rule voting procedure with two options. (Eventually we shall discharge this assumption.) A number of people each have the opportunity to cast a single vote for one of two options, where those options might be two candidates for a position, or two policies to be enacted, or two verdicts in a trial, or simply two ways to spend the afternoon together as a family. If one option has a majority of votes in its favor, it is the winner. If there is a tie among the votes, there is—at least as far as this procedure is concerned—no winner.

Now suppose these people each either cast a vote or decide to abstain from voting, and one option is the winner. When is it the case that one of those votes (or abstentions from voting) determines, or plays a role in determining, that winner? Put differently, when does a given vote make it the case, or help make it the case, that a given option is the winner? When is a given vote responsible, or in part responsible, for that option's being the winner? When is some option the winner because, or in part because, a certain vote was cast in a certain way? This is our metaphysical question, asked in a number of what I shall assume are equivalent ways. Before we can answer that question, though, we need to ask a meta-question: what sort of determination (or makes-the-case, or is-responsible-for, or—in the converse direction—obtains-because-of) relation is at issue when we ask our metaphysical question?

As far as I can tell, it is universally assumed in the absurdly voluminous voting literature that the type of determination at issue is causation: when one or several votes determine a winner, it or they make that option the winner by *causing* it to be the winner, by being *causally responsible* for that outcome—or so, at least, most authors seem to assume.[2] But I think we should not be so quick to take on board such an assumption simply

[2] For instance, all of the works cited in the previous footnote assume a causal relation between votes and electoral outcomes. Outside of the voting literature, however, authors sometimes depart from this assumption. For instance, in the social-metaphysics

because it is widely made. Metaphysics—the branch of philosophy devoted to studying what there is, in the most general sense possible—is currently undergoing a revolution. At the heart of this revolution is a focus on determination and dependence relations other than causation. In particular, a number of authors have been stressing the importance, for metaphysics in particular and for philosophy in general, of theorizing in terms of a form of non-causal determination (or constitutive explanation) that has come to be known as *grounding*.[3] This is the relation—I shall assume it is a relation—that is at issue when we say that Xanthippe is a widow because Socrates died, or that Socrates' death made it the case that Xanthippe is a widow, or that Socrates' death is responsible for Xanthippe's being a widow. These are perfectly ordinary determination claims that we all would accept, but they cannot be construed as causal claims. There is no causal law underlying the relation between Socrates' death and Xanthippe's widowhood that we can empirically investigate, no mechanism at work when the former has bearing on the latter, no distinctive necrotic particles that somehow exert a special kind of force on corresponding widowhood particles. Similarly, when we say that someone is in the room because I am in the room, or that an act was wrong because it gratuitously endangered many people's lives, or that some statute is no longer legally binding because a given judge struck it down, we are not using 'because' in a causal sense, but rather are using it to express a grounding claim: the fact that someone is in the room is grounded in the fact that I am in the room, the fact that the act was wrong is grounded in the fact that the act gratuitously endangered the lives of many people, the fact that the statute is no longer legally binding is grounded in the fact that such-and-such judge made such-and-such ruling on such-and-such occasion.[4]

Now, widespread attention to the distinction between uses of 'because', 'makes the case', 'is responsible for', and similar expressions to pick out causation and uses of those words to pick out grounding is a relatively recent phenomenon in philosophy. Moreover, attention to that distinction has not yet spread to other disciplines. So when authors in the voting literature have assumed that some votes' determining a winner is a

literature, Epstein (2014, chs. 15–16) explicitly takes the relation between individual-level votes and group-level electoral outcomes to be non-causal. (However, he doesn't fill in the details of how that relation works, as his main focus is on how votes and electoral outcomes bear on group action and group intention.)

[3] Particularly influential here have been Fine 2001, 2012a; Schaffer 2009; and Rosen 2010. For overview of the eruption of work on grounding that has ensued, see Raven 2020.

[4] Throughout this essay, I assume the relata of the grounding relation are facts, but nothing rests on this assumption. If you are suspicious of an ontology of facts, feel free to translate every claim I make of the form "The fact that p is grounded in the fact that q" into an equivalent claim of the form "p because q," which makes no reference to facts.

matter of the former causing the latter, it is likely they have not considered the alternative hypothesis that this determination relation is instead grounding. And regardless of what *they* have assumed, *we* need not be bound by their assumptions. So let us ask: is the determination relation at issue when some people's votes on some matter determine a winner a matter of causation, or grounding, or perhaps some other relation entirely?

It will help to switch temporarily to an easier and less politically fraught case. Suppose a number of people are in a room, and over half those people are right-handed. Then the facts about which people are in the room and whether each is right-handed together determine the fact that a majority of people in the room are right-handed. Is this determination relation causation, grounding, or neither? It should be patently obvious, I take it, that we are dealing with a paradigm case of grounding here. Presence-in-a-room and handedness facts do not exert causal influence on facts about whether there is a majority of a certain sort. Instead, those facts about who is in the room and their handedness *make it the case* that a majority of people in the room are right-handed, in exactly the same manner in which a given person's being in the room *makes it the case* that there is someone in the room—by grounding that fact, not causing it. After all, there is no time lag between the obtaining of the (determining) facts about who is in the room and what hand they use and the obtaining of the (determined) fact about whether a majority of people in the room are right-handed. And, at least in paradigm cases, causation is a diachronic process in which causes temporally precede their effects, whereas grounding can be either synchronic or diachronic.[5] Moreover, although philosophers are as divided about the nature of causation as they are about any other central topic in philosophy, many accounts of causation in some way tie causation to laws of nature, or underlying mechanisms, or the transferal of conserved quantities—none of which appear to be involved when the presence-in-the-room and handedness facts make it the case that a majority of people in the room are right-handed.

But if the facts about who is present in a room and whether they are right-handed ground (rather than cause) the fact that a majority of people in that room are right-handed, surely the facts about who voted and which way they voted ground (rather than cause) the fact that a majority of the votes cast were for a given option. As we are focusing on a majority-rule voting procedure, the fact that a majority of votes cast were for

[5] Some authors in the grounding literature hold that grounding is always synchronic relation between items obtaining at the same time, but this is a mistake: some grounding relations are diachronic. For instance, the fact that I made a promise today can ground the fact that I have a reason tomorrow to pick you up at the airport.

a given option in turn grounds the fact that the option in question was the winner. And since—as I shall assume—grounding is a transitive relation,[6] it follows that the facts about who voted and which way they voted ground the fact that such-and-such option is the winner. So the determination relation at issue when we ask our metaphysical question about when a given vote helps determine a winner is grounding.

Or maybe not. Perhaps although the type of determination at issue isn't causation, it also isn't grounding. Philosophers love to make distinctions, and some authors in the ever-increasing grounding literature make a distinction between grounding and metaphysical explanation,[7] or between grounding and non-causal dependence,[8] or between why-grounding (the type on which we have been focusing) and how-grounding,[9] or . . . the list goes on. Might the relation between the facts about how people voted and the fact that one option is a winner be one of these other non-causal relations that have been distinguished from grounding?

I myself am skeptical of nearly all of these distinctions. As I understand the notion, talk of grounding is just another way of referring to the relation at issue when we say that there is someone in the room because I am in the room, rather than a way of referring to an additional relation that stands in some mysterious "backing relation" to that explanatory relation between my being in the room and there being someone in the room, as authors who distinguish grounding from metaphysical explanation usually hold. So I reject the first of these would-be distinctions.[10] More generally, I hold that insofar as these other relations count as genuine forms of non-causal determination, there are going to be various entailment relations between instances of these other relations and instances of grounding that put significant theoretical pressure on us to take these other relations to be either identical to or definitionally linked to grounding.[11]

And anyway, it doesn't much matter for my purposes whether the relation between the voting facts and the winner fact is grounding or instead some other grounding-like relation (or connective): any sort of non-

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6 Even if there are rare exceptions to the transitivity of grounding, in which fact *f* partially grounds fact *g*, and fact *g* partially grounds fact *h*, but fact *f* does not partially ground fact *h*, the case at hand is not plausibly such an exception.

7 See Audi 2012, Schaffer 2012, and Thompson 2016, among others.

8 See Wygoda Cohen 2021.

9 See Litland 2013 and Richardson 2020.

10 Thus, in Michael J. Raven's (2015, 326) now widespread terminology, I count as a "unionist" who identifies grounding and metaphysical explanation, rather than a "separatist" who distinguishes them.

11 See Berker 2018 for this general form of argument. Such a definitional link could involve the other relation being defined in terms of grounding, or grounding being defined in terms of it, or both being defined in terms of a third determination relation. Examples of the entailment relations that motivate such a definitional link include a mixed asymmetry principle on which fact *f* 's (in part) grounding fact *g* entails that *g* doesn't (in part) non-causally determine *f* in one of these other ways; why would the two relations dodge each other in this way unless there is some sort of deep connection between them?

causal glue that counts as a type of determination (or explanation, or building relation) will serve my purposes.[12] All the other candidates for varieties of non-causal determination that might be distinguished from grounding share the relevant characteristics of grounding on which my central proposal shall rest. So fans of one of these other proposals can feel free to do a find and replace on all future occurrences of the word 'grounding' and related expressions, swapping in locutions picking out their own preferred form of non-causal glue. However, I shall continue to formulate our discussion as if the determination relation at issue were grounding, both because I think that is the correct relation in the case at hand, and because formulating things in terms of grounding will allow me to state the main features of my approach in a streamlined manner.

3. The Irrelevance of Counterfactuals

Recall the metaphysical question that is our primary focus: when does your vote play a role in determining the winner of some voting process? We have just established that the determination relation at issue is grounding (or a close cousin of grounding; hereafter I drop that qualification). That conclusion is enough to show that the standard way of answering this question, via an appeal to which option would be the winner if you had not voted the way you did, is badly mistaken.

There are many controversies about the nature of grounding. One thing, however, is almost universally agreed upon by everyone who works on the topic: counterfactual reasoning is a terrible way to test whether a grounding claim holds. It is just not true that

(*) [p] grounds [q] if and only if, were it not the case that p, then it wouldn't be the case that q.

(Here and elsewhere, I follow standard conventions in using '[p]' as shorthand for 'the fact that p'.) There are numerous counterexamples to this biconditional, in both directions. Suppose you and I are in a room together. The fact that I am in the room grounds the fact that there is someone in the room. And yet it is not the case that if I weren't in the room, then there wouldn't be someone in the room, because—we can suppose—you would still be in the room if I weren't there. So the left-to-right direction of (*) fails. Suppose a form of utilitarianism on which an act is morally required iff it maximizes happiness is true, and I perform an act that both maximizes happiness and is morally required. Then the following counterfactual holds: if my act hadn't

[12] The 'building relation'-terminology comes from Bennett 2017.

been morally required, it wouldn't have maximized happiness. But we don't want to say that the fact that my act is morally required grounds the fact that it maximizes happiness—that my act maximizes happiness because it is morally required. (Instead, we want to say the reverse: my act is morally required because it maximizes happiness.) So the right-to-left direction of (*) also fails.

