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Santa Barbara

The Metaphysics of Organized Social Groups

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Philosophy

by

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Committee in charge:

Professor Nathan Salmon, Chair

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September 2022

The dissertation of Jason Lee Hanschmann is approved.

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IN LOVING MEMORY OF

BEAR

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ABSTRACT

The Metaphysics of Organized Social Groups

by

Jason Lee Hanschmann

I put forth and defend a novel metaphysical account of organized social groups (e.g., pick-up basketball teams, families, and rock bands) as composite wholes that may vary in their constitutions. Currently, there are a number of competing accounts concerning what it is to be an organized social group. For example, one such account identifies these things with the pluralities of their members. Another account takes them, instead, to be sets that have certain kinds of objects as elements.

While these competing theories may have some intuitive appeal, they do not adequately capture the intuitive persistence conditions of organized social groups. The first paper of this dissertation, titled "On organized social groups and their persistence conditions," aims to show this. In this paper, I examine three leading accounts of organized social groups and argue that none of them can accommodate a perfectly possible organized social group that changes its membership over time, changes the functional relations in which its members must stand over time, and eventually ceases to exist.

In the second paper, "What is an organized social group?" I propose and sketch out a novel metaphysical account of organized social groups, one that I think adequately accommodates the various changes that such things can (or might) endure. I proceed in two main sections. In the first section, I show that the relationship between a material object and

its parts is intuitively analogous to the relationship between an organized social group and its members, and so we are prima facie warranted in treating these relationships similarly. I then briefly lay out an account of the relationship between a material object and its parts that is particularly fitting for our purposes. In the second section, I use this account as a guide for sketching out a theory of organized social groups, which I call 'the function correspondence account'. After laying out the function correspondence account's postulates, I show that it can secure desired results concerning the intuitive persistence conditions of organized social groups.

There are, nevertheless, some worries that one might have about the function correspondence account. One consequence of the account is that its truth entails that an organized social group exists only if it has members, which is incompatible with the commonly held intuition that some organized social groups may exist despite being memberless. The third and final paper of this dissertation, titled "Memberless organized social groups," addresses this potential major worry.

In "Memberless organized social groups" I examine cases that seem to support the intuition that organized social groups may exist despite having no members. I show that such cases do not entail that organized social groups may exist memberlessly. Further, I show that the function correspondence account is perfectly compatible with such cases, and that the manner by which it may accommodate them is independently motivated. I then go on to argue that we have good reason to reject the possibility of memberless organized social groups. The acceptance of memberless organized social groups, I argue, comes at the steep, theoretical price of effectively preventing organized social groups from being the kinds of things that may interact with the material world.

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I. On organized social groups and their persistence conditions

§0 Introduction

In this paper I will argue that none of three prominent accounts of organized social groups (OSGs) adequately captures their persistence conditions. Accordingly, the thesis of this paper is largely negative, though I hope that this discussion will provide some insight into the natures of OSGs. I will begin in Section 1 by listing some familiar examples of OSGs and highlighting some important features of them. I will then describe a fictional case. It is one that I think would be widely agreed to involve an OSG undergoing some changes before finally ceasing to exist. This example will serve as a paradigm for evaluating each of the metaphysical accounts of OSGs presented in Sections 2 through 4. I assume that there are commonly held views about when an OSG ceases to exist, and so I assume that a good metaphysical account of OSGs will accommodate those views.

§1 Organized social groups

Perhaps the clearest examples of OSGs are things like Major League Baseball teams, college admissions committees, and rock bands. The Chicago White Sox, for example, is a social group whose identity seems to be closely tied to the way its members are organized. If the individual members of the White Sox were not organized in the right way, then it certainly seems that the OSG we know as 'the White Sox' would not exist. Instead of a Major League Baseball team, there might be a mere collection or group of individuals. Or, if those individuals are organized in a significantly different way, then they may still be members of some OSG, just not the Major League Baseball team we call 'the White Sox'. It seems to be a minimal constraint on metaphysical accounts of OSGs, then, that they at least

count the White Sox (and other OSGs) as no longer existing when no individuals are organized in the right way.

This, of course, is not to say that the White Sox cannot change members over time, or that the group ceases to exist when some of its members fail to be organized in the right way. Indeed, the opposite is true. The White Sox certainly changes members over time. Its members in 2005 were obviously not the same as those in 1906, but the team in 2005, nevertheless, is the same Major League Baseball team – namely, the White Sox. Moreover, the White Sox can intuitively survive even if, for example, nobody stands in the right relations to be the pitcher. Perhaps, in the case where there is no pitcher, the team is temporarily unable to play baseball games, but that does not mean that the team thereby ceases to exist. It may just mean that the White Sox must forfeit its games until it gains a pitcher and can compete. Such a situation commonly occurs in sports. Indeed, there is even an official Major League Baseball rule that explicitly states that any team unable to place nine players on the field forfeits the game to the opposing team.[1]

Interestingly, these features of the White Sox need not hold for every OSG. While groups such as the White Sox, the US Supreme Court, and Thin Lizzy may survive, say, membership change over time, other OSGs such as Simon & Garfunkel may not. Once either Simon or Garfunkel fails to be a member of the group, Simon & Garfunkel arguably ceases to exist. For example, even in the case where Simon is replaced by another musician that performs all of the duties that Simon used to perform, the group Simon & Garfunkel no longer exists. Additionally, we get the same result in the case where Simon simply leaves the

[1] See the official MLB rules at https://content.mlb.com/documents/2/2/4/305750224/2019_Official_Baseball_Rules_FINAL_.pdf, Rule 7.03(b).

group. Simon's failure to be organized in the right way with respect to Garfunkel results in Simon & Garfunkel ceasing to exist. The same, of course, is also true of Garfunkel. It seems, then, that the specific individuals Simon and Garfunkel must be organized in the right way with respect to one another in order for the group to persist. So, while some OSGs may survive membership change and the inoccupation of some of their positions, others may not survive such situations. Acceptable metaphysical accounts of OSGs, then, must be flexible with respect to these features. They must make room for groups to persist under such circumstances, but not require that they do so.

With these features and examples of OSGs in mind, let's consider a fictional scenario. To the extent that this scenario is intuitively possible, it will help us in the following sections to evaluate a number of leading metaphysical accounts of OSGs.

The Santa Barbara Bouldering Club. The Santa Barbara Bouldering Club (SBBC) had three original members when it started in 2010: Bear, Ponyo, and Gattsu. Every Saturday morning, SBBC would meet at Lizard's Mouth, the local climbing area. Once there, the club would decide which problems to work on, how long to work on them, and what restaurant to meet at for lunch. In fact, it used to be Bear's job to decide which problems to work on, Ponyo's job to decide how long to work on them, and Gattsu's job to pick the lunch spot. But in 2011, Gattsu died from a heart-attack, leaving Bear and Ponyo as the only two members of SBBC for some time. Then, in 2015, due to an increase in public interest in bouldering, many individuals joined the group. In fact, so many joined that Bear's and Ponyo's original jobs became obsolete. So, Ponyo became the official SBBC record keeper – she, among other things, was in charge of keeping a record of the club's members – and Bear became the president of the club – some of her tasks included organizing SBBC events and running

meetings for discussing various club-related affairs. Of course, other club-jobs such as the SBBC treasurer needed to be taken up. Deciding who was to hold these other jobs became one of the matters discussed and voted on during SBBC meetings. With these new club-jobs, SBBC flourished until 2019 when membership took a sharp decline due to sudden lack of interest in bouldering. So, due to lack of interest and an inability to fund SBBC events, the remaining members of the club decided to stop meeting, putting an end to SBBC.

Hopefully, this scenario does not seem far-fetched. Of course, some details may need to be filled in, but a club starting out with only three members, each of whom with duties that further the ends of the club, I take it, is perfectly possible. Moreover, if a club can survive a massive increase in membership, then it is possible for that club to also survive a change in the club-jobs had by its members. After all, some jobs that are collectively sufficient for furthering the ends of a small OSG may not be sufficient for furthering the ends of a larger, more complex one. For example, an OSG that does not collect funds will likely have no use for a treasurer, and so, unsurprisingly, it is unlikely that any member of the group will have that job. Large, complex OSGs that charge membership-fees, on the other hand, will certainly have a need for a treasurer. An OSG that starts collecting funds, then, will likely also add at least one new job to those already had by its members: the treasurer job. Now, surely it is not the case that a new OSG is created upon the addition of this new job. Thus, I suspect that most would agree that SBBC persists throughout the entirety of the fictional scenario presented above, even though the current club-jobs are significantly different than those had by SBBC's members when it originated. An adequate metaphysical account of OSGs, then, will not only accommodate our intuitions about familiar examples, but will also accommodate those regarding our fictional scenario of SBBC.

I turn now to the business of presenting prominent accounts of OSGs and discussing how they handle the case of SBBC. My goal in Sections 2 through 4 is to show that each of the metaphysical accounts discussed in those sections fails to adequately capture the persistence conditions of OSGs.

§2 OSGs are their members

Some philosophers maintain that social groups, in general, just are their members. This position can be understood in two different ways: social groups are singular entities that are identical to their members, or they are non-singular entities that are identical to their members. The majority of this section will focus on the latter understanding, since it is not at all clear that the former yields a coherent metaphysical account of social groups.

2.1 The member-identity account

The first way to understand the claim that a social group just is its members is to take a social group as being a singular entity that is identical to its members.[2] Let's call this 'the member-identity account'.

The member-identity account, unfortunately, faces serious problems, one of which is that it is not clear that it is a coherent account of social groups. Social groups typically have multiple, distinct members. For example, according to our fictional scenario, SBBC had three members when it started: Bear, Ponyo, and Gattsu. If SBBC is a singular entity that is identical to its members, then either it is identical to Bear, it is identical to Ponyo, and it is identical to Gattsu; or it is identical to Bear, Ponyo, and Gattsu taken together. But neither case is acceptable. If SBBC is identical to each of its individual members, then, by Leibniz's Law, Bear must be both identical to Ponyo and identical to Gattsu. This, of course, is absurd,

[2] See Baxter 2001.

for Bear would then be both distinct and not distinct from Ponyo (and Gattsu). It must not be the case, then, that SBBC is identical to each of its individual members. That leaves us with understanding the member-identity account as one according to which a social group is a singular entity that is identical to its members taken together. But if this is correct, groups like SBBC must not actually be singular entities, since multiple, distinct individuals taken together is a plurality. Consequently, the member-identity account is incoherent even on this understanding. The member-identity account, as far as I can see, is unacceptable, and so I will no longer consider it as a viable metaphysical account of OSGs.

2.2 The plurality account

One lesson that might be drawn from our brief discussion of the member-identity account is that if social groups just are their members, they cannot be singular entities. Rather, if social groups just are their members, they are non-singular entities. This is the second way of understanding the claim that a social group just is its members. Let's call this view 'the plurality account'.

Let's take a look at an example of the plurality account in action. Suppose it is Saturday, June 12, 2010, and so SBBC met at Lizard's Mouth to work on some boulder problems. A proponent of the plurality account might state the following: SBBC met at Lizard's Mouth. Her statement, however, is not about some singular entity. It is a statement about multiple individuals: Bear, Ponyo, and Gattsu. Under the plurality account, then, group terms such as 'the Santa Barbara Bouldering Club' and 'SBBC' are plurally referring. They are just like the term 'Bear and Ponyo' in the statement 'Bear and Ponyo authored *The Official SBBC Rulebook*'. Notice that this statement is certainly not a conjunction of 'Bear authored *The Official SBBC Rulebook*' and 'Ponyo authored *The Official SBBC Rulebook*',

for each of these statements is false. Moreover, 'Bear and Ponyo', in this statement, clearly does not refer to some unified entity with Bear as one of its parts and Ponyo as another part. Rather, it refers to multiple individuals as individuals taken together. That is, it refers to a plurality – specifically, to that of Bear and Ponyo.

By understanding group terms as plurally referring, a pluralist maintains that social groups are not singular, unified entities. Rather, they are held to be pluralities of individuals. Accordingly, she takes them to be nothing over and above their members. Of course, this is not to say that the pluralist denies that social groups exist. She can talk about social groups quite liberally, perhaps just as liberally as anyone else who thinks social groups exist, though her statements will be about some collection of individuals. The mere fact that her statements are about multiple individuals rather than some singular entity is not enough to conclude that she must be committed to the nonexistence of social groups. Indeed, since she takes a social group as being identical to a plurality of individuals, unless more is said, we should maintain that she thinks social groups exist. After all, if she thinks that the individual members of some group each exist, then she can certainly accept that those individuals exist together, in which case she accepts that "the plurality exists" (i.e., that the members exist). And the plurality, by her lights, just is the group. So, while the pluralist is committed to social groups being non-singular entities, it is not the case that she is thereby committed to their non-existence.