However, the standard approach to our metaphysical question answers that question precisely by invoking the left-to-right direction of our bogus biconditional (*). We are asked to imagine a case in which you have cast a vote and one option wins by a margin greater than one. First the following counterfactual is established: if you hadn't voted as you did, then that option would still be the winner. So it's not the case that if you hadn't vote as you did, then that option would not be the winner. From this it is taken to follow that the fact you voted as you did didn't determine, or help determine, the fact that the such-and-such option is the winner. However, once we appreciate that the form of determination at issue is grounding, we can see that this last inference is fallacious. When two of us are in a room together, counterfactually varying whether or not I am in the room does not have an impact on whether or not there is someone in the room, and yet it is still the case that my being in the room grounds the fact that there is someone in the room. So even if, when a voting procedure is decided by a margin of greater than one, counterfactually varying whether and how I voted does not have an impact on which option is the winner, it still might be the case that the fact that I voted as I did plays a role in grounding the fact that a given option is the winner. Counterfactuals are too crude a tool to track non-causal forms of determination such as grounding.

4. Interlude: Two Observations about Grounding

If we can't use counterfactual reasoning to figure out the situations in which your vote helps make it the case that one option is the winner, how do we approach that question? Before addressing this issue head-on, it will help to make some observations about the nature of grounding that will prove useful in what follows.

With any determination relation, we can draw a crucial distinction between *joint determination* and *overdetermination*—which, when the determination relation at issue is grounding, takes the form of a distinction between *joint grounding* and *overgrounding*.[13] When several facts together make something the case, we have an

[13] I prefer the term 'overgrounding' (which I take from Bader 2017, 118) to the more common 'overdetermined grounding' because the latter, when read literally, implies that it is the obtaining of a grounding relation between grounds and grounded that is

instance of joint grounding. For example, the fact that Socrates is dead, the fact that Xanthippe was married to Socrates when he died, the fact that Xanthippe has not remarried since then, and the fact that Xanthippe is a woman jointly ground the fact that Xanthippe is a widow: these four facts need to work together to make it the case that Xanthippe is a widow. As it is put, each of these four facts *partially grounds* the fact that Xanthippe is a widow, and together they *fully ground* that fact. By contrast, when several facts each on their own fully make something the case, and do so independently of one another, we have an instance of overgrounding (or metaphysical overdetermination, as it is often called).[14] For example, the fact that I am in the room and the fact that you are in the room overground the fact that there is someone in the room: each on its own, via a separate path of metaphysical determination, makes it the case that there is at least one person in the room. As the examples I have been providing make clear, cases of over- and joint grounding are rife, and there is a clear intuitive difference between the grounding structure in each case. We can even have cases involving both over- and joint grounding—cases of *over-joint-determination*, to give it a name. For example, consider the fact that there is someone right-handed in the room: it might be jointly grounded in the fact that I am in the room and that I am right-handed, while also being independently jointly grounded in the fact that my son is in the room and that he is right-handed.

Now suppose two facts together make something the case. It is not plausible that each of these two facts is "one-half responsible" for making that thing the case. Joint grounding is not a matter of each partial ground contributing a metaphysical push in a given direction that together add up to some metaphysical effect. Although such a force-vector model might be apt in (at least some, perhaps not all) cases of causal determination, it is a bizarre and unnatural picture to hold with regard to non-causal forms of determination such as grounding. More generally, I put forward

> *Observation 1*: When *n* facts jointly ground the fact that *p*, we do not split up the grounding contribution made by each of those facts; in particular, it is not the case that each of the *n* facts is 1/*n*th responsible

overdetermined, whereas what we want to be overdetermined is the grounded fact itself. (I have similar reservations about the term 'overdetermined causation'.)

[14] I include the 'independently'-clause in my characterization of overgrounding because it takes more than there being two distinct facts, *f* and *g*, that each fully ground fact *h* for *h* to be overgrounded. Suppose that, in addition, *f* fully grounds *g*, and it is only because *f* fully grounds *g* and *g* fully grounds *h* that *f* fully grounds *h*; transitive structures of this sort do not involve overdetermination. Instead, what we need for *f* and *g* to overground *h* is for *f* and *g* to do their grounding work *independently* of each other: via two distinct paths from grounds to grounded.

for making it the case that *p*.

This observation can be supported by our strong intuitions about how grounding works in particular cases. For instance, we are incredibly reluctant to say that Socrates' being dead is one-fourth responsible for Xanthippe's being a widow. But there are also serious technical problems that would result if one were to deny the observation, due to the transitivity of grounding. We are supposing that Xanthippe's being a widow is jointly grounded in four facts: that Socrates is dead, that Xanthippe was married to Socrates when he died, that Xanthippe has not remarried since then, and that Xanthippe is a woman. Let us suppose that Xanthippe's having been married to Socrates when he died is itself jointly grounded in two facts: that Socrates and Xanthippe took part in such-and-such marriage ceremony on such-and-such occasion and that they never divorced afterwards. It follows from grounding's transitivity that Xanthippe's being a widow is also jointly grounded in five facts: that Socrates is dead, that Socrates and Xanthippe took part in such-and-such marriage ceremony on such-and-such occasion, that they never divorced afterwards, that Xanthippe has not remarried since Socrates' death, and that Xanthippe is a woman.[15] So if we reject our first observation, we are saddled with the absurd result that Socrates' being dead is both one-fourth and one-fifth responsible for Xanthippe's being a widow.[16] In cases of joint grounding, we do not divvy up metaphysical responsibility for what is grounded in this artificial manner; instead, the joint grounds all together make something the case without each making an individual contribution toward that metaphysical effect.

Something similar holds in cases of overgrounding: here as well we should not divide up metaphysical responsibility for the overdetermined fact among its independent grounds. Suppose I am alone in a room. My being in the room is fully responsible for the fact that someone is in the room. If you walk into the room, it is now overdetermined that someone is in the room. But it would be ridiculous to say that my being in the room has now become only "half responsible" for the fact that someone is in the room, whereas before it was fully responsible for that fact: your presence in the room has in no way diminished the degree to which my presence

[15] This result follows from the principle Gideon Rosen (2010, 116) calls 'strong transitivity' and Kit Fine (2012b, 22) calls 'Cut' (short for 'Cumulative transitivity'), on which if facts *ff* ground fact *g*, and *g* together with facts *gg* ground fact *h*, then *ff* together with *gg* ground *h*. (I myself think a correct formulation of these principles requires us to add, as a third conjunct in the antecedent, that *g* is not among *gg*.) Note that we don't need such a transitivity principle to hold without exception in order to generate the problematic result, provided it holds in the particular case at hand, as surely it does.

[16] For a similar argument in a causal context, see Hall 2020, 205–7.

in the room grounds the fact that someone is in the room. More generally, we can make

> *Observation 2*: When n facts (or pluralities of facts) overground the fact that p, we do not split up the grounding contribution made by each of those facts (or pluralities of facts); in particular, it is not the case that each of the n facts (or pluralities of facts) is $1/n$th responsible for making it the case that p.

I have formulated Observations 1 and 2 in terms of a denial of certain ways of cardinally ranking one fact's metaphysical responsibility for another because I find doing so makes the point particularly vivid. However, parallel points also hold with regard to ordinal rankings. A merely comparative version of Observation 1 is extremely plausible: when m facts jointly ground the fact that p, n facts jointly ground the fact that q, and $m < n$, it is not thereby the case that each of those m facts is "more responsible" for making it the case that p than each of the n facts is for making it the case that q. (The fact that Socrates and Xanthippe took part in such-and-such marriage ceremony on such-and-such occasion is not "more responsible" for making it the case that Socrates and Xanthippe were married when he died than that latter fact is for making it the case that Xanthippe is a widow.) And a merely comparative version of Observation 2 is equally plausible: when m facts (or pluralities of facts) overground the fact that p, n facts (or pluralities of facts) overground the fact that q, and $m < n$, it is not thereby the case that each of those m facts (or pluralities of facts) is "more responsible" for making it the case that p than each of the n facts (or pluralities of facts) is for making it the case that q. (The fact that I am in the room is not "more responsible" for making it the case that there is someone in the room when I am in the room with one person than it is when I am in the room with two people.) Taken together, Observations 1 and 2 and their ordinal variants should, I think, make us suspicious of the very idea that metaphysical responsibility comes in degrees or is gradable. But I don't need as strong a claim as that in what follows: even if it does make sense to assign degrees of metaphysical responsibility or to make comparative judgments along that dimension, we should not do so in the ways denied by Observations 1 and 2 and their merely comparative cousins.

5. How Your Vote Determines a Winner

With these observations in hand, let us return to the issue of how and when individual votes play a role in determining the winner of an election or other voting procedure. I start by considering a simple case designed to bring out the essential components of my proposal. Then I extend the proposal to more complex cases.

5.1. The Basic Proposal

Suppose five people—call them C_1, C_2, C_3, C_4, and C_5—are on a committee that must decide, via a majority vote from which abstention is not allowed, whether or not to pass some measure. Four of them—C_1, C_2, C_3, and C_4—vote 'Yes', and one—C_5—votes 'No'. So the measure has passed. What made this the case? The fact that a majority of the committee members voted 'Yes'. And what made that the case? The fact that at least three committee members voted 'Yes'. And what made that the case? Here, plausibly, we have a case of over-joint-determination. There are four collections of facts that fully ground the fact that at least three committee members voted 'Yes', and do so independently of each other, namely:

(i) [C_1 voted 'Yes'], [C_2 voted 'Yes'], [C_3 voted 'Yes'];

(ii) [C_1 voted 'Yes'], [C_2 voted 'Yes'], [C_4 voted 'Yes'];

(iii) [C_1 voted 'Yes'], [C_3 voted 'Yes'], [C_4 voted 'Yes'];

(iv) [C_2 voted 'Yes'], [C_3 voted 'Yes'], [C_4 voted 'Yes'].

So if you are C_1, your 'Yes' vote—or, more precisely, the fact that you voted 'Yes'—was an indispensable part of three of four independent full grounds for the fact that at least three committee members voted 'Yes' (and hence, by the transitivity of grounding, an indispensable part of three of four independent grounds for the fact that the measure passed). Moreover, in accordance with our first observation, your vote is not "one-third responsible" for the grounding contribution made by each of those three full grounds of which it is a part. When three facts team up to make something the case, we do not divide their contributions by three. Nor, by our second observation, is each of the three full grounds that includes your vote "one-fourth responsible" for at least three committee members having voted 'Yes'. Overdetermination does not attenuate metaphysical responsibility. Collections of facts (ii), (iii), and (iv) no more diminish collection of facts (i)'s responsibility for its being the case that at least three committee members voted 'Yes' than your presence in the room diminishes my presence in the room's responsibility for its being the case that there is someone in the room. Your vote did indeed help determine a winner—three times over. But only with the assistance of other votes, and with the assistance of different votes in each of these three instances—on its own it was idle.

Notice, moreover, that your vote helped determine a winning verdict about whether the measure is

passed even though it fails the counterfactual test employed by our familiar line of reasoning about the efficacy of individual votes. If you hadn't voted 'Yes', the measure still would have passed, because the 'Yes' votes by C_2, C_3, and C_4 would still have been enough to secure a majority. However, it is precisely in cases involving overdetermination where counterfactual tests for metaphysical determination yield false negatives, in which the test is failed and yet genuine determination occurs. When the two of us are in a room together for independent reasons, the counterfactual test spits out a negative verdict, since if I hadn't been in the room, there would still be someone in the room, but it is nevertheless the case that my being in the room grounds the fact that there is someone in the room. So given my suggestion that the voting case we have been considering involves metaphysical overdetermination, we should not be surprised that counterfactuals are an ineffective tool for tracking the determination relations at issue.

When initially sketching my proposal in the case at hand, I was a little coy about the overall grounding structure, in two ways. First, I claimed that the fact that a majority of the committee members voted 'Yes' made it the case that the measure passed, but I didn't specify whether that grounding relation is full or partial. Clearly, though, we have partial grounding here: it is not the fact that a majority of the committee members have voted 'Yes' on its own which fully grounds the fact that the measure passed, but rather that fact together with the fact that every committee member has voted. Suppose the committee decides that votes are to be cast by writing 'Y' or 'N' on a piece of paper. Four committee members quickly scribble down their votes—three 'Y's and one 'N'—but the final committee member is hemming and hawing, unsure which way to go. I put forward that the measure has not yet passed, even though a majority of the committee members have cast a 'Yes' vote. If a passing comet were to incinerate the entire committee before the fifth member came to a decision, the measure would never have passed. So in cases in which the measure does pass, we need an extra partial ground at this stage in the grounding hierarchy, namely the fact that all the votes are in. Second, we also need an additional partial ground at the next stage in the hierarchy. If we revert back to our original case, in which the measure passes by a 4–1 margin, it is not the fact that at least three committee members voted 'Yes' which, on its own, makes it the case that a majority of the committee members voted 'Yes', but rather that fact together with the fact that, in total, five committee members voted.

When we put these last two points together, the resulting grounding structure for our 4–1 voting case

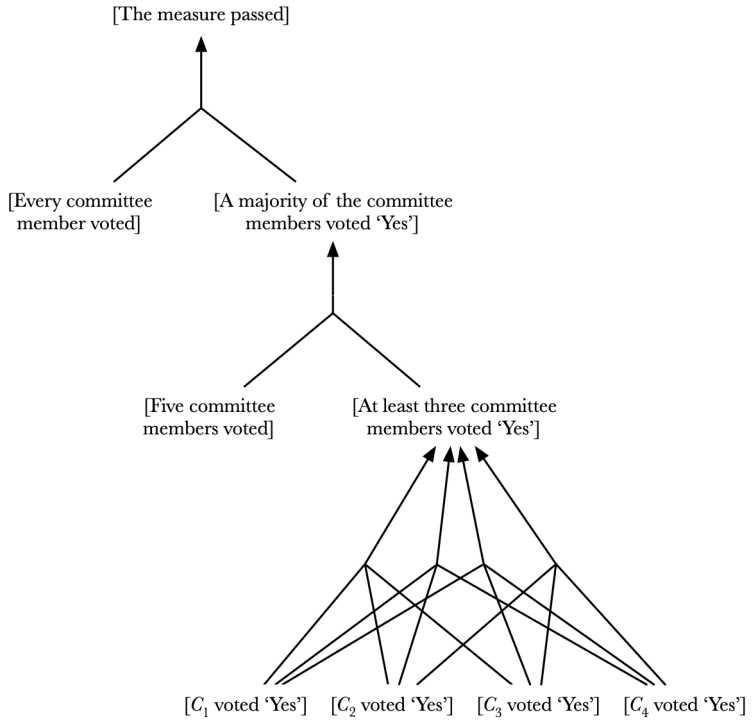


Figure 1.

is as given in Figure 1. Arrows represent full grounding relations, with an arrow pointing toward the fact grounded and away from the fact(s) that do the grounding.[17]

It will be useful to compare the grounding structure being posited in our simple voting case to the grounding structure that arises in a parallel case. Suppose five people—call them P_1, P_2, P_3, P_4, and P_5—are alone in a room, and four of them—P_1, P_2, P_3, and P_4—are right-handed, whereas one—P_5—is left-handed. So a majority of the people in the room are right-handed, and it is plausible that this fact is fully grounded in two facts, taken together: the fact that there are five people in the room and the fact that at least three people in the room are right-handed. That latter fact, in turn, is plausibly over-joint-grounded, with there being four different collections of three facts that independently fully ground it, namely the various ways of choosing three out of the four following facts: [P_1 is in the room and right-handed], [P_2 is in the room and right-handed], [P_3 is in the room and right-handed], and [P_4 is in the room and right-handed]. Figure 2 depicts the grounding structure I am claiming for this parallel case. The heart of my proposal involves stressing the analogy between these two

[17] To avoid clutter, I do not draw additional grounding relations arising from applications of transitivity principles. For example, in addition to the grounding relations depicted in Figure 1, it is also the case that [C_1 voted 'Yes'], [C_2 voted 'Yes'], [C_3 voted 'Yes'], and [Five committee members voted] together fully ground [A majority of the committee members voted 'Yes'].

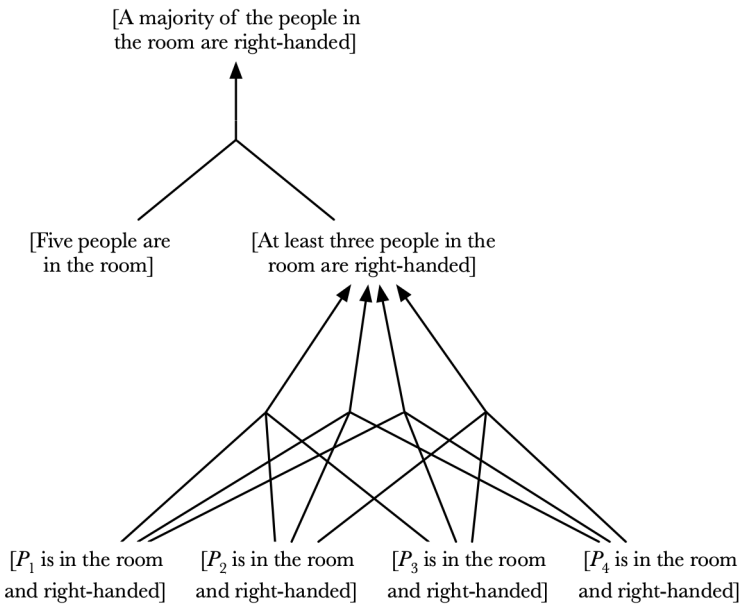


Figure 2.

cases. Just as it would be absolutely insane to insist that [P_1 is in the room and right-handed] plays no role in making it the case that a majority of people in the room are right-handed, so too is it absolutely insane to insist that [C_1 voted 'Yes'] plays no role in making it the case that the measure passed. And just as [P_1 is in the room and right-handed] only plays a role in determining the fact that a majority of people in the room are right-handed by teaming up with other facts to make this happen, so too does [C_1 voted 'Yes'] only play a role determining the fact that the measure passed by teaming up with other facts to make this happen. Finally, just as its being overdetermined that a majority of people in the room are right-handed does not undermine that ability of [P_1 is in the room and right-handed] to help determine this fact, so too does its being overdetermined that the measure passed not undermine the ability of [C_1 voted 'Yes'] to help determine this fact. Instances of over-joint-determination are a humdrum feature of ordinary life that also happen to be present whenever a vote is decided by more votes than needed.

5.2. Scaling Up

The proposal I am making here can easily be scaled up, in terms of both the number of votes cast and the margin of victory. Suppose now that our committee has 1,000 members (university committees really are getting out of control these days), and 560 vote 'Yes', while 440 vote 'No'. The measure passed in part because every committee member has voted and in part because a majority of the committee members voted 'Yes'.

And a majority of the committee members voted 'Yes' in part because 1,000 committee members voted and in part because at least 501 of the committee members voted 'Yes'. Finally, it is massively overdetermined that at least 501 of the committee members voted 'Yes'. Altogether, there are 560 choose 501 $= \frac{560!}{501!\,59!} \approx 4.22 \times 10^{80}$ combinations of 501 from among the 560 'Yes' votes that each constitute an independent full ground for the fact that at least 501 committee members voted 'Yes'—an astronomically large number that falls within current estimates for the number of atoms in the universe. (As we continue to scale up, this number quickly gets too large to calculate using readily accessible technology.) Moreover, if you are one of the 'Yes' voters, then your vote is a member of 559 choose 500 $= \frac{559!}{500!\,59!} \approx 3.78 \times 10^{80}$ of these independent full grounds, because that is the number of combinations of 500 from among the other 559 'Yes' votes that we can group together with your vote to make up a 501-member collection of 'Yes' votes. Hence the percentage of full grounds featuring your vote is (559 choose 500)/(560 choose 501) $= \left(\frac{559!}{500!\,59!}\right)/\left(\frac{560!}{501!\,59!}\right) = 501/560 \approx 89.5\%$. But again, by our second observation, this does not mean that the various full grounds featuring your vote were approximately 89.5% responsible for at least 501 committee members having voted 'Yes'. We do not split up the responsibility for that fact among each of its independent full grounds. Every combination of 501 from among the 560 'Yes' votes is fully responsible for making it the case that at least 501 committee members voted affirmatively, which in turn (together with another fact) makes it the case that a majority voted affirmatively, which in turn (together with another fact) makes it the case that the measure passed.

More generally, if m votes are needed for a majority in a majority-rule voting procedure (involving two options, with no possibility of abstention) and the winner in fact receives n votes, each vote for the winning option will be a part of $((n-1)$ choose $(m-1))/(n$ choose $m) = m/n$ of the independent grounds for the fact that the winning option is the winner. Since n is at least m (when the margin for victory is at its smallest, and hence every vote for the winner was needed to get a majority) and at most $2m-1$ (when the margin for victory is at its largest because everyone voted for the winning option, and an odd number of total votes were cast), m/n can vary from 100% inclusive on the upper end (when $n = m$) to 50% exclusive on the lower end (when $n = 2m-1$, and m approaches infinity). As the margin for victory increases, a given winning vote is featured among a lower percentage of the full grounds for the voting outcome, but never less than half of them. And as the

margin for victory decreases, a given winning vote is featured among a larger percentage of the full grounds for the voting outcome, where in the limiting case that percentage reaches 100% because there is only one independent full ground for the fact that a given option has won, as every vote for the winner was needed to secure a majority.

5.3. Scaling Down

It is worth pausing to explore how the proposal I am making works in that last case; in other words, it is worth pausing to explore how the proposal works when we scale down the margin for victory so that the number of votes cast for the winning option is the same as the number needed for a majority. It is in this case, and this case alone, that we fail to have metaphysical overdetermination. However, we still have joint determination, and how joint determination works in such a case has not been properly appreciated.

Suppose that, instead of a 4–1 margin, the measure being considered by our five-person committee passes by a 3–2 margin: C_1, C_2, and C_3 vote 'Yes', and C_4 and C_5 vote 'No'. The first two layers of our grounding structure remain the same: [The measure passed] is grounded in [Every committee member voted] and [A majority of the committee members voted 'Yes'], taken together; and [A majority of the committee members voted 'Yes'] is grounded in [Five committee members voted] and [At least three committee members voted], taken together. However, that last fact now has only one independent full ground at the next layer: the collection of facts [C_1 voted 'Yes'], [C_2 voted 'Yes'], and [C_3 voted 'Yes']. So the overall grounding structure is as depicted in Figure 3.