The plurality account, upon first glance, is intuitively appealing. Not only does it comport with a commonsense, pre-theoretic understanding of social groups, it also comports with one assumed by many of those working in the social sciences. It is common for, say, economists and political theorists to adopt methodological individualism, the view that social

phenomena ought to be explained in terms of individual people.[3] The virtue of this methodology is supposed to be that such explanations are ontologically parsimonious since they do not rely on the existence of extra, "mysterious" entities like social structures or social laws.[4] Methodological individualism, it seems, favors a view of the social world as being nothing over and above individual people, which is perfectly compatible with the plurality account. Indeed, if social groups just are pluralities of individuals, then any kind of group activity must be explained in terms of the actions or attitudes of individuals. It would only be natural, under the plurality account, to accept methodological individualism as the proper methodology of the social sciences. The plurality account fits quite nicely with methodological individualism.

Nevertheless, the plurality account is not an adequate metaphysical account of OSGs. To see why, recall that the plurality account identifies a social group with (the plurality of) its members. Pluralities and OSGs, however, have very different persistence conditions. While a plurality of some individuals persists just in case those individuals continue to exist, the typical OSG can survive the death of one of its members.[5] Consider our fictional scenario of SBBC. If the plurality account is correct, then SBBC is identical to the plurality of Bear, Ponyo, and Gattsu, and so the group persists just in case each of those individuals continues to exist. But SBBC can (and, according to the scenario, does) continue to exist even if the plurality of Bear, Ponyo, and Gattsu ceases to exist. So, SBBC must not be identical to the

[3] See, for example, Watkins 1952.

[4] See, for example, Popper 1945.

[5] Notice that a problem also arises when we consider cases where an OSG effectively ceases to exist even though all of its members continue to exist.

plurality of Bear, Ponyo, and Gattsu. So, more generally, OSGs must not be identical to the plurality of their members, and so the plurality account must not be correct.

2.3 A pluralist response

Some philosophers are not deterred by the problem just raised. Horden and Lopez de Sa (2021), for example, maintain that it is not a genuine problem for the plurality account.[6] For the remainder of this section, I will briefly discuss their response and point out that it does not adequately address the above problem.

As we have already seen, by the pluralist's lights, a social group term normally refers to a plurality of individuals. 'SBBC' in 'SBBC is meeting at Lizard's Mouth', for example, refers to the plurality of SBBC's current members. When such a statement is uttered on June 12, 2010, the term refers to the plurality of Bear, Ponyo, and Gattsu. Presupposing the plurality account, let's call this the 'default mode of reference' of social group terms.[7]

Normally, social group terms occur in their default mode of reference which, under the plurality account, designates a plurality of individuals. However, as Horden and Lopez de Sa (2021) point out, social group terms may deviate from their default mode. Consider, for example, 'The Supreme Court of the United States' in the statement 'The Supreme Court of the United States used to have different members'. The term 'The Supreme Court of the United States' does not (nor should it) designate a particular plurality of individuals or other

[6] For similar considerations, see also Schwarzchild 1996, Uzquiano 2004, Lopez de Sa 2007, and Korman 2015.

[7] In contexts where the pluralist takes a social group term as referring to some particular plurality or other, Horden and Lopez de Sa (2021) maintain that the term is being understood "rigidly." Yet, by their own admittance, the plurality to which a social group term "rigidly refers" depends on world and time of utterance. This understanding of "rigid designation" is a significant departure from standard use of 'rigid' with respect to discussions of reference, as established by Kripke (1980). To avoid confusion, I have decided to use a different terminology than that used by Horden and Lopez de Sa. Where they say that a social group term is understood "rigidly," I will say that it occurs in its default mode of reference.

in the context of this statement, otherwise the statement would incorrectly turn out false. Instead, in this context, 'The Supreme Court of the United States' under the plurality account refers to a series of pluralities of individuals over some salient world-time frame, such that some of the pluralities in the series are distinct. In some contexts (e.g., temporal contexts and modal contexts), then, under the plurality account, a social group term may refer to a function from world-times to, say, sets of individuals, the members of which provided some world-time pair are the social group at that time and world. Presupposing the plurality account, let's call this the 'deviant mode of reference' of social group terms.[8]

Given that a social group term's mode of reference depends on the context in which it occurs, Horden and Lopez de Sa (2021) maintain that no problem arises for the plurality account from the fact that, say, SBBC may survive the death of Gattsu. By their lights, the statement 'SBBC may survive the death of Gattsu' is true only if 'SBBC' occurs in its deviant mode, for on any true reading of the statement under the plurality account 'SBBC' must be understood as picking out different pluralities of individuals according to some salient world-time frame. Accordingly, the statement does not predicate 'may survive the death of Gattsu' of any particular plurality, and so its truth is compatible with the plurality account. The argument that SBBC must not be identical to some plurality or other because SBBC may survive the death of Gattsu (along with the premise that no plurality may survive the death of any of its members), then, is invalid according to Horden and Lopez de Sa.[9]

[8] In contexts where the pluralist takes a social group term as referring to various pluralities of individuals over some salient world-time frame, Horden and Lopez de Sa (2021) maintain that the term is being understood "flexibly." As mentioned in the previous footnote, I have decided to use a different terminology here. Where Horden and Lopez de Sa say that a social group term is understood "flexibly," I will say that it occurs in its deviant mode of reference.

[9] See Horden and Lopez de Sa 2021, p 10244.

Indeed, as far as they see it, such an argument parallels Partee's seemingly paradoxical temperature argument: the temperature is rising, but ninety is not rising; so, the temperature is not ninety.[10] [11] On any true reading of 'the temperature is rising', 'the temperature' occurs in its deviant mode, picking out a function from world-times to temperatures according to some salient world-time frame. Accordingly, such a statement does not predicate 'is rising' of any particular temperature, and so its truth (coupled with the premise that ninety is not rising) does not entail that the temperature is not ninety. On Horden and Lopez de Sa's response, then, an argument against the plurality account from the fact that SBBC may survive the death of Gattsu would be one that equivocates on the social group term 'SBBC' just as Partee's argument equivocates on 'the temperature'.

Now, while I think that this response is interesting, I do not find it satisfying for two reasons. First, and foremost, it largely misses the point of the problem raised at the end of Section 2.2; and second, as far as I can see, it is far from clear that the above argument against the plurality account does in fact parallel Partee's temperature argument. In what follows, I will briefly present each of these reasons.

Let's start with the second reason – that the argument against the plurality account does not clearly parallel Partee's temperature argument. In 'the temperature is rising', it is clear that 'the temperature' occurs in its deviant mode, as any plausible interpretation of 'the temperature is rising' will be one on which a series of temperatures, rather than some one particular temperature or other, is increasing. However, any such relevantly similar

[10] For early discussion of Partee's argument, see Montague 1973.

[11] Korman (2015) also argues that various Leibniz Law-style arguments against the plurality account turn on an equivocation similar to that involved in Partee's temperature argument.

interpretation of ‘SBBC may survive the death of Gattsu’ is implausible. To say that something survives (or that some things survive) just is to say that that thing continues (or that those things continue) to exist. In other words, ‘survive’ implies the continued existence of some one thing or unique plurality of things. Accordingly, any plausible interpretation of ‘SBBC may survive the death of Gattsu’ will be one according to which some one thing or unique plurality of things may continue to exist even if Gattsu dies. Yet, if we understand ‘SBBC’ as occurring in its deviant mode under the plurality account, the resulting interpretation will be one about a series of pluralities. In other words, when ‘SBBC’ is taken in its deviant mode, our interpretation will not be about some one thing or unique plurality of things of which we may aptly predicate ‘may survive’. The resulting interpretation will be deeply implausible, as it will be one that is not at all about survival.

Moving on, let’s now turn to the main reason for why I do not find Horden and Lopez de Sa’s response satisfying – it largely misses the point of the problem raised at the end of Section 2.2. The point of concern is not about whether there are interpretations of statements like ‘SBBC may survive the death of Gattsu’ that are available under the pluralist framework. If that were the point, then the kind of response discussed above would be an appropriate one. However, the point of concern is instead about whether the plurality account can accommodate a certain, intuitively true feature of OSGs – that, generally, they are things that may persist through changes in membership.

It turns out that, even on Horden and Lopez de Sa’s response, the plurality account cannot accommodate the commonly held intuition that OSGs, generally speaking, are things that may persist through changes in membership. This is evident in their appeal to an alleged mode of reference shift of ‘SBBC’ in ‘SBBC may survive the death of Gattsu’, as their

interpretation of the statement must be one about a series of pluralities, some of which are distinct. Notice that, strictly speaking, they still cannot say that SBBC in 2011, after the death of Gattsu, is the same OSG as SBBC in 2010 when Gattsu was a member, since by their lights 'SBBC' refers to distinct pluralities at these different times of evaluation.[12] And this is precisely the point of the problem raised at the end of Section 2.2. The plurality account cannot accommodate an OSG's ability to survive changes in membership because pluralities and OSGs simply have different persistence conditions. Accordingly, any of us who maintains that an adequate metaphysical account of OSGs must be one on which OSGs may persist through membership changes should be dissatisfied with this pluralist response. It does little (if anything) to alleviate the problem presented at the end of Section 2.2.

The case of SBBC persisting even though one of its members ceases to exist is certainly not a unique case. There are many instances of OSGs surviving the deaths of some of their members. One such case is that of the rock band AC/DC, which survived the death of its lead singer, Bon Scott. Indeed, after replacing Scott, the group went on to sell its most commercially successful album "Back in Black." Yet, the plurality account cannot accommodate these OSGs persisting through any such changes in membership, since, as Horden and Lopez de Sa concede, a plurality ceases to exist once one of the individuals of that plurality ceases to exist. So, the plurality account is not an adequate metaphysical

[12] At best, Horden and Lopez de Sa may say that SBBC in 2010 is the same OSG *type* as SBBC in 2011 (see their 2021, p. 10245). This, however, requires that we read 'SBBC in 2011, after the death of Gattsu, is the same OSG as SBBC in 2010 when Gattsu was a member' as a statement about type-identity rather than numerical-identity over time. But it is not clear that such a reading adequately reflects the significance of this statement. Intuitively, it is not merely expressing that some OSG in 2011 is of the same type as some distinct OSG from 2010, or that they are, say, occupying the same social role at different times. Rather, as far as I can see, such a statement is significant insofar as it expresses that the OSG in 2011 which lacks Gattsu is one and the very same OSG as that in 2010 which included Gattsu. Nevertheless, even if such a statement is understood as being about type-identity, the pluralist is in no better a position to accommodate the intuition that, generally, OSGs are things that may persist through changes in membership; in which case, the issue raised at the end of Section 2.2 would still stand.

account of OSGs. Survival of the replacement of members is commonplace among OSGs like bands, teams, and clubs.

§3 OSGs are sets

Perhaps an intuitive answer to the question 'What is a social group?' may be something like the following: a social group, regardless of whether it is organized, is a set. Of course, with what set a particular group ought to be identified remains to be specified, and different setist accounts offer different answers. In this section, I will discuss two setist accounts. One account identifies a social group with the set of its current members; the other account identifies a social group with a complex set, one with ordered pairs of possible worlds and sets of instants/membership pairs as elements. I will refer to the former account as 'the naïve set account' and the latter as 'the sophisticated set account'. Most of this section will focus on the sophisticated set account.

3.1 The naïve set account

According to the naïve set account, a social group, regardless of whether it is organized, is identical to the set of its current members.[13] For example, under this account, SBBC just is the set of each of the current members of SBBC. SBBC in 2010 would then be identical to the set of its members in 2010: {Bear, Ponyo, Gattsu}.

The naïve set account may initially seem attractive. Not only is it ontologically parsimonious if we already think that mathematical entities such as sets exist, but it also seems to provide an intuitive explanation of why we talk about social groups the way that we do. For example, we say that Bear is a member of SBBC, so the thought goes, because she is

[13] Uzquiano (2004) refers to the identity claim between a social group and its current members as 'the Set Identity Thesis'.

an element of some particular set – specifically, she is an element of the set of current SBBC members. The naïve set account, then, seems to offer a simple yet intuitively appealing explanation of the group-membership relation: to be a member of some social group G just is to be an element (i.e., set-member) of the particular set with which G is identified. That is, according to the naïve set account, the group-membership relation just is the relation denoted by '$\in$'.

However, despite its advantages, the naïve set account is hardly an adequate metaphysical account of OSGs. Indeed, it is not difficult to see why, especially after our discussion of the plurality account.[14] Consider, again, our fictional social group SBBC. If the naïve set account is correct, SBBC cannot undergo changes in membership. If the group just is the set of each of its current members, then it has those members essentially since the set to which it is identical has its elements essentially. Any group with a different membership must then not be the same group as SBBC, since that group would be identical to a distinct set. But, as we have already seen, this cannot be correct, for SBBC need not have all and only Bear, Ponyo, and Gattsu as its members. So, SBBC must not be identical to the set of its current members, otherwise it cannot be the case that the group loses or gains members over time. More generally, then, an OSG must not be identical to the set of its current members.

3.2 The sophisticated set account

As we have just seen, since sets have their members essentially and OSGs typically do not, the naïve set account is not an adequate metaphysical account of OSGs. Still, some philosophers maintain that social groups are identical to sets. The problem with the naïve set account, they argue, is that it is unnecessarily restricted to identifying a social group with the

[14] For more on this argument against the naïve set account, see Sharvy 1968 and Uzquiano 2004.

set of its members at some particular time or other. So, they maintain that a setist account can accommodate change in group-membership over time, but any such account must abandon this unnecessary restriction. Effingham (2010), for example, offers one such setist account that abandons this restriction. On his account, social groups are identical to complex sets that have ordered pairs of possible worlds and sets of instants/membership pairs as elements. Let's refer to Effingham's account as 'the sophisticated set account'.

According to the sophisticated set account, social groups are identical to complex sets with ordered-pairs as elements. The first element of each ordered-pair is a possible world, and each possible world is an element of exactly one such pair. Such sets, then, have as many elements as there are possible worlds: {<w_1, __>, <w_2, __>, <w_3, __>, …}. The second element of each ordered-pair is itself a set, and its elements are also ordered-pairs. Each of these ordered-pairs has an instant as its first element, such that each instant of the possible world with which the set is paired is an element of exactly one such ordered-pair. The second element of each of these ordered-pairs is either the empty set or a set of individual social beings. The sophisticated set account, then, identifies social groups with complex sets of the following form: {<w_1, {<t_1, {x_1s}>, <t_1', {y_1s}>, <t_1'', {z_1s}>, …}>, <w_2, {<t_2, {x_2s}>, <t_2', {y_2s}>, <t_2'', {z_2s}>, …}>…}.

On the sophisticated set account, an individual *x* is a member of a social group G at some time *t* in some possible world *w* just in case the following conditions hold: (i) G has *y* as an element, where *y* is an ordered-pair whose first element is possible world *w* and second element is a set, *z*, of ordered-pairs of instants and either the empty set or a set of individuals; and (ii) one of *z*'s elements is an ordered-pair whose first element is time *t* and second element is a set that has *x* as one of its elements. For example, consider SBBC. According to

our fictional scenario, Bear, Ponyo, and Gattsu founded SBBC at some particular instant in 2010, and they were its only members at that time. Let's refer to this instant as 't_1' and to the possible world in which this scenario occurs as 'W'. According to the sophisticated set account, SBBC is then a set, one of whose elements must be an ordered-pair that has W as its first element and, as a second element, a set that has the following ordered-pair as an element: $<t_1$, {Bear, Ponyo, Gattsu}>.

Notice that the sophisticated set account is no less intuitively appealing than the naïve set account. Not only is it just as ontologically parsimonious, but it can also offer a similar explanation of why we talk about social groups the way that we do. For example, we say that Bear is a member of SBBC at some time and possible world because, so the thought goes, she is an element (i.e., set-member) of the set of individuals who are members of SBBC at that time and possible world. Moreover, since the group-membership relation is analyzed with respect to a time in a possible world, the sophisticated set account can capture the commonsense intuition that social groups can change group-members over time. For example, consider the following statement regarding some possible world W: Gattsu was a member of SBBC in 2010 but is not one at any point in 2012. A sophisticated set theorist can consistently assert this statement so long as she takes SBBC to be identical to a set S that has the following features: (i) S has *y* as an element, where *y* is an ordered-pair whose first element is W and second element is a set, *z*, of ordered-pairs of instants and either the empty set or a set of individuals, (ii) one of *z*'s elements is a pair whose first element is an instant in 2010 and second element is a set that has Gattsu as one of its elements, and (iii) any element of *z* whose first element is an instant in 2012 is not paired with a set that has Gattsu as one of

its elements. The sophisticated set account, then, does not encounter what is commonly seen as the fatal problem for the naïve set account.[15]

The sophisticated set account certainly seems to be the more promising of the two setist accounts. However, it cannot adequately capture our fictional scenario of SBBC. The main problem here is that while sets are often considered to be eternal entities, there are a number of conditions under which we would normally think an OSG has ceased to exist. For example, according to our fictional scenario, when the remaining members of SBBC collectively decide to stop meeting and end the club in 2019, the OSG no longer exists. But any set with which the sophisticated set theorist might identify the group will still exist. So, since OSGs like SBBC can cease to exist due to the actions of its members while sets are eternal, OSGs must not be identical to any set, regardless of how complex it might be.

3.3 A sophisticated set theorist response

Aware of this apparent difference in persistence conditions, Effingham offers a response. He suggests that, as a matter of philosophical expediency, we should think that some sets are located in spacetime.[16] The most natural cases of spatiotemporally located sets would be sets whose elements are all spatiotemporally located. Lewis (1986), for example, suggests that such sets are located where their elements are located, and that they are (in many cases) multiply located entities. Similarly, Effingham suggests that we should think of a set as being located at *r* at time *t* just in case *r* is the union of every spacetime region occupied at *t* by the individuals whose set is paired with instant *t*. For example, consider again our fictional scenario. Let's refer to the possible world in which the scenario takes

[15] See Effingham 2010.

[16] See Effingham 2010, p 257-8.

place as 'W' and the time at which Bear, Ponyo, and Gattsu found SBBC as 't_1'. Further, let's refer to the time in 2019 at which SBBC ceases to exist as 't_2'. The set with which the sophisticated set theorist identifies SBBC will then include the following two ordered-pairs as elements of the second element of the ordered-pair whose first element is W: <t_1, {Bear, Ponyo, Gattsu}> and <t_2, {}>. According to Effingham's suggestion, we should think that the set with which SBBC is identified is located at t_1 but unlocated at t_2 – that, at t_1, the set is multiply located at the spacetime regions occupied by Bear, Ponyo, and Gattsu, but it is unlocated at t_2 since that instant is paired with the empty set.

This response, however, is rather puzzling, since it is difficult to see how it addresses the problem. Being unlocated is not tantamount to not existing. Pure sets and sets of numbers, for example, are unlocated. After all, they do not have spatiotemporally located individuals as elements. Still, they exist. It is certainly a mistake, then, to conclude from something's being unlocated that it thereby does not exist. So, even if we accept Effingham's suggestion concerning when we should think a set is located, the sophisticated set account still cannot accommodate cases of OSGs that cease to exist.

But perhaps there is a charitable interpretation of Effingham's response. Ritchie (2013) discusses the following response on behalf of the sophisticated set theorist, which seems to align with Effingham's suggestion: we should think of the group as existing at a time *t* in possible world *w* just in case *t* (in *w*) is paired with a set of individuals. Indeed, this may be what Effingham has in mind – that a group exists just in case the set with which it is identified is spatiotemporally located. If so, then under the sophisticated set account, a group would not exist at a time *t* in possible world *w* just in case *t* (in *w*) is paired with the empty set. SBBC, from our example just discussed, would then not exist at time t_2 in world W, for

that instant in that possible world is paired with the empty set. On this interpretation of Effingham's response, then, not only is the set with which SBBC is identified unlocated, but the group also does not exist.

Unfortunately, this interpretation of Effingham's response is not compatible with the sophisticated set account. To see why, let's once again consider SBBC. Just as we did last time, let's refer to the possible world in which our fictional scenario occurs 'W' and the instant at which SBBC ceases to exist 't_2'. Recall, then, that the set, S, with which the sophisticated set theorist identifies SBBC has the following ordered-pair as an element of the set associated with possible world W: $<t_2, \{\}>$. Now, according to this interpretation of Effingham's response, the group SBBC does not exist at t_2 in W. However, what does exist at t_2 in W is set S, since sets are eternal.[17] Consequently, under this interpretation, SBBC must not really be identical to set S. Indeed, if SBBC ceases to exist at any time at any possible world, it will not be identical to any set under this interpretation of Effingham's response. This interpretation, then, implicitly rejects the identity of SBBC and a set, and so it is incompatible with the sophisticated set account.

But maybe Effingham has something else in mind. Perhaps he does not mean to suggest that a set merely lacks location at any instant that is paired with the empty set, but that it does not exist at that instant. If so, notice that neither SBBC nor the set, S, with which the sophisticated set theorist identifies SBBC would exist at time t_2 in W according to his suggestion. So, if this is what Effingham has in mind, perhaps his response does address the

[17] Notice that the problem I raise here does not require that one accepts my claim that sets, generally, are eternal entities. Even if one thinks that a set exists whenever, and only whenever, its elements do, the same problem arises for the interpretation of Effingham's response that is in question. Since both the empty set and the instant t_2 exist at t_2 in W, it is still true that set S exists at t_2 in W while SBBC does not.

problem at hand after all. However, such a suggestion is deeply mysterious. Both the empty set and the instant t_2 exist at t_2 in W, and so surely the ordered-pair $<t_2, \{\}>$ exists at that time and possible world as well. Why, then, should we think that S ceases to exist at t_2 in W in virtue of t_2's being paired with the empty set? There is, as far as I can see, no good reason to accept this suggestion, especially not "as a matter of philosophical expediency."

The case of SBBC ceasing to exist in virtue of the actions of its members cannot be captured by the sophisticated set account. But this is certainly not a peculiar aspect of our fictional scenario, one unique to SBBC and no other OSG. For example, rock bands commonly go out of existence due to their members parting ways, and local book clubs cease to exist when their members lose interest and stop meeting. Any adequate metaphysical account of OSGs, then, must be able to accommodate this feature – that OSGs may cease to exist when certain conditions are met. Thus, the sophisticated set account is not an adequate metaphysical account of OSGs. Next, I examine the view that OSGs are realizations of structures.

§4 OSGs are realizations of structures

The last metaphysical account that we will discuss focuses solely on OSGs, rather than on social groups in general. In recent work, Ritchie (2013, 2015) has argued that OSGs are realizations of structures. Let's call this account 'the structures account'. In this section, I will focus on the structures account of OSGs. I will start by giving a general description of the structures account and then briefly discuss how it compares to the accounts examined so far. I will then discuss in more detail what the structuralist takes a structure to be, since I think this is important for seeing why the structures account cannot accommodate our

fictional case of SBBC. Finally, I will discuss why the structures account cannot adequately accommodate SBBC.

4.1 The structures account

According to the structures account, OSGs have two main components. The first of these components is the group's structure. This, according to Ritchie (2013), can be represented by nodes and edges, where the edges represent the functional relations that hold amongst the group members and the nodes represent the various group roles that may be occupied by those members.[18] For example, to represent SBBC's structure in 2015, there would be at least two nodes, one labeled 'treasurer' and another labeled 'member'. These nodes would be connected by edges that represent the various relations in which individuals occupying them stand. For instance, the treasurer handles all SBBC funds, including collection of annual membership dues from all SBBC members. Accordingly, the node labeled 'member' would then be connected to the 'treasurer' node via edge which represents the 'pay annual membership dues to' relation.

Some nodes, under this account, may allow for only a certain number of occupants at a time while others may allow for an unlimited number of occupants at a time. In our example of SBBC's structure, the node labeled 'treasurer' is an example of a node that allows for only one occupant. The node labeled 'member', however, is an example of a node that allows for an unlimited number of occupants at a time. Notice that this flexibility of node

[18] Throughout this section, when discussing the edges of structures, by 'relation' I more specifically mean 'functional relation'.

occupancy is an important feature of the structures account. With it, the structures account can capture change in group membership over time without requiring change in structure.[19]

The second component of an OSG, according to the structures account, is that it is made up of things. As far as the structuralist sees it, there are no memberless OSGs. If an OSG exists, then there are individuals that occupy the nodes of a particular structure. Hence, an OSG under this account is identified as a realization of a structure. Now, for a thing *x* to occupy a node *n* in a structure *s*, two conditions must be met: (i) *x* must stand in the functional relations required by *n* to the other node occupiers of *s*, and (ii) every node in *s* must be occupied.[20] So, in order for, say, Bear to occupy the 'president' node of SBBC's structure, not only must she stand in all the functional relations required by that node, but every node in the structure must be occupied as well.

Notice that the second condition for node occupancy – that every node in the structure must be occupied – does not commit the structuralist to the claim that OSGs with multi-node structures must have at least one member per node. Indeed, the opposite is true. Under the structures account, an OSG with a multi-node structure may exist at some time even though it has only one member at that time. If some individual stands in all of the functional relations required by each node of some multi-node structure S at some time t, she occupies every node of S at t. In such a case, an OSG with only one member would exist at t under the structures account. Whether multiple individuals are required to realize some structure, then, ultimately depends on the relations required by the nodes of that structure. Unless some of

[19] See Ritchie 2013, p 13.

[20] See Ritchie 2013 and Ritchie 2015.

these relations are irreflexive, it is perfectly possible under the structures account for every node of that structure to be occupied by a single individual.[21]

The structures account is an attractive one since it seems to capture many intuitive features of OSGs, ones that the previously discussed accounts struggle to capture. First, as mentioned above, the structures account has no trouble capturing change in group membership over time. So long as an individual occupies a node in the structure of some OSG while every node in that structure is occupied, she is a member of that OSG. So, when Cato transitions from not standing in the relations required by the 'member' node of SBBC's structure to standing in them, she thereby joins the group, provided that no node of this structure is unoccupied. Second, given the structuralist thesis that OSGs are realizations of structures, the structures account seems to have no trouble capturing the commonsense intuition that OSGs are not eternal entities. If this thesis is correct, then an OSG persists only if its structure continues to be realized.[22] Accordingly, the structuralist can consistently maintain that SBBC then ceases to exist after its members collectively decide to stop meeting. After all, once they stop meeting, there is no individual that stands in the functional relations required by the nodes of SBBC's structure. Consequently, SBBC's structure is no longer realized, and so the group no longer exists by the structuralist's lights.