Advocates of the familiar line of reasoning are obsessed with this sort of case, because they believe such cases are the only way for C_1's vote to have an effect on the outcome of the voting process. I have already argued that this last thought is mistaken, because overdetermination does not obviate influence. But the way in which both advocates and opponents of the familiar line of reasoning usually describe cases like our one featuring a 3–2 margin reveals another mistaken thought. It is standard to refer to a case of this sort as one in which C_1's vote is "decisive" or "pivotal." But such terminology is badly confused. C_1's vote did not decide the outcome, for it only determined that outcome with the help of two other 'Yes' votes. Nor was C_1's 'Yes' vote the pivot upon which the overall vote swung: it played no more privileged a role than C_2's and C_3's 'Yes' votes did. Together, these three votes jointly determined the winning option, and no one vote on its own was decisive

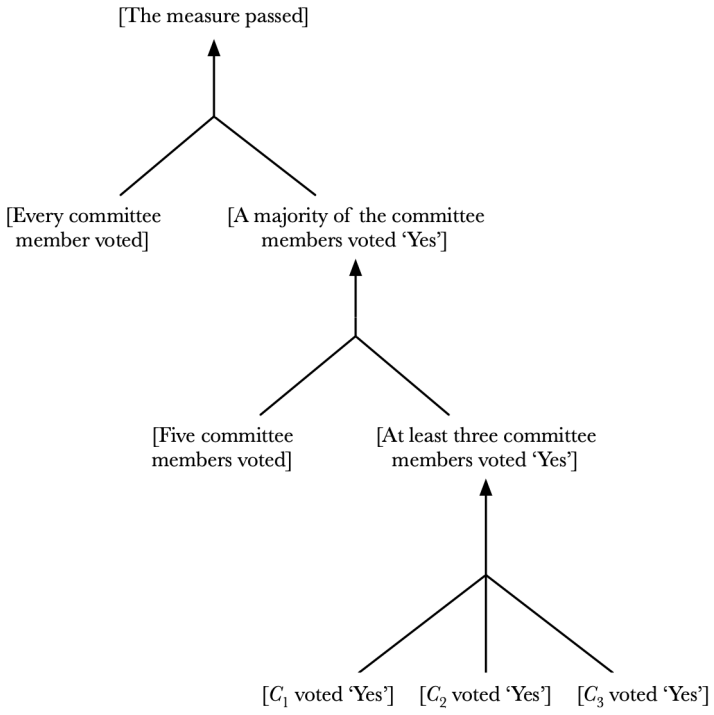


Figure 3.

or pivotal in securing that outcome.

Some who use the terminology of "decisive" or "pivotal" votes explicitly tell us that if one vote is decisive or pivotal in a majority-rule voting procedure, then every other vote for the winning option is also decisive or pivotal.[18] But this move is no way of rescuing that terminology. Being decisive or pivotal are comparative notions; they single out certain factors as being more important or crucial than others. We can't have nothing but pivots without anything rotating on those pivots, and—unless we are dealing with a case of overdetermination—it can't be that every one of several factors which led to some outcome was itself decisive in getting us there. "Why did we win the basketball game? Well, the shot at the end was decisive, and the steal just before that was decisive, and come to think of it the missed free throws a little earlier were decisive as well"—these are not the words of someone who understands what 'decisive' means. If every vote for a given option was needed to secure a majority, then no individual vote was decisive—instead, it was all of them together which decided the matter.

[18] See, for example, G. Mackie 2014, 23, and G. Brennan & Sayre-McCord 2015, 36.

5.4. Potential Complications

So far I have been working with a fairly natural account of what makes it the case that a majority of the committee members voted 'Yes', namely one on which—in our original scenario—that fact is made the case by [There are five committee members] and [At least three committee members voted 'Yes'], taken together. And I have been working with a fairly natural account of what makes it the case that at least three committee members voted 'Yes', namely one on which that fact is made the case by, for example, [C_1 voted 'Yes'], [C_2 voted 'Yes'], and [C_3 voted 'Yes'], taken together. But in both instances there is room to doubt the account I have been assuming and to replace it with a more complicated proposal. For instance, maybe instead [A majority of the committee members voted 'Yes'] is fully grounded in [The number of committee members who voted 'Yes' is greater than the number of committee members who didn't]. And maybe instead [At least three committee members voted 'Yes'] is fully grounded in [C_1 is a committee member and voted 'Yes'], [C_2 is a committee member and voted 'Yes'], and [C_3 is a committee member and voted 'Yes']. Or, to complicate things even further, perhaps we need to include among those full grounds facts specifying the distinctness of each of these committee members, so that really [At least three committee members voted 'Yes'] is fully grounded in [C_1 is a committee member and voted 'Yes'], [C_2 is a committee member and voted 'Yes'], [C_3 is a committee member and voted 'Yes'], [$C_1 \neq C_2$], [$C_1 \neq C_3$], and [$C_2 \neq C_3$]. And yet more variants beyond these are possible.

In the end, it doesn't much matter for my purposes which of these accounts is correct: each leads to a version of my proposal in which its basic features are preserved. So I can leave it to the metaphysicians to tell us the best account of what grounds majority facts and (if this is relevant) at-least-some-number facts. Tell me the story about what makes it the case that, say, a majority of the people in some room are right-handed. Then I hold that a parallel story can be told about what makes it the case that a majority of votes cast by our committee were in the affirmative. And whatever this story winds up being, I hold that it will allow the fact that C_1 voted 'Yes' to play a role in determining the fact that a majority of the committee members voted 'Yes' even when there were more 'Yes' votes than needed for a majority.[19] In what follows, I will continue to assume the

[19] I also hold that the correct story will result in its being overdetermined that a majority of the committee members voted 'Yes' when there were more 'Yes' votes than needed for a majority, but for my ultimate purposes it doesn't matter if that particular feature of the account is preserved. If individual votes for a winning option always jointly determine the fact that the winning option has won

accounts I have been assuming about the grounds of majority and at-least-a-certain-number facts, just to have a specific proposal to work with as we proceed.

5.5. Other Voting Procedures

Let us now extend our proposal to voting procedures other than a majority-rule decision between two options with no possibility of abstention. Doing so requires changing one or both of the two facts that most immediately ground the fact that some option is a winner in our hierarchy. In the case we have been considering, these two facts are [Every committee member voted] and [A majority of the committee members voted 'Yes']. Call these *the completion condition* and *the winning condition*, respectively, since the first is what must be in place for the voting procedure to have been brought to a close—for all the votes to be in, as it were—and the second is what must be in place for one option to be a winner. Different voting procedures are individuated by their differing completion and winning conditions, and the rest of the grounding structure will depend on what it takes to make those conditions obtain.[20]

For example, suppose we allow abstentions in the majority-rule voting procedure our five-person committee follows when deciding whether to pass the measure. Then we need to change the completion condition and slightly tweak the winning condition. How we change things will depend on the procedure the committee in fact follows, whether explicitly or implicitly. Suppose committee members must either vote 'Yes' or 'No' or officially register their abstention from the vote by some means. Then the completion condition will be [Every committee member has either cast a vote or registered an abstention], and the winning condition when the 'Yes'-option wins will be [A majority of the votes cast were 'Yes']. The grounds of this latter fact will then be largely as they were in our original case. Alternatively, it could be that committee members are given a deadline, and if they do not cast a vote by this deadline, they count as having abstained from the vote. The completion condition will then be the fact that the deadline has passed, and the winning condition will once again be the fact that a majority of the cast votes were for a given option.

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without over-jointly-determining that fact, then so be it, for we have still found a way for individual votes to be metaphysically efficacious regardless of the margin of victory.

[20] Although for the most part we shall consider voting procedures with a single completion condition and a single winning condition, I do not mean to rule out the possibility of a procedure in which several conditions must be satisfied either for the voting procedure to be completed or for a given option to count as a winner once the procedure is completed. I also do not mean to rule out the possibility of voting procedures that lack completion conditions altogether and only feature winning conditions.

If we move away from majority-rule procedures, more radical changes in the winning condition will be called for. For example, suppose our five-person committee uses *the unanimity rule* to decide whether to pass the measure: it passes if and only if all vote 'Yes'. Then the winning condition for the measure to pass is [Every committee member voted 'Yes']. This fact will in turn be grounded in the usual way that universal generalizations are grounded (plausibly: in the individual facts about how each committee member voted together with a "totality fact" about who all the members of the committee are).[21] Or suppose our five-person committee instead uses *the single-vote rule*: the measure passes if and only if at least one committee member votes 'Yes'. Then the winning condition for the measure to pass is [At least one committee member voted 'Yes'], which I take to be the same fact as the existential generalization [Some committee member voted 'Yes']. This fact will in turn be grounded in the usual way in which existential generalizations are grounded; for instance, if C_1, C_2, and C_3 voted 'Yes', and C_4 and C_5 voted 'No', then [Some committee member voted 'Yes'] is presumably fully grounded in [C_1 voted 'Yes'], and also independently fully grounded in [C_2 voted 'Yes'], and also independently fully grounded in [C_3 voted 'Yes']. Indeed, votes conducted using the single-vote rule present a particularly strong case for my suggestion that voting outcomes are usually metaphysically overdetermined, given that it is widely agreed that [Some committee member voted 'Yes'] is metaphysically overdetermined when multiple committee members have voted affirmatively.[22]

Other voting procedures will involve more complex winning conditions, resulting in more intricate grounding structures when those winning conditions do obtain. For example, we can have nested voting procedures in which, say, state-level voting procedures with their own completion and winning conditions produce outcomes that in turn help determine the obtaining of the completion and winning conditions for a national vote. We can also have winning conditions that turn on more than just the votes cast: maybe, for instance, an option wins if and only if (a) it has a majority of the cast votes, and (b) the validity of those votes has not been challenged via such-and-such official procedure.

Another feature of my proposal worth noting is its non-extensional character: what matters is *what makes it the case* that a given completion or winning condition obtains, not merely *whether or not* those conditions

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[21] See Rosen 2010, 118–21, and Fine 2012a, 60–62.

[22] Votes utilizing the single-vote rule also further reinforce my earlier claim that the determination relation between votes and electoral outcomes is grounding, not causation, since no one thinks [C_1 voted 'Yes'] causes [Some committee member voted 'Yes'].

obtain. Thus, on this proposal, we might have two voting procedures which are extensionally equivalent, in that given the same voting inputs, they always yield the same outputs concerning which option wins, and yet nevertheless those two voting procedures differ with regard to their verdicts about whether a given vote played a role in determining a winner on a given occasion. But this is as it should be. Grounding is not purely an extensional matter: two facts that necessarily co-obtain can have different grounds,[23] so we should expect that two extensionally equivalent voting procedures might result in distinct verdicts about the determination relation between individual votes and outcomes of the voting procedure, once we understand that determination relation to be grounding. And this feature matches our intuitions about particular cases. Suppose two people are voting whether or not to pass some measure. Contrast the following two voting procedures. On the first, what it takes for the measure to pass is either person voting 'Yes' (the single-vote rule). On the second, what it takes for the measure to pass is either the first person voting 'Yes', or the first person voting 'No' and the second person voting 'Yes'. These two voting procedures are extensionally equivalent. And yet, intuitively, they differ with regard to their determination verdicts: if both people vote 'Yes', the second person's vote plays no role in making it the case that the measure passes on the second but not the first procedure.