4.2 What is a structure?

[21] Ritchie presents this point – that it is possible under the structures account that there be single-membered OSGs – as a virtue of the structures account, but it is not clear to me that it is a virtue. If there is a structure that allows for all of its nodes to be occupied by a single individual, then it seems possible for that structure to be initially realized by a single individual. But this is super counterintuitive, since any such realization surely is not a social group, let alone an OSG. We can imagine a case where an individual single-handedly occupies all of the nodes of some structure – thereby realizing that structure – and then dies. What we have, according to the structures account, then, is a case where an OSG comes into existence and then ceases to exist, but throughout its career it only had one member. Intuitively, this is not a social group at all.

[22] See Ritchie 2013 and Ritchie 2015.

Before presenting why the structures account cannot accommodate our fictional scenario of SBBC, I want to briefly discuss what the structuralist takes a structure to be. At the beginning of section 4.1, I mentioned that the structuralist represents structures by nodes and edges. But this clearly is not to say that she identifies them with those nodes and edges. Indeed, Ritchie (2018, forthcoming) explicitly states that structures ought not be identified with graphs of nodes and edges. So, what exactly is a structure supposed to be under the structures account?

Ritchie, following Koslicki 2008, takes structures to be "complexes/networks of relations that make available nodes/positions that might place additional requirements on their occupiers" (forthcoming, p 6). Consider, for example, a molecule of table salt. In order for there to be a molecule of table salt, an ionic bond must hold between a sodium ion and a chloride ion. If no such bond holds between those specific kinds of atoms, there is no molecule of table salt. There seems, then, to be something requiring that sodium and chloride ions be ionically bonded in order for there to be molecules of table salt. That something, according to this view, is the structure of table salt. A structure, then, is a network of relations that lay out positions to be held by particular objects.

There are at least two features of structures under Ritchie's view that are important to note. The first is that structures are the kinds of things that are capable of being realized. The structure of table salt, for example, is neither the molecule itself nor the sodium and chloride atoms that are ionically bonded. The structure is more like a non-concrete blueprint for constructing an NaCl molecule. It is like a set of directions that numerous collections of objects may simultaneously follow and, in doing so, each form a molecule of table salt. So,

structures are a kind of non-concrete entity. Indeed, as Ritchie (forthcoming) claims, they may plausibly be considered universals.[23]

The second noteworthy feature of structures has already been mentioned above, but it is worth mentioning again. A structure is an entity such that, in order for it to be realized, all of the positions its relations make available must each be occupied. To see this, consider, again, the structure of table salt. If an ionic bond holds between a chloride ion and some non-sodium ion, these ions fail to realize the structure for table salt since they do not occupy all of the positions made available by that structure. This feature of structures can be seen in the structuralist's existence condition for OSGs: an OSG exists only if the nodes of its structure (i.e., the positions made available by its structure) are all occupied. Indeed, when we consider that the structuralist identifies an OSG with the realization of a structure, this feature becomes even more apparent, since we can plausibly rephrase the existence condition as follows: the structure of some OSG is realized only if that structure's nodes are all occupied. For a structure to continue to be realized, then, all of its nodes must be occupied and continue to be occupied. Any gap in node occupation results in a failure to realize that structure.

4.3 Change in functional relations

Let's now turn to why the structures account cannot capture our fictional case of SBBC. Recall that about halfway through its career, SBBC gains so many members that the club-jobs had by its original members become obsolete. For example, before the increase in membership, it was Gattsu's job to decide where the group will eat lunch. However, after the increase, SBBC becomes so large that trying to organize lunch after each gathering is no longer feasible. Accordingly, Gattsu's former duties are no longer held by any of the group's

[23] For more on the nature of structures, see Koslicki 2008, Shapiro 1997, and Putnam 1967.

members. So, with the increase in membership, some club-jobs are no longer had by any group-member.

But notice what must be the case if Gattsu's former job, which I will refer to as the 'lunch coordinator' job, is no longer held by any member of SBBC. For nobody to be the lunch coordinator, it must be the case that it is no group-member's duty to decide where SBBC will gather for lunch after each outing. No member will then be related to each of SBBC's members by the 'tell where to gather for lunch' relation. So, when this job is no longer held by any of SBBC's members, it must be the case that no member stands in the functional relations required by the 'lunch coordinator' job. But if no member stands in the relations required by this club-job, then a position in the group's structure must no longer be occupied. After all, according to the structures account, in order for something to occupy a node of some structure, that thing must stand in all of the functional relations required by that node. When the 'lunch coordinator' job is no longer held by any member of SBBC, then, an available position in SBBC's structure thereby fails to be occupied.

Now, let's refer to the OSG in our fictional scenario in 2010 – that is, SBBC when Gattsu is the lunch coordinator – as 'SWL' (which stands for 'SBBC with a lunch coordinator'). When no member of SWL holds the duties of the lunch coordinator in 2015, a position in SWL's structure fails to be occupied. Under the structures account of OSGs, then, SWL ceases to exist in 2015. To see why, consider again the persistence condition of an OSG under the structures account: an OSG persists only if its structure continues to be realized. As we have already seen, for a structure to continue to be realized according to the structuralist, all of the positions that the structure makes available must remain occupied. So, since at least one position made available by SWL's structure fails to be occupied in 2015, its structure

must not be realized at that time. If the structures account is the correct metaphysical account of OSGs, then, SWL must not continue to exist in 2015. But SWL, according to our fictional scenario, does continue to exist in 2015. Indeed, the OSG continues to exist until 2019, well after the 'lunch coordinator' job stops being held by any of its group-members. The structures account gets the wrong verdict here.

To generalize, the structures account cannot accommodate OSGs that undergo significant changes in the functional relations amongst their members. By 'significant' I mean the kinds of changes like that endured by SBBC – changes that, for example, result in the vacancy of some position made available by (what used to be) the OSG's structure. Such changes, as we have seen, result in the OSG ceasing to exist under the structures account. However, some OSGs can endure these kinds of changes, and SBBC is one intuitive case of such a group. For other cases, one need only look to OSGs that have expanded and developed over time. The mobile phone company Nokia, for example, originated in 1865 as a paper manufacturer, and throughout its career it expanded and eventually focused primarily on telecommunications in the 1990s.[24] Surely, when the company stopped producing paper, there was no longer a need for someone to press and dry cellulose fibers. Accordingly, it would not have been anybody's job to perform such tasks. Any position functionally situated in Nokia's structure by, say, the 'take wet cellulose fibers from' relation would then no longer have been occupied. Indeed, any position in this structure whose functional relations require that the company makes paper would no longer be occupied. So, according to the structures account of OSGs, it is not the case that Nokia has persisted since 1865. But Nokia has persisted since 1865, and so the structures account must not be correct.

[24] For more on Nokia's history, see https://www.nokia.com/about-us/what-we-do/our-history/.

4.4 The structure of OSGs over time

A natural response to the problem just presented for the structures account might be to maintain that the structure of an OSG can change over time. The thought here is that if an OSG's structure can have different nodes and edges at different times, then the structuralist can account for OSGs that undergo significant changes in the functional relations amongst their members. For example, rather than accept that the 'lunch coordinator' position in SBBC's structure goes unoccupied in our fictional scenario, the structuralist might instead maintain that SBBC's structure changes when it expands. Accordingly, when the 'lunch coordinator' position is rendered obsolete, it is simply no longer a position made available by the constituent relations of SBBC's structure. Thus, when it is no longer the case that some member of SBBC stands in the 'tell where to gather for lunch' relation with each of the group-members, it is not the case some position in SBBC's structure is thereby unoccupied.

There is, however, a problem with this response. The statement 'the structure of an OSG can change over time' is ambiguous, since it is unclear what exactly is changing over time. The statement can be read as either:

(1) the structure *S* of an OSG can change over time *such that S may have different nodes and edges at different times*,

or

(2) the structure of an OSG *G* can change over time *such that G may have different structures at different times*.

When we examine the above response with each of these readings in mind, it is no longer clear that it may plausibly be endorsed by the structuralist.

According to the response under reading (1), OSGs whose members undergo significant changes in their functional relations are considered perfectly compatible with the structures account because the constituent relations of their structures make available different positions at different times. For example, according to this interpretation of the response, the 'lunch coordinator' position is made available by SBBC's structure at some time t_1 but not at some later time t_2. Additionally, SBBC's structure at t_1 is identical to its structure at t_2. Notice, then, that this interpretation requires that structures be the kinds of things that can change over time – specifically, it requires that structures be capable of changing their constituent relations over time such that they make available different positions. But this is deeply implausible. Structures, recall, are the kinds of things that are capable of being realized. Hence, as previously mentioned, they are non-concrete entities. Perhaps they are abstracta, or perhaps, as Ritchie suggests is plausible, they are universals. Neither abstracta nor universals, however, are the kinds of things that can change over time.[25] So, structures are characteristically not the kinds of things that are capable of changing their constituent relations over time. The response in question under reading (1), then, cannot plausibly be endorsed by the structuralist.

Let's now turn to the response in question under reading (2). When the members of an OSG undergo significant changes in their functional relations, it might be thought that the OSG has a new structure. That is, when such changes occur, it might be thought that those

[25] Perhaps one holds otherwise, for they think that abstracta such as plays and songs are capable of changing over time. For example, someone might think that a play changes after undergoing revisions by its playwright. For anyone who maintains that such abstracta can change over time, let me qualify my claim that neither abstracta nor universals are the kinds of things that can change over time. Structures, as far as I can see, are less similar to plays and songs than they are to numbers and sets. That is, structures are more like mathematical objects than they are things created by authors and artists. Mathematical objects, however, are distinctively the kinds of things that are unchanging. So, let me qualify my claim accordingly: Neither abstracta nor universals *to which structures are relevantly similar* are the kinds of things that can change over time.

changes result in the realization of a new network of relations. Accordingly, it might be suggested that any OSG that undergoes such changes has, as a result, a different structure. This is what is suggested by the response in question under reading (2). For example, according to this interpretation of the response, the reason SBBC no longer has room for a lunch coordinator after its expansion is because it has a different structure, one that does not make available the 'lunch coordinator' position.

Unfortunately, (2) is not compatible with the structures account. To see why, suppose that at some time t_1 some OSG G with structure S comes into existence. According to the structures account, an OSG just is a realization of a structure. So, if the structures account is correct, then G at t_1 just is the realization of S. Now, consider the persistence condition of OSGs under the structures account: an OSG persists only if its structure continues to be realized. By the structuralist's lights, then, G persists only if G's structure continues to be realized. In other words, since G just is the realization of S according to the structures account, G persists only if S continues to be realized. If the structures account is correct, then, G persists only if S continues to be realized, and so G cannot have a different structure at a later time. Accordingly, the structuralist cannot endorse the response in question under reading (2).

The case of SBBC enduring significant changes in the functional relations amongst its members cannot be accommodated by the structures account, for the structures account requires of an OSG that it have the same structure if it is to persist. On the structures account, then, SBBC in 2015 is not the same OSG as SBBC in 2010, present-day Nokia did not start as a paper and pulp manufacturer in 1865, and the White Sox did not survive the American League's adoption of the designated hitter rule in 1973. But this is not correct, and so the

structures account is unacceptable. Any adequate metaphysical account of OSGs, then, must allow for OSGs to endure structural changes.

§5 Conclusion

We examined three leading metaphysical accounts of OSGs: the plurality account, the sophisticated set account, and the structures account. Each account was ultimately deemed unacceptable on the grounds that it cannot accommodate the provided fictional case *The Santa Barbara Bouldering Club,* a case that describes the career of a perfectly possible OSG. Throughout the discussion, I argued that the plurality and structures accounts counterintuitively cut the career of SBBC short and that the sophisticated set account does not cut the group's career at all when SBBC has surely ceased to exist.

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II. What is an organized social group?

§0 Introduction

The aim of this paper is to provide a novel metaphysical account of organized social groups (OSGs) that adequately accommodates the various changes that they can (or might) endure.[26] This, perhaps unsurprisingly, is trickier than it may seem. Part of the difficulty here is that there is a great variety of OSGs, many of which can survive various changes throughout their careers that other OSGs cannot. Major League Baseball teams, families, and music duos are just a few examples of types of OSGs that seem to have different persistence conditions. For instance, while the Chicago White Sox may have different members from one year to the next, Simon & Garfunkel may not.[27] Any adequate account of OSGs, then, must somehow accommodate the various ways that such things can (or cannot) change. In this paper, I propose and sketch out an account of OSGs that does this. My goal here is to show that we can accommodate such a variety of OSGs if we take them to be composite wholes that may vary in their constitutions.

I proceed in two main sections. In Section 1, I start by drawing a comparison between some commonly held intuitions about material objects and those about OSGs. I hope to show that the relationship between a material object and its material parts is intuitively analogous

[26] Notice that I will not be concerned here with giving an account of things like race or gender groups, since such social groups are not internally organized in any clear way. For discussion of this distinction between organized and non-organized social groups, see Ritchie 2015 and Ritchie 2018. For various accounts of social groups in general or critical discussions of those accounts, see Uzquiano 2004, Effingham 2010, Ritchie 2013, Uzquiano 2018, Thomasson 2019, Epstein 2019, and Wilhelm's forthcoming.