One final comment on my proposal. So far I have left open what it takes for a person to qualify as having voted for some option. What makes it the case that a given person has voted in a given way—call these *the voting conditions*—will vary from voting procedure to voting procedure, and they will lead to additional structure in our grounding hierarchy below the facts about how each person voted. Exactly what these conditions will be is a complex question in social metaphysics that we need not settle here. For instance, in our example in which the members of our five-person committee vote by each scribbling down 'Y' or 'N' on a piece of paper, perhaps [C_1 voted 'Yes'] is grounded in [C_1 wrote 'Y' on a piece of paper], or perhaps it is grounded in [C_1 wrote 'Y' on a piece of paper with the intention of thereby voting on whether to pass the measure],[24] or perhaps we have to further specify the circumstances in or time at which the writing occurred, or perhaps we need to include additional partial grounds adverting to C_1's being a committee member or C_1's having the

[23] For example, consider the fact that some action is morally required and the fact that it maximizes happiness, when we assume the truth of the relevant version of utilitarianism: the first fact is grounded in the second, which is not grounded in itself, so the two facts have different grounds despite necessarily co-obtaining.

[24] If C_1 forgot all about the vote and just happened to start writing down 'Yosemite National Park' but was interrupted after the first letter, has C_1 voted?

authority to vote on this issue. And matters only get more complicated when we consider less stylized examples in which an actual vote takes place.

5.6. Two Objections

On the approach I favor, multiple votes work in tandem to make it the case that a given option is a winner, where we understand that making-it-the-case relation to be grounding, and where we do not evenly divide up the contribution made by each vote (or by each full ground of which a vote is a part). Each of these elements might be thought to make my proposal vulnerable to its own distinctive objection. First, it might be objected that by focusing on grounding I make it too easy for something to help determine the winner of a voting procedure; for example, even votes *against* a winning option might in part ground the fact that this option has won, by in part grounding the fact that a certain number of votes were cast or by in part grounding the fact that the voting procedure has been completed. Second, it might be objected that by eschewing quantitative ways of divvying up responsibility for an electoral outcome, I am forced to say that every vote is equally responsible for an outcome, even in voting procedures in which some votes are given more weight than others.

Let us start with the first objection. Here is a way of sharpening the concern. Suppose our five-person committee is once again voting on whether to pass a measure; they must each cast a vote by a certain deadline or they count as having abstained; and the measure passes iff a majority of the votes cast are 'Yes'. Two committee members—C_1 and C_2—vote 'Yes', one—C_3—votes 'No', and two—C_4 and C_5—abstain. The measure passes, and on my approach this is made the case in part by the fact that three votes were cast and in part by the fact that at least two of the cast votes were 'Yes'. But it is in part because C_3 cast a vote that three votes were cast. So C_3's having voted in part makes it the case that the measure passed, even though C_3 voted against the measure. By contrast, C_4's having abstained does not even in part make it the case that the measure passed, because it partially grounds neither the completion condition (that the deadline for casting a vote has passed) nor the winning condition (that a majority of the cast votes were 'Yes'). But how could C_3 be more responsible for the measure's passing than C_4, when C_3 voted against it whereas C_4 abstained?

This objection should not worry us, because an exactly parallel objection can be formulated for quotidian cases in which the majority of people or objects with one property have another property. Suppose there are exactly three people—P_1, P_2, and P_3—in a room, two of them—P_1 and P_2—are right-handed, and

one—P_3—is left-handed. If, as we have been assuming, what makes it the case that a majority of the people in the room are right-handed is the fact that there are three people in the room and the fact that at least two of the people in the room are right-handed, taken together, then we can run an exactly parallel objection. P_3's presence in the room in part makes it the case that there are exactly three people in the room, so by transitivity P_3's presence in the room in part makes it the case that a majority of the people in the room are right-handed, even though P_3 is left-handed. But isn't it despite, not because of, P_3's presence in the room that at least half the people in the room use their right hand?

There are two ways to resolve this puzzle, and either solution can be straightforwardly ported over to our analogous case involving a majority-rule vote. One solution is to deny that [P_3 is in the room] partially grounds [A majority of the people in the room are right-handed], perhaps because grounding is not transitive in such situations, perhaps because [There are exactly three people in the room] is an enabling condition for the grounding relation between [At least two people in the room are right-handed] and [A majority of the people in the room are right-handed] without itself being a partial ground of that last fact, or perhaps for some other reason. But whatever the story is in this case, a parallel story can be told about why [C_3 cast a vote] does not partially ground [A majority of the cast votes were 'Yes'], and hence does not partially ground [The measure passed]. A second solution is to accept that [P_3 is in the room] does partially ground [A majority of the people in the room are right-handed] while explaining away our reluctance to accept that verdict. To say that [P_3 is in the room] partially grounds [A majority of the people in the room are right-handed] is not to say that the former fact contributes a metaphysical force vector which pushes reality toward its being the case that the latter fact obtains; rather, it is to say that [P_3 is in the room] is part of a collection of facts which all together make it the case that more than half the people in the room are right-handed. Moreover, it is the presence in the room of P_3 qua person, not qua left-handed person, that plays this explanatory role in combination with the other relevant facts. Similarly, one might insist, it is the fact of C_3's having cast some vote or other, not C_3's having cast a 'No' vote in particular, that partially makes it the case that the measure has passed, when it teams up with various other facts. I leave it to my readers to choose which of these responses they prefer. But some such solution must be in the offing, lest we be unable to tell a satisfying story about why majority facts in general obtain.

Turn now to the second objection. Suppose one person's vote counts for twice as much as another person's vote in the tally used to determine a winner; shouldn't we then say that if both voted for the winning option, the first person was twice as responsible for this outcome as the second person? And doesn't my refusal to split up responsibility for an outcome make it impossible to secure this result? For example, suppose there is a six-person committee, one member of which is its chair. Each committee member votes whether to pass a measure, with no possibility of abstention. The chair's vote counts for two points, and everyone else's vote counts for one point. There are seven points to go around, so it takes four points for the measure to pass. The chair—C_1—and four other committee members—C_2, C_3, C_4, and C_5—vote 'Yes', while the final committee member—C_6—votes 'No'. So the measure has passed. Surely, it might be claimed, C_1's vote is twice as responsible for this outcome as C_2's vote is. And clearly, it might be insisted, my proposal is forced to say that these two votes are equally responsible in securing that outcome.

I deny both claims. First, we need to distinguish the claim that [C_1 voted 'Yes'] is twice as responsible as [C_2 voted 'Yes'] *for the number of points that 'Yes' has in its favor* from the claim that [C_1 voted 'Yes'] is twice as responsible as [C_2 voted 'Yes'] *for its being the case that 'Yes' has at least four points in its favor*. The former I grant; the latter I reject. How many points 'Yes' has in its favor is a gradable notion that is determined by adding up the contributions made by each favorable vote, so comparing the contributions made by one vote to the independent contributions made by another vote is a straightforward affair. Whether 'Yes' has at least four points in its favor is a non-gradable, on–off notion, and it itself is not directly determined by adding up independent contributions—although it indirectly depends on a tally so determined, *together* with the fact that this tally is above a certain level. Responsibility for the tally is not the same as responsibility for the tally's being above that level. Second, it doesn't follow on my proposal that we can draw no distinctions with regard to metaphysical responsibility when it comes to C_1's and C_2's votes. There are seven independent full grounds for ['Yes' has at least four points in its favor], and [C_1 voted 'Yes'] is a member of six of these, whereas [C_2 voted 'Yes'] is a member of only four:

(i) [C_1 voted 'Yes'], [C_2 voted 'Yes'], [C_3 voted 'Yes'];

(ii) [C_1 voted 'Yes'], [C_2 voted 'Yes'], [C_4 voted 'Yes'];

(iii) [C_1 voted 'Yes'], [C_2 voted 'Yes'], [C_5 voted 'Yes'];

(iv) [C_1 voted 'Yes'], [C_3 voted 'Yes'], [C_4 voted 'Yes'];

(v) [C_1 voted 'Yes'], [C_3 voted 'Yes'], [C_5 voted 'Yes'];

(vi) [C_1 voted 'Yes'], [C_4 voted 'Yes'], [C_5 voted 'Yes'];

(vii) [C_2 voted 'Yes'], [C_3 voted 'Yes'], [C_4 voted 'Yes'], [C_5 voted 'Yes'].

In light of our second observation about grounding, I don't quite want to say that [C_1 voted 'Yes'] is 6/4 = 1.5 times as responsible for ['Yes' has at least four points in its favor] as [C_2 voted 'Yes'] is. But I do think [C_1 voted 'Yes']'s presence among a greater percentage of the independent full grounds for ['Yes' has at least four points in its favor] can explain our (to my mind mistaken) inclination to ascribe to it a greater share of the metaphysical responsibility for that fact.[25]

5.7. Downstream Consequences

Let us consider one final objection. Our focus so far has been on the determination relation between the facts about whether and how each vote was cast—call these *the voting facts*—and the facts about which options won or lost the voting procedure—call these *the outcome facts*. The outcomes in question are the *direct* outcomes of the voting procedure: who won the election, whether the measure passed, which restaurant was selected for family takeout night. But, it might be objected, we are also interested in the *distal* outcomes of our voting procedures: who actually takes office and has power, whether the measure is in fact implemented and acted upon, which restaurant's food ends up making its way onto our dining-room table. And, the objector might continue, even if the relation between the voting facts and the direct outcome facts is one of grounding, the relation between

[25] A more extreme version of this second objection, in which there is an even greater disparity between how much each person's vote counts, might be thought to present a more pressing problem for my proposal. Consider a case in which four people—P_1, P_2, P_3, and P_4—are voting whether to pass a measure; P_1's vote counts for 8 points, P_2's vote counts for 6 points, P_3's vote counts for 4 points, and P_4's vote counts for 1 point; and the measure passes iff it has at least 10 points in its favor. Then P_4's vote is a "dummy vote." And it might be thought that my account commits me to the implausible claim that P_4's vote can play a role in determining whether or not the measure passes, whereas an account that construes determination in terms of counterfactual covariation nicely yields the result that it is not possible for P_4's vote to play such a role, since there is no possible situation in which counterfactually varying how P_4 votes has an effect on whether the measure passes. But, in fact, when we properly consider the grounding structure in such cases, we can see that my proposal also yields the desired results. Suppose P_1 votes against the measure's passing, and P_2, P_3, and P_4 vote in favor of its passing. Then the measure has at least 10 points in its favor, and this fact is not overdetermined: it is fully grounded in how P_2 and P_3 on their own voted, and not in addition fully grounded in how P_2, P_3, and P_4 voted. So it is not the case that P_4's vote is in part responsible for the measure's having at least 10 points in its favor. Compare: if a basketball player hits a three-point shot, a one-point foul shot, and no other shots during the course of a game, it is not overdetermined that the player scored at least three points in that game, and the player's having hit that one foul shot was not in part responsible for their having scored at least three points.

the voting facts and these more distal, and more important, outcome facts might be one of causation.

Perhaps. But even if so, it is only because the voting facts ground the direct outcome facts, and the direct outcome facts in turn cause the distal outcome facts, that the voting facts cause the distal outcome facts: there is a chain of determination that starts with the voting facts, runs through the direct outcome facts, and ends with the distal outcome facts.[26] But notice that this chain of determination gets funneled through the grounding structure that has been the primary focus of our discussion. So even if my vote in part causes a given politician to be installed into office, it only does so because my vote in part grounds the politician's winning the election and the politician's winning the election in part causes the politician to be installed into office. And, more importantly, if my vote—together with various other votes—can jointly overground a politician's winning an election even when the margin of victory is greater than a single vote, and the politician's winning that election in turn would cause that politician to be installed into office, it follows that my vote—together with those other votes—can jointly overcause the politician to be installed into office even when the margin of victory is greater than a single vote. Our votes cause the distal outcomes of a voting procedure by first grounding the direct outcomes of that procedure, so whether that distal causal relation holds crucially depends on whether the grounding relations on which we have focused obtain.[27]

6. Comparison with Similar Proposals

I have now sketched the basic contours of my proposal about how we should answer our metaphysical question "When does my vote play a role in determining the winner of an election (or other voting procedure)?" The proposal I have put forward bears some similarities to two prominent proposals in the literature, one due to

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[26] Or, at least, that is what happens in the good case in which the distal outcome facts are in fact determined, in an appropriate manner, by the direct outcome facts: in which, for example, a given politician is installed in office because they won the election and not irrespective of the final vote. In the bad case in which there is no determination relation of the right sort between the direct outcome facts and the distal outcome facts, there is also no determination relation of the right sort between the voting facts and the distal outcome facts, causal or otherwise. Henceforth I restrict our discussion to the good case.