[27] I am assuming here that groups like Simon & Garfunkel are OSGs that have their members essentially. Any OSG that does not have Simon or does not have Garfunkel or has members other than Simon and Garfunkel, I take it, is not Simon & Garfunkel. Of course, one might always argue that this is a case where it merely looks like membership is essential. Perhaps it is – this is a hard case. Regardless, as far as I can see, it does not seem impossible that there are some OSGs that have their members essentially.

to the relationship between an OSG and its members, and so we are prima facie warranted in treating these relationships similarly. I then end Section 1 by briefly laying out an account of the relationship between a material object and its material parts that may be readily utilized for our purposes. The account presented is Kit Fine's theory of embodiment. In Section 2, I closely follow the theory of embodiment and eventually sketch out an account of OSGs that I call 'the function correspondence account'.

§1 OSGs and material objects

From families to rock bands to recreational league football teams, there are a lot of different OSGs in the world. Many of these OSGs may survive certain changes that others may not; and many OSGs might have been different in ways impossible for others to have been different. With so many different OSGs, we naturally have a whole range of intuitions about what they can (or cannot) survive and how they might have (or might not have) been different. Whether we think an OSG can survive, say, a change in its members over time, I take it, heavily depends on the sort of OSG we have in mind. Yet this, notice, is not unique to OSGs. Similarly, from statues to pieces of clay to car engines, there are a lot of different material objects in the world. And just as we have varying intuitions about what OSGs can (or might) endure, we have similar varying intuitions about material objects.

This similarity in intuitions, I think, is no mere coincidence, though I will not try to show that here. Rather, the goal of the first part of this section is to show that the relationship between an OSG and its members is intuitively analogous to the relationship between a material object and its material parts, and so we are prima facie warranted in treating these relationships similarly. To draw this analogy, I point out some commonly held intuitions about material objects and their material parts and compare them to commonly held

intuitions about OSGs and their members. In the second part of this section, I briefly lay out Kit Fine's theory of embodiment, an account of the relationship between a material object and its material parts. I will go on to utilize the theory of embodiment in formulating the function correspondence account of OSGs in the next section. Accordingly, the metaphysical account of OSGs that I will ultimately propose is a composition view where an OSG is a whole that is (at least, partially) composed of its members, rather than, say, a kind of mathematical entity or plurality (cf. Effingham 2010, Uzquiano 2018, and Wilhelm's forthcoming).

1.1 Common intuitions about material objects and OSGs

In recent literature, philosophers have pointed out a striking similarity between OSGs and material objects.[28] A number of commonly held intuitions concerning the relationship between material objects and their material parts are very similar to commonly held intuitions concerning the relationship between OSGs and their members. Let's consider a few of them.

1.1.1 Change in material parts/members over time

One commonly held intuition about the relationship between material objects and their material parts is that material objects can usually survive changes in their material parts over time.[29] Consider, for example, a ship that is made from several planks of wood and nails. Over time we may replace the wood and nails, perhaps for maintenance purposes, without thereby destroying the ship. A bass guitar can also undergo changes in its parts

[28] See Uzquiano 2004, Hansson Wahlberg 2014, Epstein 2015, and Hawley 2017.

[29] I use the term 'usually' here because there are some exceptions (i.e, cases where we may be inclined to think that the material object in question cannot survive a change in its material parts). These are what I refer to as 'exception cases'. I discuss exception cases below in Section 1.1.4.

without thereby ceasing to exist. When the cheap, plastic control knobs of my bass break off, I may replace them with brand-new knobs – indeed, perhaps even high-quality ones – without thereby destroying the bass. Even a statue made from, say, clay can survive the replacement of its material parts. Suppose that an artist, while transferring one of her statues from studio to home, accidentally drops her work, resulting in an arm of the statue breaking off and shattering. Surely, the artist may replace the arm with a new portion of clay without thereby also replacing her statue with a brand-new one.

Similar changes with respect to their members, notice, may be endured by OSGs. For instance, Major League Baseball teams like the White Sox may gain or lose players from one season to the next. Yet, such a change amongst its members surely does not result in the White Sox ceasing to exist. So, just as it is intuitively clear that material objects can usually survive changes in their material parts over time, it is intuitively clear that OSGs can usually survive changes amongst their members over time.

1.1.2 Difference in material parts/members across worlds

Another commonly held intuition about the relationship between material objects and their material parts is that, in many cases, material objects might have had material parts that they do not have in actuality.[30] Consider some of the objects discussed above. A ship – let's call it 'The Demeter' – made from several planks of wood and nails at some time, for example, might have been made from slightly different parts. Suppose that those in charge of repairing damages sustained by The Demeter use some planks of wood that are different from those they actually use. Intuitively, the resulting ship in this scenario is still The Demeter, even though the material parts from which it is made are not the same from which

[30] I say "in many cases," here, since there are some exception cases. I discuss these cases in Section 1.1.4.

it is actually made. Similar, perfectly possible scenarios concerning the bass guitar and the statue can also be imagined. I might replace the broken control knobs with ones different from those I actually use, and the artist might repair her statue with a portion of clay that she does not actually use. In either case, the resulting material object is intuitively the same as that in actuality.

This commonly held intuition concerning the relationship between material objects and their material parts (or, at least, an intuition very similar to it), notice, is also commonly held with respect to the relationship between OSGs and their members. Just as a material object might have had material parts that it does not actually have, an OSG might have had members that it does not actually have. For instance, had a more desirable player been available, it seems true that the White Sox might have signed someone other than Andrew Vaughn for their first-round pick in the 2019 First-Year Player Draft. Possibly, then, the White Sox has different members than it does in actuality. So, just as it seems that (in many cases) material objects have their material parts merely accidentally, OSGs (in many cases) also seem to have their members merely accidentally.

1.1.3 Arrangement of material parts/members

Let's consider one last intuition that is commonly held with respect to the relationship between material objects and their material parts and the relationship between OSGs and their members. Intuitively, a material object is more than the mere sum of its material parts, for the arrangement of those parts matters for the existence of the material object. For example, unless the clay from which a statue is made is arranged in the correct shape, the statue does not exist. We can imagine a case where some humanoid statue – let's call it 'David' – ceases to exist while all of the bits of clay from which it was made persists.

Suppose that the artist who created David is not pleased with her creation, and so she carefully remolds the clay from which David is made into a sphere, making sure not to lose or destroy any of it. The humanoid statue David certainly no longer exists, but we cannot say the same of its former material parts since those have merely been rearranged. The arrangement of its material parts, then, seems to matter for the existence of the statue. Similar cases concerning material objects like ships and bass guitars, I take it, are easy to imagine.

Similarly, for the existence of OSGs, the arrangement of their members is also important. The White Sox, for example, surely would not exist if its members were not organized in the right way. Instead of a Major League Baseball team, there might be a mere collection or group of individuals. Or, if those individuals were organized in a significantly different way, they might still be members of some OSG, just not the Major League Baseball team we call 'the White Sox'. So, just as the material objects require that their material parts be arranged in a certain way, OSGs similarly require that their members be arranged in a certain way.[31]

1.1.4 Exception cases

There are, however, some cases about which it seems we would not have the intuitions discussed above. For instance, consider a particular piece of clay, which I will refer to as 'Aiken'. Following Gibbard (1975), by 'piece', I do not mean the portion of clay of which Aiken consists. A portion of clay may continue to exist when distinct portions are stuck to it or when it is broken and scattered. A piece of clay, on the other hand, is something

[31] At this point, one might point out that the three points of analogy discussed in 1.1.1, 1.1.2, and 1.1.3 also hold for abstract artifacts like songs. Nevertheless, I take it that we are justified in treating OSGs as material objects, rather than certain abstracta, since OSGs are located in space while things like songs are not. The Chicago White Sox, for example, often plays games at US Cellular Field in Chicago, Illinois.

whose material parts are stuck together, such that all and only the portions of clay of which the piece consists are stuck together. Accordingly, a piece of clay comes into existence either by breaking off a portion from an already existing piece or by sticking a portion onto an already existing piece; it ceases to exist either by having a portion broken off of it or by having a portion stuck to it.[32] Aiken, then, cannot change its material parts over time, and it is not the case that it might have had material parts that it does not have in actuality.

Material objects like Aiken, it seems, have their material parts essentially. Nevertheless, we may still distinguish such objects from the mere sum of their material parts on the grounds that arrangement matters for the existence of the former but not the latter. If we were to separate Aiken's constitutive portions of clay without destroying them, Aiken would cease to exist even though its material parts would not. The sum of Aiken's material parts, then, may continue to exist while Aiken does not (though, of course, these material parts would no longer be Aiken's, since Aiken does not exist). Hence, even in exception cases like that of a piece of clay, where the object's material parts seem more intimately connected than usual to the object itself, we may still draw a distinction between the material object and the mere sum of its material parts based on considerations discussed in 1.1.3.

Again, similar considerations hold of OSGs. Just as there are some material objects about which it seems we would not have the intuitions discussed above, there are OSGs about which it seems we would also not have the above intuitions. We have already seen an example of one such OSG. Intuitively, music duos like Simon & Garfunkel cannot undergo changes in its members over time, and it is not the case that the duo might have had members that it does not have in actuality. Nevertheless, we may still distinguish OSGs like Simon &

[32] For more on this distinction between a portion of clay and a piece of clay, see Gibbard 1975.

Garfunkel from the mere collection of their members. Indeed, we may draw this distinction for the very same reason (or, at least, for a very similar reason) that allows us to draw a distinction between the piece of clay and the mere sum of its material parts: arrangement of members matters for the existence of OSGs. When Simon & Garfunkel broke up as a duo, Simon existed and Garfunkel existed but the musical duo did not. Even our intuitions about exception cases of OSGs that have their members essentially, then, seem to map onto to our intuitions about exception cases of material objects that have their material parts essentially.

So, the intuitions that we commonly have about the relationship between material objects and their material parts seem to run parallel to the intuitions commonly had about the relationship between OSGs and their members. Even in cases where a material object seems to have its material parts essentially, the intuitive reasons we may give to distinguish the object from the mere sum of its material parts mirror those we may give to draw a distinction between an OSG that seems to have its members essentially and the mere collection of its members. As far as I can see, then, the relationship between an OSG and its members is intuitively analogous to the relationship between a material object and its material parts. And so, I think that, in assessing the relationship between an OSG and its members, we would do well to follow in the footsteps of metaphysical accounts that assess the relationship between a material object and its material parts. In the remainder of this section, I consider one such account.

1.2 An applicable account of the relationship between a material object and its material parts: the theory of embodiment

There are a number of competing accounts concerning the relationship between a material object and the material parts from which it is composed.[33] One such account that may be readily utilized for our purposes is one proposed by Kit Fine (1999): the theory of embodiment. In the remainder of this section, I briefly lay out Fine's theory of embodiment. The purpose of presenting Fine's theory here is to ultimately propose an account of OSGs that follows it.[34] I propose such an account in Section 2.

The theory of embodiment has two main parts: the first is the theory of rigid embodiment; the second is the theory of variable embodiment. The latter theory, which yields an account of material objects whose material parts are had temporarily, is what I ultimately want to focus on, but it will be helpful to first discuss the theory of rigid embodiment. Accordingly, I will start with Fine's theory of rigid embodiment and then move on to the theory of variable embodiment.

1.2.1 Rigid embodiment

According to Fine (1999), given objects o_1, o_2, ..., and o_n and some relation *R* that may hold of these objects, there is an object that exists when and only when o_1, o_2, ..., and o_n stand in *R*. He refers to such an object as a 'rigid embodiment'; and, more specifically, he refers to the rigid embodiment of objects o_1, o_2, ..., and o_n in relation *R* as 'o_1, o_2, ..., o_n/*R*'. By Fine's lights, objects such as sandwiches, bouquets of flowers, and two-piece bathing suits are examples of rigid embodiments. A simple cheese sandwich made from two slices of bread (s_1 and s_2) and a piece of cheese (c), for instance, exists when and only when the piece of cheese is between the slices of bread. So, under the theory of embodiment, such an object

[33] See, for example, Koslicki 2008 and Thomson 1983.

[34] Since the purpose of discussing Fine's theory is to build off of it, I will not be concerned here with criticizing or defending it.

is taken to be the rigid embodiment c, s_1, s_2/B, where 'B' stands for the betweenness relation that holds amongst objects *a*, *b*, and *c* just in case *a* is between *b* and *c*. Similarly, bouquets of flowers and two-piece bathing suits are taken as rigid embodiments of material objects that stand in certain relations.

A rigid embodiment, then, is a composite object that has some material objects o_1, o_2, …, and o_n and some relation *R* in which those objects stand as its parts. However, unlike standard accounts of mereological sums, these parts (i.e., the material objects and the relation) are not to be understood as being parts in the same respect. While the material objects are immediate material parts of the rigid embodiment, *R* is understood as a formal part. *R* qualifies material objects o_1, o_2, …, and o_n, linking them together as a new whole. So, for example, our cheese sandwich is then taken to be a composite object with just the two slices of bread and piece of cheese as its immediate material parts, and the betweenness relation that links the bread slices and cheese is the sandwich's formal part.

Now, the theory of rigid embodiment is intended to only accommodate objects that do not vary in their constitutions over time. Notice that things like sandwiches, bouquets of flowers, and two-piece bathing suits are material objects that usually do not change their material parts over time. This first part of the theory of embodiment, then, is not equipped to serve our purposes, since OSGs usually have different members at different times. So, let's now turn to the theory of variable embodiment, which is intended to accommodate objects that vary in their constitutions.

1.2.2 Variable embodiment

Under the theory of variable embodiment, given a function *F* from times to things, there is an object *a* that corresponds to *F* such that *a* exists when and only when *F* is defined.

Further, *a* is composed at any time *t* by *F*(*t*). Fine refers to such an object as a 'variable embodiment'; and, more specifically, he refers to the variable embodiment *a* that corresponds to function *F* as 'the variable embodiment of *F*' or '*/F/*'. Material objects with varying constitutions – objects like automobiles, bass guitars, and ships – are, by Fine's lights, variable embodiments.

Consider, for example, an automobile. At each time *t* at which the automobile exists, it is composed of various material objects (e.g., a frame, an engine, and tires) that are suitably arranged according to the characteristic functional relations of an automobile, which we will refer to as 'A'. Yet, over the span of its existence, the very same automobile may undergo various repairs or alterations. Accordingly, some of the automobile's material parts at some time t_2 may not be the same material objects that once served as its material parts at earlier time t_1. That is, at later time t_2, the automobile may be composed of material objects that are distinct from those from which it was composed at t_1, provided they are appropriately arranged according to A. To account for this, Fine takes the automobile to be an object that corresponds to some function *F* that, given a time *t*, either picks out a certain rigid embodiment of the automobile's immediate material parts at *t* linked under A (i.e., rigid embodiment $o_1, o_2, \ldots, o_n$/A) or nothing at all.

So, variable embodiments are composite objects whose constitutions are bound by the functions to which they correspond. The automobile, for instance, has its component and formal parts at any given time at which it exists determined by the function, *F*, to which it corresponds. Accordingly, such things may have different material objects or relations as their parts at different times.

The theory of variable embodiment, as far as I can see, may be readily utilized for our purposes. Throughout the rest of this paper, I follow the theory of embodiment and sketch out an account of OSGs as composite wholes that may vary in their constitutions.

§2 The function correspondence account

Provided that the relationship between an OSG and its members is relevantly analogous to the relationship between a material object of varying constitution and its material parts, I think that an account of OSGs that takes them as being composed (at least, partially) of their members will yield desirable results. Roughly, then, I suggest that an OSG is a variable embodiment, or at least something like what Fine has characterized as a variable embodiment. More specifically, I suggest that it is a kind of composite whole that corresponds to a function that somehow picks out social beings, and it (i.e., the OSG) is composed (at least, partially) of those social beings at any such time they are picked out.[35] Let's call this account of OSGs 'the function correspondence account'.

Let's now take some space to flesh out this account of OSGs in some detail. The first two parts of this section are dedicated to describing the function to which an OSG corresponds. The first part is a discussion concerning what things this function selects. The second part, while not directly about the function itself, is intended to help clarify some points about this function. Here, I take some space to distinguish the account that I am proposing from an account previously proposed in the literature – namely, Katherine Ritchie's (2013, 2015) account of OSGs as realizations of structures. Finally, in the third part

[35] By 'social beings', I am referring to things like persons, bees, and wolves. I want the proposed account to accommodate OSGs whose members are non-human, like bee colonies. I do not see any reason to think that such things are not OSGs, and I think any adequate account should be able to accommodate such things.

of this section I sketch out the function correspondence account by laying out some of its postulates.

2.1 The function to which an OSG correspond

What things might the function to which an OSG corresponds pick out? Surely, any function to which an OSG corresponds must be one that somehow picks out social beings. However, a straightforward function from times to sets of social beings will not do the trick. The problem, here, is that any such account would not be able to distinguish distinct yet completely coincident OSGs.[36] Consider, for example, the following fictional scenario.

Multitalented musicians. Bear, Ponyo, Cato, and Gattsu started playing music together because they share a wide range of musical interests and are capable of playing various instruments. They now refuse to play music with anyone else. Each time they gather, they play many different styles of music. However, they usually start each gathering with their favorite Beatles songs and end by experimenting with original hip-hop beats. Now, after many sessions of covering the Beatles and playing original hip-hop songs, they have decided to start gigging at nearby venues that want either a Beatles cover-band or an original hip-hop group. As a Beatles cover-band, they will each dress up as Ringo Starr and play as 'The One and Only Billy Shears'; as a hip-hop group, they will perform under the name 'Ossified Giants'. Furthermore, they have agreed to disband both bands if any member leaves either group.

Intuitively, The One and Only Billy Shears is not the same OSG as Ossified Giants. The former's primary function is to cover Beatles songs while the latter's is to play original

[36] For more examples and further discussion of coincident OSGs, see Ritchie 2013, Epstein 2017, and Wilhelm's forthcoming.

hip-hop songs. Nevertheless, these distinct OSGs are completely coincident. They were created at the same time and have all and only the same members. Moreover, since Bear, Ponyo, Cato, and Gattsu refuse to play with anyone else, at no point in either band's career will there be an increase in membership. There will also be no point where either one band has fewer members than the other or one exists while the other does not. The conditions to which Bear, Ponyo, Cato, and Gattsu have agreed – that is, to disband both bands if any member leaves either group – has made it such that retainment of membership in both OSGs is required for either band's survival. So, if OSGs are taken as wholes that simply correspond to a function from times to sets of social beings, coincident OSGs like The One and Only Billy Shears and Ossified Giants will mistakenly be taken as identical.

To distinguish completely coincident groups like The One and Only Billy Shears and Ossified Giants, we need a function that picks out more than just sets of social beings. We need one that also somehow picks out the relevant functional relations in which those social beings or a subset of them stand. The One and Only Billy Shears and Ossified Giants may both have all and only the same members throughout their careers, but the relevant functional relations in which Bear, Ponyo, Cato, and Gattsu stand differ depending on which group is performing. For example, when Ossified Giants performs, some of its members must deejay while others rap, such that those who deejay stand in the 'provides beats for' relation with those who rap. Of course, The One and Only Billy Shears, on the other hand, does not require any of its members to occupy the 'deejay' position or the 'rapper' position. Accordingly, no member of The One and Only Billy Shears will stand in the 'provides beats for' relation when that band performs. These OSGs, then, may be distinguished by the relevant functional relations in which their members stand. So, the function to which an OSG

corresponds must be one that not only somehow picks out social beings, but also certain functional relations in which those social beings stand.

I suggest, then, that an OSG is a kind of composite whole that corresponds to a function that picks out certain rigid embodiments of social beings m_1, m_2, …, and m_n linked under certain networks of functional relations N (i.e., m_1, m_2, …, m_n/N). For example, consider some time t at which both Ossified Giants and The One and Only Billy Shears exist. According to this suggestion, the function to which Ossified Giants corresponds, given t, picks out a certain rigid embodiment whose material parts are the social beings Bear, Ponyo, Cato, and Gattsu and formal part is a certain network of relations in which they stand, one of which is the 'provides beats for' relation. And while the function to which The One and Only Billy Shears corresponds, given t, also picks out a rigid embodiment whose material parts are Bear, Ponyo, Cato, and Gattsu, the formal part of this rigid embodiment will not include the 'provides beats for' relation. So, under this suggestion, Ossified Giants is not the same OSG as The One and Only Billy Shears, since there is some time at which the functions to which they correspond pick out distinct rigid embodiments.

2.2 Ritchie's structures account of OSGs

In a way, what I am suggesting here is that the function to which an OSG corresponds is one that picks out certain rigid embodiments of social beings unified by a certain structure according to which they are organized. This suggestion may seem similar to one previously proposed in the literature – namely, Ritchie's structures account of OSGs. Indeed, Uzquiano (2018) has even described OSGs under the structures account as kinds of variable embodiments. Allow me, then, to take some space to distinguish what I am suggesting from

Ritchie's structures account. Comparing the two, I hope, will help clarify the function to which I am suggesting OSGs correspond.

In recent literature, Ritchie (2013, 2015) has proposed that OSGs are realizations of structures, where a structure is a network of functional relations that make available positions to be occupied by things.[37] Such networks may be represented by graphs of nodes and edges. The nodes would represent the positions that may be occupied by things; the edges would represent the various functional relations that must be satisfied in order to occupy those positions. An OSG, according to Ritchie, exists when and only when all of the positions made available by a certain structure are occupied. Another way we may put this, since a position's occupation requires the satisfaction of certain functional relations, is that an OSG exists when and only when all of the functional relations of a certain structure are satisfied. When all of the positions of a structure are occupied (or, in other words, all of its functional relations are satisfied), we may say that the things occupying the positions "jointly realize" that structure. In this way, an OSG is taken under the structures account to be the realization of a structure.

According to the account that Ritchie proposes, an OSG exists only when its structure is realized, which occurs just in case all of the positions (functional relations) are occupied (satisfied). Moreover, an OSG persists only if the realization of its structure persists. As Ritchie points out, "the persistence of [an OSG with structure S] requires the continuity of the realization of S" (Ritchie 2013, p 14). That is, its persistence does not require that the same things occupy the positions of the OSG's structure from one moment to the next. Rather, it only requires that all of the positions remain occupied (or, alternatively, that all of

[37] Ritchie (2013, 2015) calls OSGs 'Type 1 groups'.

the functional relations remain satisfied). This allows the structuralist to accommodate change in group membership over time, where something is a member of an OSG just in case it occupies a position of the OSG's realized structure.

Ritchie's structures account, then, takes OSGs to be wholes that are made up of things – namely, the position occupiers – which may vary over time. This, notice, is not so far off from the view that I am proposing. Indeed, we may even be inclined to take a realization of a structure to be a kind of whole that corresponds to a function in a way similar to that described by the theory of embodiment, in which case the similarity between these accounts may seem all the more striking. For example, consider a particular realization of some structure S, which I will refer to as 'G'. G exists only when all of the positions made available by S are occupied, and so all of the relations constitutive of S must be satisfied by those occupants. We can capture this condition by taking G to be a whole that exists only when certain objects o_1, o_2, …, and o_n stand in the relations constitutive of structure S. Accordingly, it seems we may then take G to be a whole that corresponds to a particular function F that, given a time *t*, either picks out a certain rigid embodiment o_1, o_2, …, o_n/S or nothing at all. We can even capture the structuralist's persistence condition of G – that G persists only if S continues to be realized. To do this, let G be a variable embodiment that exists without any temporal gaps. The function, F, to which G corresponds, then, will be a "quasi-continuous function," where a quasi-continuous function is a function with no temporal gaps. In other words, if F selects things given times t_1 and t_2, given any time t_3 between t_1 and t_2, F must select something.

So, it seems that we may think of a realization of a structure as a kind of temporally gapless variable embodiment. Accordingly, we may then be inclined to take an OSG under

Ritchie's structures account as such a kind of variable embodiment. What, then, is the salient difference between the account that Ritchie has put forth and the account that I am proposing? To see the difference, consider the following fictional scenario.

The Santa Barbara Bouldering Club. In August 2010, Bear, Ponyo, and Gattsu founded the Santa Barbara Bouldering Club (SBBC). Every Saturday morning, SBBC met at Lizard's Mouth, the local climbing area. Once there, the club decided which problems to work on, how long to work on them, and what restaurant to meet at for lunch. It was Bear's job to decide the problems to work on, Ponyo's job to decide how long to work on them, and Gattsu's job to pick the lunch spot. Unfortunately, the club disbanded in October 2011 due incompatible work schedules amongst the members. Bear, Ponyo, and Gattsu could not find a time where all three of them were free, and it was not clear to them that there would be any such time in the foreseeable future. However, in June 2012, they were each let go from their demanding jobs. SBBC promptly started up again, resuming its Saturday morning meetings at Lizard's Mouth. Over the years, SBBC has recruited many members. In fact, so many have joined that the original jobs held by Bear, Ponyo, and Gattsu have become obsolete. Bear is now the president of the club, Gattsu is its treasurer, and Ponyo is the official SBBC record keeper. Other club-jobs, such as the SBBC website manager, are held by other club members.

Some details may need to be filled in, but I think that there is nothing intuitively problematic about an OSG like SBBC. That it starts out with just a few members, ceases to exist for some period of time, and then comes back into existence is nothing to balk at. This kind of gappy existence commonly occurs amongst OSGs like musical groups. For instance, A Tribe Called Quest officially broke up in 1998 but reunited in 2006; The Police disbanded in 1986 but got back together for a one-year tour in 2007; and The Cars reunited in 2010 to

record a new album after having been split up for over twenty years. There is also nothing far-fetched about SBBC surviving changes in the club-jobs had by its members. If an OSG can survive large increases or decreases in membership, then surely it can also survive changes in the functional relations in which its members must stand. After all, some jobs that are collectively sufficient for furthering the ends of a small OSG may not be sufficient for furthering the ends of a large, complex OSG. For example, a small OSG that does not collect funds from its members may not require that anyone stand in the 'collect money from' relation with any members. Yet, if that OSG gains many members, it may change the manner in which it operates and start charging membership-fees. If so, then it may add a new job or duty to be had by at least one of its members, one that requires her to stand in the 'collect money from' relation with members. Now, surely it is not the case that a new OSG is created upon the addition of any such new job. So, just as OSGs may change by increasing or decreasing in membership, they may also change with respect to the functional relations in which their members must stand.