[27] In my response, I have been granting my hypothetical objector the following mixed-transitivity principle (defended in Lee 2022 and Luzon forthcoming):

Grounding–Causation–Causation Link: If *f* partially grounds *g*, and *g* partially causes *h*, then *f* partially causes *h*.

But I myself doubt this principle is true and would prefer to replace it with a principle where the determination relation in the consequent is not claimed to be causation but instead is left open:

Grounding–Causation–Determination Link: If *f* partially grounds *g*, and *g* partially causes *h*, then *f partially determines h*.

If I am right, then we cannot say that individual votes *cause* distal outcomes by way of grounding direct outcomes which in turn cause those distal outcomes. However, we can make a related claim, namely that individual votes *determine* distal outcomes in this manner.

Alvin Goldman, the other to Richard Tuck.[28] Although, to my mind, Goldman's and Tuck's proposals are quite different from each other, at least when it comes to answering our metaphysical question, they are often discussed together, and I am happy for my proposal to be seen as within the same general family of views as theirs. However, there are important differences between my approach and the Goldman–Tuck approach, so it is worth drawing attention to some of those differences.

My proposal is closest to Goldman's. Goldman starts by making the standard assumption that the determination relation in question when individual votes determine a winning option in some voting procedure is causation. He then endorses J. L. Mackie's INUS analysis of causation, on which a cause is typically an insufficient but necessary part of an event that is unnecessary but minimally sufficient for the effect (where an event is minimally sufficient for an effect when it is sufficient for that effect and contains no smaller event that is also sufficient for the effect).[29] Or, rather, Goldman endorses a slight tweak of Mackie's analysis, as Mackie himself builds in an extra condition that rules out cases in which several events that are minimally sufficient for the effect obtain, one of which contains the cause in question, another of which doesn't. But, as Goldman observes, such a condition entails that there is no such thing as causal overdetermination, which Goldman takes to be implausible, so he thinks we are better off dropping this extra condition from Mackie's analysis. And, indeed, Goldman argues that precisely what we have in voting scenarios not decided by a margin of a single vote is causal overdetermination, where the notion of causation is understood in accordance with Mackie's (tweaked) INUS analysis. So in our original scenario involving the five-person committee in which four vote 'Yes' and one votes 'No', Goldman would insist that C_1's 'Yes' vote counts as a partial cause of the measure's passing because it is part of a number of larger events that are each minimally sufficient for the measure's passing. One such larger event is the complex event made up of C_1's voting 'Yes', C_2's voting 'Yes', and C_3's voting 'Yes', another is the complex event made up of C_1's voting 'Yes', C_2's voting 'Yes', and C_4's voting 'Yes',

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[28] See Goldman 1999 and Tuck 2008, ch. 2.

[29] See J. L. Mackie 1965 and 1973. Mackie's INUS analysis of causation is similar to the NESS (Necessary Element of a Sufficient Set) test for causation in the law developed by H. L. A. Hart and Tony Honoré (1959, 1985) and refined by Richard Wright (1985). I include the 'typically'-qualifier in my summary of Mackie's proposal because Mackie also allows for cases in which we drop either the insufficiency requirement or the unnecessariness requirement or both, so really Mackie is proposing an NS analysis on which a cause is a necessary part of an event that is minimally sufficient for the effect. Mackie includes the 'minimally'-qualifier before 'sufficient' because otherwise every event would be a cause of every event with at least one cause: if cause c causes effect e due to c's being a necessary part of an event—call it c^+—that is sufficient for e, and d is any arbitrary event, then the fusion of c^+ and d (i.e. the complex event consisting of c^+ and d together and nothing else) is also sufficient for e, and so d is also a necessary part of an event that is sufficient for e, and hence would also count as a cause of e if we didn't tack on the 'minimally'-qualifier.

and a third is the complex event made up of C_1's voting 'Yes', C_3's voting 'Yes', and C_4's voting 'Yes'.

Thus Goldman's proposal is quite close to mine.[30] Or rather, since Goldman published his article a quarter of a century ago, perhaps we should say that my proposal is quite close to his. We both take individual votes to overdetermine the winner of an election or other voting process when not every vote is needed to secure the victory. And we both identify largely the same combinations of votes that overdetermine who the winner is, although for Goldman these combinations are fusions of events (or "conditions," as following Mackie he often characterizes the relata of the causation relation), whereas for me these combinations are pluralities of facts about how individual people voted. However, there are two significant differences. First, Goldman takes the determination relation at issue to be causation, whereas I have been insisting that it is grounding. Second, Goldman assumes Mackie's INUS analysis of causation, whereas I do not.

These differences matter. For one thing, Mackie's INUS analysis of causation is a completely hopeless proposal that has few advocates these days. Among other problems, the proposal is wildly extensionally inadequate. Suppose (i) event *c* is sufficient for both event *d* and event *e* via (what independently of any particular analysis of causation we would deem to be) separate causal processes, (ii) *c* is also necessary for *d*, (iii) *c* is not necessary for *e*, and (iv) *d* is a complex event made up in part of event *d**. Then *d** is an insufficient but necessary part of *d* (by (iv)), and *d* is unnecessary but sufficient for *e* (by (i), (ii), and (iii)). So *d** is a cause of *e* on Mackie's analysis, whereas intuitively they should count as having a common cause. This is an intolerable verdict, which is not easily removed by tinkering with the details of Mackie's analysis, for instance by adding in an extra clause requiring a cause to temporally precede its effect (since in our example *d* might well happen earlier than *e*).[31] So it is problematic to motivate an account of how determination works in voting contexts by appealing to a moribund theory of causation.

For another thing, I have argued that Goldman and others are simply wrong to assume that the

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[30] More precisely, what I have described is Goldman's proposal during the first half of his article. In the second half, he proposes a different model that is further from mine (and which he adopts for bad reasons: he worries that his original model cannot account for the intuitive difference between voting and abstaining, but he only reaches this result by misapplying his proposal and neglecting to consider sufficient conditions containing multiple abstentions).

[31] Another sort of problematic case for Mackie's INUS analysis involves necessarily co-obtaining events that intuitively have different causal powers. Suppose Socrates' drinking the hemlock causes his death. It follows from Mackie's analysis that the following is also a cause of Socrates' death: the set {Socrates}'s coming to be such that its sole member drank the hemlock. (Proof left to reader.) But we cannot so easily establish that abstract objects have causal powers. And if we could, we would need to accept widespread causal overdetermination due to every concrete object's having an abstract doppelgänger (in fact, many abstract doppelgängers) with exactly the same causal powers.

determination relation between votes and (direct) electoral outcomes is causation. When we take that relation to be grounding, I think an account on which voting involves overdetermination becomes all but inevitable. Few would resist the suggestion that it is overdetermined that the majority of people in some room are right-handed (the analogue of the majority rule), or that at least one person in that room is right-handed (the analogue of the single-vote rule). Overgrounding is a boringly commonplace phenomenon that arises in cases which are exactly parallel to voting scenarios, provided we see voting scenarios as involving a grounding relation between votes and outcomes. True cases of overcausation, by contrast, are relatively rare: most ordinary cases that at first seem to involve overcausation often turn out, on closer inspection, either to feature one causal process that preempts the other before it can run its full course, or to turn on issues of vagueness that make it indeterminate which of two events in fact caused a given effect (though it is not indeterminate that one or the other caused it), or both. For example, I doubt that most real-world executions by firing squad in fact involve overcausation, when we look with sufficient granularity at the causal processes that actually led to the prisoner's death (a condition the initial onset of which is a vague matter). Overcausation is an eerie phenomenon, and it worries us when a theory posits too much of it: witness the heated debates about whether dualism in the philosophy of mind commits its proponents to every effect with a mental cause being overdetermined because it also has a physical cause. Overgrounding, by contrast, is just a fact of life. It is overdetermined that there is at least one word on this page, and overdetermination of that sort is not something which troubles us.

So I view Goldman as having hit up largely the correct account of how votes determine electoral outcomes, but as having gotten to that conclusion in the wrong way. He was mistaken to assume that such determination is causation, and he was mistaken to assume that causation can be given an INUS analysis. We do better to motivate our proposal without appealing to dubious assumptions of either sort.

There is a third difference between my proposal and Goldman's that is also worth mentioning. Although my proposal and Goldman's largely agree about the circumstances in which an individual vote plays a role in determining a winner, there are a few edge cases where our proposals differ extensionally, due to Mackie's requirement that a cause be a necessary part of an event that is *minimally* sufficient for some effect—

i.e. an event that is sufficient for that effect and does not contain a smaller event also sufficient for the effect.[32] And in these edge cases in which our proposals yield differing verdicts, I believe my proposal's verdicts are to be preferred. For example, consider a variant of our five-person committee example in which one member of the committee is its chair, and what it is takes for the measure to pass is this: either that particular person (i.e. the chair) votes 'Yes', or at least two committee members vote 'Yes'. Now suppose the chair—C_1—and one other committee member—C_2—vote 'Yes', while the remaining committee members—C_3, C_4, and C_5—vote 'No'. On Goldman's proposal, C_2's vote is not responsible for the measure's passing, because although C_1's vote and C_2's vote are together sufficient for the measure's passing, they are not minimally sufficient, given that C_1's vote on its own is enough for the measure to pass. So Goldman would see this as a case in which it is not overdetermined that the measure passes. On my proposal, by contrast, this is indeed a case of overdetermination: both C_1's vote on its own (without the help of any other votes) and C_1's and C_2's votes together make it the case that the winning condition is met for the 'Yes' option, so C_2's vote does in part make it the case that the measure passes. And that, I would say, is the verdict we want.[33]

Richard Tuck has put forward a proposal that bears some surface similarities to Goldman's but, when we dig deeper, can be seen to be quite different. Like Goldman, he frames the issue in terms of whether votes can possess "causal efficacy" or be "casually responsible" for an electoral outcome even when there are more votes for the winner than needed.[34] And like Goldman, he appeals to a theory of causation on which causes are necessary parts of a sufficient condition for some effect in order to defend the causal efficacy of individual votes in such cases.[35] However, Tuck does not take voting cases to involve causal overdetermination. His model is a roll-call vote, in which the eligible voters cast their votes one by one in a specified order, and once one option has more votes than any other could have were every eligible voter given an opportunity to cast a vote, that

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[32] Thus Mackie's analysis suffers from the ailment Fine has dubbed "minimalitis" (2017, 564), which arises whenever we attempt to mimic a genuine form of dependence or determination by appealing to entailment relations between minimal sets.

[33] Perhaps it might be objected that really the winning condition for the voting procedure is this: either the chair votes 'Yes', or at least two committee members *other than the chair* vote 'Yes'. However, I do not see why there could not be a voting procedure with a winning condition as I have specified it. Imagine there are written guidelines explicitly formulating the conditions under which a measure being voted upon passes. Such guidelines might well formulate those conditions as I have, and there is no good reason to think the actual winning conditions would deviate from the written winning conditions, even if those conditions take the form of a disjunction, some of whose disjuncts are compatible with each other. When we try to update our guidelines to add in a new disjunct to the winning condition, have we only succeeded in adding a disjunct that is the would-be disjunct we have written down minus a conjunction of the old disjuncts? Why think that?

[34] Tuck 2008, 39, 40.

[35] Ibid., 58–59 (though he attributes such a theory of causation to J. S. Mill, not J. L. Mackie).

option is declared the winner and the voting procedure stops. In such a case, it is clear each vote for the winning option is partly responsible for its being the winner, even though that vote might not have been needed for that result because later votes would have secured a victory for the winning option had the vote in question been cast differently, thereby resulting in the roll call continuing longer than it in fact did. Tuck compares this situation to cases of *preemptive causation*, in which one causal process leads to a given effect moments before a separate causal process would have produced the same effect had the first one not been present, such as when "one policeman . . . shoots and kills a bank robber [thereby causing the robber's death] . . . a split second before one of his colleagues would have done [so]."[36] Tuck then extends this model to all voting procedures, even those not involving a roll call. He holds there is always a unique "efficacious set" of votes, as he calls them, that together are solely responsible for the outcome of the voting procedure.[37] For example, if our five-person committee votes on the measure by each writing 'Y' or 'N' on a piece of paper, and four committee members vote 'Yes' whereas one votes 'No', Tuck would deem the first three 'Yes' votes counted to be the efficacious set. So Tuck treats the process of looking at the pieces of paper one by one in order to tabulate the results as, in effect, its own roll call, and even though we might continue to count votes after we hit three 'Y's, Tuck maintains that the measure has already passed and the fourth piece of paper we encounter with a 'Y' on it played no role in making this the case.

Thus although Tuck holds that voting outcomes are *jointly determined* by the votes in the efficacious set, he denies that such outcomes are ever *overdetermined*. And, problematically, he motivates his thought that there is always a unique efficacious set of votes by making some rather peculiar assumptions about what the rules governing a voting procedure must be. We can imagine two versions of our scenario in which the committee members write down their votes on a piece of paper. In the first (possibility 1), when a committee member scribbles down 'Y' or 'N', a vote has already been cast, and counting the votes is how we gain epistemic access to the results of a voting procedure that has already been completed. In the second (possibility 2), what it takes for a vote to be cast is instead for a committee member to write down 'Y' or 'N' and for all of the committee members to certify that such a vote has been cast when the votes are tabulated; so on this version of the case,

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[36] Ibid., 51.
[37] Ibid., 44.

in part what it takes to have voted 'Yes' is for what one writes on a piece of paper to be deemed to be a 'Yes' vote by the relevant figures. In fact, we can imagine two subvariants of this second case. On the first subvariant (possibility 2a), once three 'Yes' votes have been certified, the procedure is complete and the measure has passed. On the second subvariant (possibility 2b), even though being certified as a 'Yes' or 'No' vote is part of what it takes to constitute a 'Yes' or 'No' vote, the voting procedure continues until all of the votes have been certified, and then what it takes for the measure to pass is for a majority of all of those votes to be in favor of passing the measure. Among these three possibilities—1, 2a, and 2b—it is only on the second that it is plausible that there is a unique set of efficacious votes. But it is just not clear why our five-person committee must be following the rules as imagined in possibility 2a. Indeed, most real-world versions of our five-person committee example are more plausibly interpreted as ones in which the committee is either explicitly or implicitly following the rules as imagined in possibility 1 or 2b. After all, in possibility 2a, the person whose 'Y' mark is the fourth in the pile *does not even count as having voted*, which is a bizarre way of describing the situation. And surely this person would be aggrieved, or at least slightly perturbed, if the committee members didn't even bother looking at the piece of paper with their mark on it once three 'Y's were uncovered.

More generally, Tuck's attempt to use the time at which a vote is cast or certified to determine a unique set of efficacious votes cannot possibly be generalized to all voting procedures. For surely there are some voting procedures in which votes can be simultaneously cast or certified, or in which the time at which the vote is cast or certified does not matter for the voting procedure's completion or winning conditions. Suppose our committee votes by raising their hands if they are in favor of passing the measure, and four committee members simultaneously raise their hands, and all five committee members simultaneously see that four of them have raised their hands. It boggles the mind to think that, somehow, three of these 'Yes' votes are efficacious and one is not. Although I think Tuck is right to hold that an individual vote can help determine the outcome of a voting procedure even when it fails the counterfactual test "Would the outcome have been different had that vote not been cast in that way?" I think he is wrong to deny that voting cases involve overdetermination. Moreover, like Goldman, Tuck rests his account of when and why votes can influence electoral outcomes on the mistaken assumption that such influence is *causal* influence, together with a questionable theory of causation.

7. Brief Remarks on the Ethics of Voting

My primary topic here has been the metaphysics of voting: what makes it the case that a given outcome of some voting procedure has occurred? And when does an individual's solitary vote play a role in determining that outcome? I have focused on these issues concerning the determination of voting outcomes because I think academic discussions of voting often rest, either implicitly or explicitly, on mistaken views about how such determination works. Authors blithely assume that votes determine electoral outcomes by causing them, that we can use counterfactual reasoning to assess when such causation occurs, that when an option wins by a margin of one then somehow every vote for that option was itself decisive or pivotal. We should avoid such assumptions, and when we do, a quite intuitive picture of how our votes work together to determine outcomes emerges. But, of course, the primary reason it is important to get clear on these *metaphysical questions* about when and why an individual vote helps determine the outcome of some voting procedure is because our answers to those metaphysical questions are relevant to *ethical questions* about when and why we should vote in the first place, and how we should respond to those who have voted or chosen not to vote. So let me offer a few remarks about how the metaphysical view I have defended interacts with ethical issues concerning our reasons to vote, to hold people accountable for how they have voted, and so on—although on this topic I will have to be briefer than I would like, because there are complex issues here that would require at least another paper to properly settle.

We can divide up the ethical issues related to voting into two groups: *backward-looking issues* concerning the attitudes it is fitting to have and the actions we have reason to perform in response to votes that have taken place in the past and *forward-looking issues* concerning whether and how to vote in an election or other voting procedure that has not yet taken place. The relevance of my metaphysical proposal for backward-looking ethical issues should be obvious. When the U.S. Supreme Court delivers a 6–3 ruling, we hold each member of the six-person majority accountable for the court's decision: if we judge the ruling a good one, we praise each of them, and if we judge the ruling a disastrous mistake, we blame each justice in the six-person majority. These attitudes on our part are difficult to make sense of given the familiar line of reasoning about what it takes for a vote to influence the outcome of a voting procedure. If a given justice in the six-person majority had voted differently, there still would have been a majority in favor of the same ruling, hence on the familiar line of

reasoning that justice's vote had no influence on the fact that there was a majority. So why are we praising or blaming them for the part their vote played in the Court's decision? The picture I have defended allows us to make sense of our practices here. Each justice in the majority *did* influence the outcome of the court's vote, not by making an independent causal contribution toward that outcome, but rather by having their vote in part ground the outcome. The justices in the majority together made it the case that the Court decided as it did, by together making it the case that there were at least five votes in favor of that decision. As more votes were secured than were needed, it was overdetermined that the Court ruled as it did. But no matter: overdetermination is still determination, and we hold each justice in the majority accountable for the role they played in that determination, in both our attitudes and our actions.

Matters become more delicate when we turn to forward-looking issues. A tempting thought is that the forward-looking considerations are driven by a concern to be on the right side of the backward-looking factors.[38] The thought is: psychologically, we are motivated to vote because we want the sort of credit for the voting outcome that we get from being partly responsible for it, and, normatively, we are right to do so, because our reasons to vote flow from our reasons to want to be praiseworthy for what we do, and for being averse to being blameworthy for our conduct. But such a rationale for voting is, I would say, misguided. Our reasons to want to be praiseworthy are not prior to our reasons to perform the actions in virtue of which we would be praiseworthy were we to perform them, and our reasons to aim to avoid blameworthy conduct are not prior to our reasons against doing the sorts of things that would, partially in virtue of those reasons, make us a fitting target of blame. Although all of us are, from time to time, motivated to do things for the praise we would thereby fittingly receive or the blame we would thereby fittingly avoid, such motivations represent a distorted perspective on the normative landscape, an undue obsession with keeping one's hands clean and acquiring accolades, moral or otherwise, for one's actions. We should not vote just to get credit for the outcome—although, on my proposal, we will in fact deserve credit for an outcome if our vote helps bring it about.

Instead, I think a better approach starts by considering the point of voting in the first place. Votes are

[38] This, for example, is explicitly what Goldman (1999) proposes, and many of the existing criticisms of his view in the literature (such as that found in G. Brennan & Sayre-McCord 2015) are directed against this aspect of his view. Tuck (2008, ch. 2), by contrast, considers and then rejects such an approach to deriving forward-looking reasons to vote from backward-looking reasons to give people credit for how they voted, before settling on an account of forward-looking reasons to vote that is closer to the one I shall defend.

not idle exercises; instead, they are the means by which a collection of individuals come to a decision on a potentially contentious matter. That is what distinguishes a vote from an opinion poll, or a real vote from a straw vote. So to get a fix on the reasons to vote, we should start by providing an account of why it is important (or valuable, or required: I don't mean to prejudge the normative categories at issue at each level of assessment) for the relevant collection of individuals to come to a decision on the matter in question. This importance will in part be a matter of coming to the right (or best, or . . .) decision, and in part a matter of coming to that decision in the right kind of way. From these claims at the group level, we can move inward to the importance for each individual of playing a part in that collective decision-making process that is partially constituted by their vote, both with regard to steering the group toward the right decision and with regard to helping make sure the decision is made in the right kind of way. Depending on the specific relationship that the individual bears to the group, the individual might have strong reasons to take part in this process, or (what is not the same thing) strong reasons against failing to take part in it. But these reasons need not be overriding: the individual might have other, more pressing concerns that outweigh the reasons to engage in this particular voting procedure.

Every element in the landscape scene I have just crudely sketched out in charcoal requires greater detail. And the account I have been defending during the bulk of this paper, of how individual votes help determine a voting procedure's winner, is most relevant to only one region of the canvas: the individual's being able to help steer the collective decision-making process in the right direction even when the winner of a vote has secured more votes than needed. But that is a crucial part of the overall picture, as an example can help bring out. Suppose the senior faculty in my department are going to vote at a faculty meeting on whether a junior colleague of mine will receive tenure. (Let us stipulate that there will be only a vote at the meeting with no preceding discussion—perhaps a discussion of the merits of the case already took place during a previous meeting that had to end early—and also stipulate that it is not possible to vote in absentia.) I think my junior colleague clearly deserves tenure, and I am confident she will receive enough votes. So why bother attending the faculty meeting and casting a vote? Because voting is how we together, as a department, make decisions, and this particular decision is an important one for us to get right. This importance at the group level in turn makes it important for me to take part in this process and to be in part responsible for our having made the

right decision. Imagine if I were to tell my junior colleague the day before the meeting, "Actually, I don't plan on voting on your tenure case, because I'm so confident you'll get enough votes and want to stay home to get some writing done." Those are the words of a shitty colleague.