As far as I can see, then, the case of SBBC is perfectly possible. Any adequate account of OSGs must be able to accommodate it. But Ritchie's account of OSGs – that an OSG just is the realization of some structure – cannot do this. Specifically, Ritchie's account cannot accommodate any OSG that either has a gappy existence or undergoes changes in the required functional relations amongst its members. Let's consider each case in turn.

Let's start by considering whether, under the structures account, there may be OSGs that have gappy existences. Suppose there is one, which we will call 'J'. Now, if an OSG has a gappy existence, it ceases to exist at some moment and then comes back into existence at some later moment. J, then, ceases to exist at some moment t_1 and then comes back into

existence at some later moment t_2. However, under the structures account, J just is the realization of some structure S. So, if J ceases to exist at moment t_1 and then comes back into existence at later moment t_2, then the realization of S (let's call this 'R') with which the structuralist identifies J before t_1 must be the same realization as that with which the structuralist identifies J at t_2 (let's call this 'L'). But R is not the same realization as L. If a realization of some structure ceases to exist, then any realization of a structure that exists at a later time, regardless of whether it is the same structure and the same objects jointly realizing it, is a distinct realization.[38] Consequently, since R ceases to exist at t_1, L must be a distinct realization, for it (i.e., L) exists at a later time. Under the assumption that there is an OSG, J, that has a gappy existence, we have then reached an absurdity: there is a realization of a structure, R, that is and is not the same realization as L. So, under the structures account, there must be no such OSG that has a gappy existence.

Moving on, let's now consider whether, under the structures account, there may be OSGs that undergo changes in the functional relations their members must stand in. Suppose there is such an OSG; let's call it 'H'. If H undergoes a change in the functional relations its members must stand in, then either (i) there is some moment t_1 at which H's structure S is constituted by a set of relations N and some later moment t_2 where S is constituted by a different set of relations M or (ii) there is some moment t_1 where H has some structure S but at a later moment t_2 it no longer has that structure. Recall, however, that a structure just is a network of relations that make available positions to be occupied by things. In other words,

[38] I am assuming that the following principle is true: realization A at t_1 is the same realization as realization B at later time t_2 only if there is existential continuity from A to B. Cases of gappy OSGs simply fail to meet this condition. One may be inclined to reject this condition. However, if one does reject it, it is not at all clear when some realization A at a time t_1 is the same as an arbitrary realization B at some other time t_2.

structures are individuated by their constitutive relations. It cannot be the case, then, that S is constituted by some set of relations at one time and by a different set of relations at another. This rules out case (i). What about case (ii)? Unfortunately, case (ii) in not compatible with the structures account. If, as the structuralist maintain, an OSG just is the realization of a structure whose persistence requires the continuity of the realization of that structure, then H cannot have structure S at t_1 and fail to have S at later moment t_2. At t_1, H just is the realization of S by the structuralist's lights, and so H persists from t_1 to t_2 only if S continues to be realized. So, the structuralist cannot accept case (ii). Under the structures account, then, there must be no such OSG like H that survives a change in the functional relations its members must stand in.

Ritchie's structures account cannot accommodate OSGs like SBBC, since SBBC has a gappy existence and persists through changes in the functional relations its members must stand in. Accordingly, the corresponding temporally gapless variable embodiment view also cannot accommodate such OSGs. Here, then, is the salient difference between Ritchie's account and the one that I am suggesting: the account that I am suggesting – that is, the function correspondence account – can accommodate OSGs like SBBC. On the function correspondence account, there is no such restriction on the function to which an OSG corresponds that requires either that it be a quasi-continuous function or that the rigid embodiments selected have the same formal parts. To equate the account that I am proposing with Ritchie's structures account, I take it, is to overlook these details about the function to which I am suggesting an OSG corresponds.

To be clear, then, allow me to briefly summarize the description of the function to which I am suggesting an OSG corresponds. The function to which an OSG corresponds is

one that, given a time, either picks out a rigid embodiment of social beings linked by a certain network of functional relations or nothing at all. The social beings constitutive of the rigid embodiments picked out, of course, need not be the same from one rigid embodiment to the next; and, as just pointed out, the networks of relations serving as the formal parts of those rigid embodiments also do not need to be the same from one to the next. So, for example, given some time t_1, such a function may pick out some rigid embodiment of social beings m_1, m_2, and m_3 under structure S (i.e., m_1, m_2, m_3/S), yet given some other time t_2 it may pick out some rigid embodiment of distinct social beings m_4, m_5, and m_6 under some other structure T (i.e., m_4, m_5, m_6/T). If the function picks something out given a time *t*, then its corresponding OSG exists at *t*; otherwise, its corresponding OSG does not exist at that time. Moreover, unlike the temporally gapless variable embodiment view (i.e., the view that corresponds to the structures account), this function need not be quasi-continuous. Given times t_1, t_2, and t_3, where t_2 is some moment that occurs after t_1 but before t_3, this function may pick things out given times t_1 and t_3 yet fail to pick something out given t_2. In any such case, the OSG has a gappy existence.

2.3 The function correspondence account of OSGs

Before providing a sketch of the function correspondence account of OSGs, I want to make one final, minor adjustment to the function that I am suggesting an OSG corresponds. One commonly held intuition about OSGs that was briefly mentioned above, recall, is that they may have different members across possible worlds. As stated earlier, it seems intuitively clear that, say, the White Sox might have other members than it does in actuality. The function correspondence account, however, is not equipped to accommodate this intuition at the moment. As it has been described up until now, the suggested function to

which an OSG corresponds does not take into account possible worlds. So, let's adjust it accordingly. Instead of letting it be a function that takes one argument (i.e., times), let it be a function that takes two: a possible world and a time in that world. The function to which an OSG corresponds, then, is a function that, given a possible world *w* and time *t* in that world, picks out either a rigid embodiment of social beings linked by a certain network of relations or nothing at all. By taking possible worlds and times in those worlds as arguments, we may then say that an OSG might have different members than it actually does at some time *t* just in case the function to which it corresponds picks out a rigid embodiment of different social beings given *t* and some possible, non-actual world *w*.

Having made our final adjustment to the suggested function to which an OSG corresponds, let's now sketch out the function correspondence account of OSGs. Where an OSG G corresponds to function *F*, I will follow Fine and call that which is selected by *F* given a world *w* and time *t* ⌜ the manifestation of G at *t* in *w* ⌝. By following the theory of variable embodiment, we have readily available postulates for this account.[39] The postulates of existence and location are as follows:

> *Existence*. G exists at time *t* in world *w* if and only if it has a manifestation at *t* in *w*.
>
> *Location*. If G exists at time *t* in world *w*, then its location is that of its manifestation at *t* in *w*.

Notice that, given *Existence* and *Location*, the function correspondence account already accommodates three widely held intuitions about OSGs – namely, that OSGs are not eternal, that they are not necessary, and that they are (or, at least, they may be) located in spacetime. That the first two widely held intuitions are captured by *Existence*, I take it, is clear enough.

[39] See Fine 1999, p 70.

The third intuition is captured by *Location* provided that G's manifestations occupy spacetime. Since *F* picks out things that are spatiotemporally located (i.e., rigid embodiments whose material parts are social beings), this condition is satisfied.

The identity postulate is the following:

Identity. G at *t* in *w* is identical to an arbitrary OSG H at *t'* in *w'* if and only if the function to which H corresponds is identical to *F*.

In other words, G is identical to H just in case the function to which H corresponds, given any world *w* and time *t*, picks out the same thing as *F* does given *w* and *t*. *Identity* allows the function correspondence account to accommodate the following widely held intuition that was briefly discussed in Section 1.1.3: for the existence of OSGs, arrangement/organization matters. By making the sameness of their corresponding functions criterial for the identity of OSGs, the function correspondence account takes the structural organization of OSGs as a significant component to their identity. Accordingly, this account can also accommodate the existence of distinct yet coextensive OSGs. As we have already seen, Ossified Giants and The One and Only Billy Shears will rightly be taken as distinct OSGs, since there is at least one time in a possible world according to which their corresponding functions pick out different rigid embodiments.

Now, since I am suggesting that OSGs are composite wholes of varying constitution, we need postulates for the relationship between an OSG and its constituent parts. Again, these are readily available from the theory of variable embodiment. Adapted for the function correspondence account, the relationship between an OSG and its manifestation at some time *t* in a world *w* is characterized by the following:

Manifestation-to-OSG. Any manifestation of G at a given time *t* and world *w* is a part of G at *t* in *w.*

In other words, that which is picked out by *F* given *w* and *t* is itself a part of G at that time and world.

The relationship between an OSG and the parts of its manifestations at various worlds and times is characterized by the following standard transitivity of parthood postulate:

Transitivity. If *a* is a part of *b* at some time *t* in a world *w* and *b* is a part of *c* at *t* in *w*, then *a* is a part of *c* at *t* in *w.*[40]

By *Transitivity*, any part (material or formal) of a manifestation of G at *t* in *w* is itself a (material or formal) part of G at *t* in *w.* The social beings and network of functional relations constitutive of the rigid embodiment picked out by *F* given *w* and *t*, then, are parts (material and formal, respectively) of G at *t* in *w.* Likewise, any part of those things at *t* in *w* (e.g., one of the social being's left index finger) is itself a (material or formal) part of G at *t* in *w.* Since we want members and relations to be parts (material and formal, respectively) of G only at certain times and worlds where G exists, this, I take it, is a desired result.[41]

Notice that an OSG will, under the proposed account, have many material and formal parts at a time and world that are not its members at that time and world. While this is perhaps surprising, I do not think it is in any way unacceptable. As Hawley (2017) has

[40] *Transitivity* is a simplification of Fine's two postulates V5a and V5b, which are concerned with the transitivity of timeless and temporary parts to their wholes. I am not concerned with this distinction between timeless and temporary parts, and so I am fine with a standard transitivity of parthood postulate here.

[41] While I take it that, for many mereologists, relations serving as formal parts of material things is not uncommon, others might take this result to be undesirable. That is, one might think that relations, in no sense of the word 'part', are parts of material things like OSGs. Given the scope and purpose of this paper, I must table this issue for another discussion.

previously pointed out, contrary to Uzquiano's (2004) claims, it is not at all obvious that, say, Justice Breyer's arm is not a part of the Supreme Court.[42] If asked how many arms are part of the Supreme Court, surely the most plausible answer is 'eighteen', not 'none' (Hawley 2017, p 400). That we can make sense of this question should tell us, at the very least, that it is certainly not obvious that things like arms and noses are not parts of OSGs.

Now, since the parthood relation is transitive, the group membership relation must not be tantamount to it. Otherwise, we would get the undesirable result of things like noses, index fingers, and relations being group members of OSGs.[43] So, let's characterize the group membership relation under the function correspondence account. I suggest the following:

> *Membership*. An individual *a* is a member of G at some time *t* in a world *w* if and only if *a* is an immediate material part of the manifestation of G at *t* in *w*.

Alternatively, if we want to characterize group membership in structuralist terms, we may. As far as I can see, we can follow Ritchie (2013, 2015) here: an individual *a* is a member of an OSG *G* with structure *S* at *t* in *w* just in case *a* occupies a position of *S* at *t* in *w*. Of course, we must keep in mind that under the function correspondence account the structure of an OSG may shift from one moment to the next. That is, we must keep in mind that whatever *G*'s structure is at *t* in *w* will be determined by the rigid embodiment selected by the function to which *G* corresponds given *w* and *t*.

With *Membership*, the function correspondence account meets two more widely held intuitions concerning OSGs. These intuitions, both of which were briefly discussed in

[42] In his 2004, Uzquiano claims the following: "it is plain that Justice Breyer's arm is neither a part nor a member of the Supreme Court" (137).

[43] That things like noses and fingers are parts of social groups has, in one way or another, been levied against mereological views of social groups by philosophers such as Ruben (1983), Schmitt (2003), Uzquiano (2004), and Epstein (2015). For a thorough discussion of this issue, see Hawley 2017.

Sections 1.1.1 and 1.1.2, are that OSGs may change members over time and that they may have different members across possible worlds, respectively. We may say, for example, that SBBC (in world *w*) changes members from moment t_1 to distinct moment t_2 just in case (i) SBBC exists at both moments in *w* and (ii) the set of immediate material parts of the rigid embodiment picked out by SBBC's corresponding function when given *w* and t_1 differs from that of the rigid embodiment picked out by this function when given *w* and t_2. Similarly, we may say that SBBC might have had different members than it actually does at some time *t* just in case (i) there is some possible, non-actual world *w* such that SBBC exists at *t* in *w* and (ii) the set of immediate material parts of the rigid embodiment selected by SBBC's corresponding function when given *w* and *t* differs from that of the rigid embodiment selected when this function is given the actual world and *t*.