Of course, we can construct variants of the case in which skipping the meeting would be defensible: perhaps the only way I can make the meeting is by paying for a ludicrously-expensive, ludicrously-early morning flight after my initial flight home from a conference was canceled. We can even imagine versions of the case where it is for the sake of the department, and not just my pocketbook, that I miss the meeting: maybe the only way for me to secure funding from a donor for five new faculty lines is to meet with that donor at the same time as the tenure vote. But in all of these cases, something is lost by my not being there in person to cast my vote in support of my colleague, *even if* the vote is a landslide and *even if* she would have received tenure regardless of how I voted.[39] By voting for her to receive tenure, I come to relate to my colleague, and to my other colleagues, and to the department as a whole, in a way that I do not if I take myself out of the voting procedure, or if I vote in the other direction. Perhaps I have even more reason to take part in the tenure vote when there is a good chance the margin will be a single vote. But it is not only in situations in which counterfactually twiddling whether and how I vote leads to a different outcome that my vote in part determines said outcome. Often, I influence the result of a vote even though my vote was not needed to secure that result, by being a part of several different combinations of votes that, together with various other combinations of votes, overdetermine the resulting outcome. And it is important that I influence the vote in that way: I have reason to in part make it the case that we, the faculty, have together made the right decision on this matter.

This story about the reasons we have to vote due to our reasons to play a part in determining the outcome of a vote, insofar as doing so will in turn partially ground the fact that a collective of which one is a part will have decided a certain way on a certain matter, can be combined with many other popular approaches to our reasons to vote, such as those that emphasize the expressive role of voting, or that appeal to a citizen's duty to vote, or that stress the importance of what is communicated by the vote's final margin, or that treat the vote's outcome as an external event that one just happens to be able to affect through one's vote but could also

[39] Moreover, what is lost cannot be solely expressive in nature, for we can construct versions of the case in which my vote in person would lack any expressive component, because I have already made it public that I think my colleague should receive tenure and because the vote itself will be conducted via a secret ballot.

affect in other ways. These other stories all strike me as fine as far as they go, but without supplement by the story I am telling here I do not think they take us far enough: for example, expressive proposals predict—implausibly, I would say—that we have significantly less reason to vote when there is a secret ballot and we have already made public our stance on the options being voted upon, and proposals that hinge on the communicative effects of the margin of victory predict—incorrectly, in my estimation—that we have significantly less reason to vote when the final margin will not be publicly revealed. But here it might be objected that by emphasizing the importance of one's vote partially grounding the final outcome, my account of our reasons to vote implausibly makes how much reason we have to vote for an option that is likely to win turn on whether or not a voting procedure is being followed on which one's vote for the winning option will in fact play a role in grounding the outcome. Recall our two extensionally equivalent voting procedures that lead to different determination verdicts. Two people are voting whether to pass some measure, and according to the first procedure, the measure passes if either votes 'Yes', whereas according to the second, the measure passes if either the first person votes 'Yes', or the first person votes 'No' and the second person votes 'Yes'. If I am the second person and I know for certain that the first person will vote 'Yes', it follows on my proposal that I have more reason to cast my 'Yes' vote if we are following the first voting procedure than if we are following the second (assuming it would be a good thing for the measure to pass). But far from this result being an objection to my proposal, I think it is actually a virtue of the normative story I have sketched here that it generates this result. Even if these two voting procedures yield the same winner outputs given the same voting inputs, it is only on the first that my 'Yes' vote influences the outcome when the other person votes affirmatively, and this should make a normative difference to my deliberations about whether to vote.[40]

8. Doing without Determination?

I opened by considering an all-too-common line of reasoning, on which there is no point to voting because it is incredibly unlikely your vote will help determine an election's winner, and it is incredibly unlikely your vote

[40] Indeed, the resulting metaphysical and hence normative differences between these two extensionally equivalent voting procedures points to another place where my account has ethical relevance: it might have bearing on *the ethics of voting-procedure design*, insofar as the different determination relations that would result from a given voting procedure give us reason to prefer using one voting procedure rather than another when making a given type of collective decision. Suppose the first member of our two-person committee is senior faculty and the second junior faculty. Then we might want to adopt our second voting procedure to shield the second person from being metaphysically responsible for the outcome if both vote 'Yes'. Or, alternatively, we might want to adopt the first voting procedure because it would be unfair to give only one of the two people credit for the outcome if both vote 'Yes'.

will help determine an election's winner because it is incredibly unlikely the final margin of victory will be a single vote. I attacked this argument's assumption that your vote plays a role in determining who wins an election only if the electoral outcome counterfactually covaries with your vote: twiddle the vote and we also twiddle the outcome. The sort of determination at issue here, I argued, is constitutive, not causal, and we can have constitutive determination without counterfactual covariation. However, there is a natural reply I want to end by considering. Perhaps the fan of our familiar line of reasoning should give up on determination and double down on counterfactuals by formulating their argument entirely in terms of counterfactual covariation without any appeal to determination, whether causal or constitutive, anywhere in their reasoning. Wouldn't that allow them to revive their argument against voting?

Note that doing so is at most a threat to some of the claims I have made about our forward-looking reasons to vote. In particular, it doesn't undermine one of the most important backward-looking lessons I drew from my ground-theoretic account of how votes determine winners: the way in which it allows us to make sense of our practice of praising and blaming people for their votes when the final margin of victory is greater than one.

And even as a threat to my forward-looking claims, this attempt at resuscitating the familiar line of reasoning is unconvincing. There are two major problems here. The first is that once the familiar line of reasoning has been entirely shorn of 'determination'-talk, it becomes significantly less appealing. What might the new argument be? That your vote is only such that counterfactually varying your vote counterfactually varies the electoral result if the final margin of victory is one, and the chances of that are miniscule, so you shouldn't bother voting? But why this singular obsession with one's vote being such that twiddling it twiddles the outcome, unless we think that is how the former makes the latter obtain? In one study, over 95% of surveyed American voters said the chance to "make" the community or nation a better place to live was somewhat or very important to them when voting, and over 90% said the chance to "influence" government policy was somewhat or very important.[41] I doubt very many of these voters felt it was somewhat or very important to have improvements to their community or nation counterfactually covary with their vote—although we would

[41] Verba et al. 1990, as summarized in G. Mackie 1994, 26.

have to run the studies to see whether this bold empirical hypothesis on my part pans out. The natural view is that we care about influencing the outcome of an election, not about having its outcome counterfactually covary with our vote, and if influence is what we care about, it is not clear why we should rest the case for voting on the possibility of a relation of counterfactual covariation obtaining between our vote and the outcome.

The second problem is that it is nearly impossible to motivate and defend the central premises in the newly reformulated line of reasoning without sliding into talk of 'dependence', 'determination', 'influence', 'impact', 'effect', 'change', or some other locution of that sort. Indeed, I find that philosophers who urge such a reformulation upon me can barely go three sentences before they start summarizing the rationale behind the new line of reasoning using such language. However, all of these terms—'influence', 'impact', 'change', and the like—are amenable to both a causal and a constitutive reading, and it is the constitutive reading that would be needed in the current context, but such a reading cannot be understood in purely counterfactual terms. So the very practice of those who would try to talk about voting exclusively in terms of counterfactuals reveals that they too are hankering after some non-counterfactual type of determination or making or influence.

Here we must be careful with our terminology. Under the influence of David Lewis, philosophers have come to use the expressions 'counterfactual dependence' and 'difference-making' to pick out relations of counterfactual covariation. On one way of understanding these expressions, [q] counterfactually depends on [p] iff, were it not the case that p, then it wouldn't be the case that q, and [p] makes a difference to whether [q] obtains iff the same counterfactual holds.[42] However, the standard counterexamples to understanding grounding in terms of counterfactuals also show that so-called "counterfactual dependence" is no form of dependence, and so-called "difference-making" no type of making. If utilitarianism is true and some of act of mine both maximizes happiness and is morally required, then if my act hadn't been morally required, it wouldn't have maximized happiness. So [My act maximizes happiness] counts as "counterfactually depending" on [My act is morally required], and [My act is morally required] counts as "making a difference" to whether

[42] Authors refine these proposals in various ways, but these refinements need not concern us: some refinements (such as switching the relata from facts to events, or requiring the relata be distinct in the sense that neither is a part of the other, or prohibiting a "backtracking" reading of the counterfactual) have no bearing on the points I shall make, whereas other refinements (such as requiring the relata be distinct in the sense that neither obtains partially in virtue of the other or prohibiting a "downtracking" reading of the counterfactual) do have a bearing but only because they sneak in a constitutive-dependence relation that makes the overall proposal no longer purely counterfactual.

[My act maximizes happiness] obtains, as those expressions have come to be used. But surely there is no sense in which the happiness fact depends on the requiredness fact, or in which the requiredness fact makes the happiness fact the case. So these pieces of terminology are deeply misleading. And attempts to make the reformulated anti-voting argument more attractive by framing it using the expressions 'counterfactual dependence' and 'difference-making' risk doing so only because they trick us into thinking we are appealing to genuine dependence and making relations here. Just as a toy duck is not a duck, what we call "counterfactual dependence" is not a dependence relation and what we call "difference-making" is not a making relation.

Actually, matters are even worse when it comes to 'difference-making'-talk. At least the phrase 'counterfactual dependence' wears on its sleeve its status as a term of art. But 'making a difference' is a perfectly ordinary expression of English. Moreover, the ordinary meaning of that expression is entirely divorced from its meaning when employed as a technical term by contemporary philosophers. In the non-technical, everyday use of these words, I make a difference only if I make something the case, and I can make a difference even if the difference I thereby make is overdetermined. Moreover, wanting to make a difference, in the non-technical sense, about a matter of some importance is a commonplace moral phenomenon. So I think the time has come to take back the expression 'making a difference' from the counterfactual theorists who have, by linguistic fiat, foisted upon us a bad theory of difference-making, and who have made it seem as if they are appealing to a genuine determination or making relation in their work by affixing the label 'making' to what is not itself a making relation.[43]

Indeed, when we use that expression in its normal sense, 'difference-making'-talk nicely captures one of the most appealing features of the account of the metaphysics of voting I have been urging in this essay. I have defended a picture on which individual votes can influence the outcome of an election or voting procedure even when the margin of victory is greater than one. So just as your child can—together with various other children—make a sandcastle, it follows on my account that your vote can—together with various other votes—

[43] Here I have been focusing on the dominant use of 'making a difference' in the philosophy literature, whereby it picks out a form of counterfactual covariation. But a few authors depart from this use and offer not-purely-counterfactual theories of "difference-making" that employ the expression in something closer to its everyday use. For example, Carolina Sartorio (2005) argues that to be a difference-maker is (roughly) to be a partial maker whose absence wouldn't be a partial maker, and Stephan Krämer and Stefan Roski (2017) argue that to be a (ground-theoretic) difference-maker is (roughly) to be a partial ground without which one of the full grounds of which it is a part wouldn't contain a full ground. Note that on both of these proposals, your vote for the winning candidate in a landslide counts as a difference-maker for that candidate's victory, given my ground-theoretic account of what makes that victory the case.

make a difference to who wins an election, even when there is a landslide. In such a situation, no one vote on its own makes this difference. But together, in various combinations, they do, many times over.

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