Given the above postulates, we can secure desired results concerning OSGs. For example, under the function correspondence account, SBBC is taken to be a composite whole that corresponds to a function *F* that, given a world *w* and time *t*, selects either some rigid embodiment of social beings under a network of functional relations or nothing at all. Since *F* may select rigid embodiments linked under different networks of relations at different times, SBBC will exist even when its structure shifts. By *Existence* and *Location*, it exists contingently and non-eternally when and where we would expect it to in spacetime. Given *Identity*, SBBC is not only distinct from the mere collection of its members at any given time and world, but also from any spatiotemporally coincident OSG that corresponds to a different function. And, finally, from the postulates that govern the relationship between an OSG and its parts (i.e., *Manifestation-to-OSG* and *Transitivity*), SBBC has certain social beings, their parts, parts of those parts, and certain relations as either material or formal parts at various

times and worlds. However, given *Membership*, only the social beings are SBBC group members.

§3 Conclusion

Like material objects, there is a great variety of OSGs, many of which can intuitively survive various changes throughout their existences that others cannot. Major League Baseball teams, families, and music duos are just a few examples of types of OSGs that seem to have different persistence conditions. An adequate metaphysical account of organized social groups must somehow accommodate the various ways that such things can (or cannot) change. Throughout this paper, I have suggested that we may be able to do this if we take OSGs as composite wholes that may vary in their constitutions. Further, I have sketched an account of OSGs as composite wholes according to Fine's theory of variable embodiment. On this account, an OSG is a whole that corresponds to a certain kind of function that, given a possible world and time in that world, selects either a rigid embodiment of social beings linked under a network of functional relations or nothing at all. I have named this account 'the function correspondence account'.

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III. Memberless organized social groups

§0 Introduction

In "What is an organized social group?" I proposed the function correspondence account of organized social groups (e.g., rock bands, baseball teams, and families). On this account, organized social groups (OSGs) are composite wholes that may vary in their compositions over time. One consequence of the function correspondence account is that its truth entails that of the following principle, *the member requirement*: an OSG exists only if it has members. The aim of this paper is twofold. First, I aim to defend *the member requirement* (and, in doing so, defend the function correspondence account) against cases that seem to suggest its falsity; second, I aim to show that we have good reason to accept *the member requirement*.

I will proceed in four main sections. In Section 1, I will briefly lay out the function correspondence account with the aim of showing that it is committed to *the member requirement*. Then, in Section 2, I will discuss why one might maintain that *the member requirement* is false. There are a number of intuitively possible cases where an OSG seems to persist despite having no members. I will present and discuss one such case. In Section 3, I will show that these kinds of cases are not genuine counterexamples to *the member requirement*. My goal in this section is to show that the function correspondence account is in fact perfectly compatible with such cases, and that the manner by which it may accommodate them is independently motivated. Finally, in Section 4, I will argue that we have good reason to accept *the member requirement,* that it is not the case that OSGs may exist memberlessly. The problem that I will point out is that the acceptance of memberless OSGs comes at a steep price, one that we need not pay if I am successful at showing what I aim to show in the

previous section. In particular, I will argue that the acceptance of memberless OSGs comes at the cost of effectively preventing them from being the kinds of things that may interact with the material world.

§1 The function correspondence account

On the function correspondence account, an OSG is a composite whole that may vary in its composition over time. The view is based on Fine's (1999) theory of material objects. In this section, I will briefly present the function correspondence account of OSGs with the aim of showing that it entails *the member requirement*.[44]

According to the function correspondence account, an OSG is an entity with a metaphysical intension, a function that, given a world and time in that world, selects either (if the OSG exists) an object or (if it does not exist) nothing at all. The object picked out, which is the manifestation of the OSG at that world and time, is what Fine (1999) calls a 'rigid embodiment'. A rigid embodiment, according to Fine, is an object that exists when and only when certain objects o_1, o_2, o_3, …, and o_n stand in a qualifying relation or set of relations *R*. Familiar examples of rigid embodiments are things like bouquets of flowers and molecules of table salt. A particular bouquet of flowers exists when and only when some individual flowers f_1, f_2, f_3, …, and f_n stand in the 'bunched' relation; likewise, a particular molecule of table salt exists when and only when certain ions i_1 and i_2 stand in the 'ionically bonded' relation. Under the function correspondence account, the manifestation of an OSG is a special kind of rigid embodiment. It is one that exists at a time and world if and only if certain social beings stand in a qualifying network of functional relations at that time and

[44] For a more detailed description of the function correspondence account, see my paper "What is an organized social group?" (unpublished).

world. The qualifying network of functional relations is the structure of the OSG at that time and world; the social beings, by standing in that qualifying network of functional relations, are the members of the OSG at that time and world.

So, under the function correspondence account, when an OSG exists at a time in a world, it has a manifestation at that world and time. Moreover, the existence of any such manifestation at a time and world requires that certain social beings stand in a salient network of functional relations at that time and world, and, by standing in that network of relations at that time and world, those social beings are thereby the OSG's members at that time and world. The following intuitively plausible principle, then, is entailed by the function correspondence account:

> *The member requirement*. An OSG G exists at some time *t* in world *w* only if G has members at *t* in *w*.[45]

If the function correspondence account is correct, then, *the member requirement* must be true.[46]

Let's look at an example. A film club called 'The Reel Club', let's suppose, exists at some time t in world w. According to the function correspondence account, The Reel Club is a composite whole with a metaphysical intension, some function *F* that picks out the club's manifestation at a given time and world just in case the club exists at that time and world. *F*, then, is defined when and only when the club exists. So, on the assumption that the club exists at time t in world w, *F* selects something given t and w. Specifically, it selects a certain

[45] This principle may also follow from the plausible, though disputable, assumption that a composite object exists only if it has at least one component.

[46] To be clear, the function correspondence account is certainly not the only account of OSGs that entails *the member requirement*. See, for example, Hawley 2017, Ritchie 2018, Ritchie 2013, and Effingham 2010.

kind of rigid embodiment, one that exists when and only when certain social beings stand in some qualifying network of functional relations. The network of functional relations in which the social beings stand is the structure of The Reel Club at t in w; the social beings standing in those relations are the group members of The Reel Club at t in w. So, on the assumption that The Reel Club exists at t in w, it must also have members at t in w.

§2 Memberless OSGs

Let's now turn to intuitively possible cases that seem to suggest that OSGs may exist despite having no members. In this section, I will start by presenting a fictional case, one that I take to be a representative example of intuitively possible cases that seem to involve memberless OSGs. I will then discuss why it seems that such a case is one where an OSG exists memberlessly and, as a result, seems to be a counterexample to *the member requirement*.

Graduating Team. Every year, the University of Delaware women's tennis team's season starts in the fall and ends in the spring. After the season ends, the team takes a well-deserved break over the summer and then reconvenes in the fall with try-outs for new teammates. Normally, the team has a fairly even distribution of freshmen, sophomores, juniors, and seniors such that only a few players graduate and leave the team in May. This, however, has not always been the case. In the spring of 2018, every member of the University of Delaware women's tennis team happened to be a graduating senior; and so, in May 2018, every member of the team at that time graduated and left the team. In the fall of

2018, each member of the University of Delaware women's tennis team was new to the team.[47]

While perhaps unlikely to occur, there does not seem to be anything impossible about *Graduating Team*. For example, it is perfectly common for an OSG to lose members over time. In this case, the University of Delaware women's tennis team just so happens to lose all of its members at once. It is also common for an OSG to gain new members over time. In this case, it just so happens that the new members gained by the University of Delaware women's tennis team in the fall of 2018 are also its only members at that time.

Now, given that the team in the spring of 2018 is the same OSG as the team in the fall of 2018, it seems that the University of Delaware women's tennis team must persist over the summer of 2018 even though it has no members. After all, the team's positions (e.g., 1st Singles, 2nd Singles, and 1st Doubles) are still available to be occupied over the summer. It just so happens that they do not get filled until the fall. For instance, the '1st Singles' position that gets occupied in the fall is the very same '1st Singles' position that was previously occupied in the spring. But, given that there are no team members over the summer, it simply goes on unoccupied until the fall. It seems, then, that the team continues to exist over the summer of 2018, in which case the University of Delaware women's tennis team is an example of an OSG that may exist memberlessly.

[47] Epstein (2015) and Costigan (unpublished) appeal to a relevantly similar case, one in which all of the justices of the US Supreme Court step down before any one of them is replaced. For a case more similar to *Graduating Team*, see Quinton 1976, p 15.

So, G*raduating Team* is an example of a possible case that seems to involve an OSG that may exist memberlessly.[48] Notice, however, that *Graduating Team* involves a memberless OSG only if *the member requirement* is false. After all, if a tennis team may exist over some period of time despite having no members throughout that period of time, then it is false that OSGs exist only if they have members. Consequently, it seems that cases like *Graduating Team* are counterexamples to *the member requirement* (and, by extension, the function correspondence account). The possibility of memberless OSGs is incompatible with this principle.

§3 *Graduating Team* and *the member requirement* are compatible

In this section, I will argue that cases like *Graduating Team* are not genuine counterexamples to *the member requirement*. To do this, I will show that the function correspondence account, which entails *the member requirement,* is perfectly capable of accommodating such cases. I will then discuss whether the manner by which the function correspondence account may accommodate cases like *Graduating Team* is in some way ad hoc. I suggest that it is not.

The member requirement and cases like *Graduating Team* are perfectly compatible; we may consistently accept both. Here is one way to do this: take OSGs like that involved in *Graduating Team* as things that may have interrupted existences.[49] That is, for times t_1, t_2, and t_3, where t_2 is some moment between t_1 and t_3, take such OSGs as things that may exist at times t_1 and t_3 yet fail to exist at t_2. Under the function correspondence account, such an OSG

[48] For examples where cases like *Graduating Team* are taken as showing us that OSGs may exist memberlessly, see Wilhelm 2020, Epstein 2019, Epstein 2015, and Costigan unpublished. Cf. Quinton 1976, Copp 1984, and Hindriks 2013.

[49] The suggestion that OSGs like that involved in *Graduating Team* experience interrupted existences has been previously endorsed by others such as Quinton (1976) and Copp (1984).

would be one whose intension picks something out at t_1 and t_3 but not at t_2. Let's call such OSGs 'interrupted OSGs'. Rather than accept that the tennis team, in the case of *Graduating Team*, may exist memberlessly, proponents of the function correspondence account may instead maintain that it is an interrupted OSG – it simply does not exist over the summer of 2018. Accordingly, proponents of the function correspondence account may accept the possibility of such cases without thereby rejecting *the member requirement*. Cases like *Graduating Team* are not counterexamples to *the member requirement*.

Let's now turn to whether the manner by which a proponent of the function correspondence account may accommodate cases like *Graduating Team* is ad hoc. As far as I can see, it is not, since interrupted OSGs are nothing out of the ordinary. We have good reason to think that they exist outside of cases like those under consideration. Consider, for instance, musical groups like The Cars. In 1988, The Cars officially broke up, and its members went on to pursue various solo and side projects over the next twenty-two years. However, after the death of former band member Benjamin Orr in 2009, the band reunited, toured, and even released a seventh studio album. Intuitively, The Cars ceased to exist after disbanding in 1988 and then came back into existence sometime after the death of Orr in 2009. That is, The Cars is an OSG with an interrupted existence. And the details surrounding The Cars are not unique to The Cars. Numerous musical groups (e.g., A Tribe Called Quest, The Pixies, Guns N' Roses, and Sleater-Kinney) have undergone similar experiences. Accordingly, there appear to be many cases of interrupted OSGs outside of cases like that of *Graduating Team*.

One might try push back against these cases of interrupted OSGs. But to deny that, say, The Cars is not an actual example of an interrupted OSG, one would have to maintain one of the following:

(1) the band that broke up in 1988 is not identical to the band that released an album under the name 'The Cars' in 2011, or

(2) The Cars never actually ceased to exist in 1988.

I do not see why we should accept either (1) or (2).

Let's start by considering (2) – that The Cars never actually ceased to exist in 1988. This suggestion is deeply counterintuitive, since it entails that The Cars, contrary to popular belief, existed for the twenty-two years between its announced break-up and its "reunion." (Notice that, according to suggestion (2), there must not really have been a Cars reunion sometime after 2009, since the band never actually ceased to exist before then.) Of course, one could maintain that our intuitions are simply off in this case, but this suggestion runs the risk of rendering the conditions for when OSGs like The Cars go out of existence mysterious. Recall the events that unfolded soon after Orr and his bandmates announced that The Cars was breaking up: the band stopped making music, it stopped performing, and its members had no intention of reuniting the band (indeed, one member, songwriter Ric Ocasek, maintained that the band would never reunite and another, David Robinson, reportedly intended to retire from music altogether). In other words, soon after the announcement of its disbanding, The Cars ceased functioning as a musical group and its members had no intention of standing in the functional relations in which they once stood to collectively perform as The Cars. If there are any conditions that, when met, result in an OSG going out of existence, I would think that they are met here.

So, as far as I can see, it seems intuitively clear that The Cars went out of existence in 1988. What other condition might be required for the band to go out of existence? Here are three candidate conditions, any one of which a proponent of (2) might have in mind:

(3) all of its current members (or some sufficient number of them) must cease to exist,

(4) the band must not exist any time after its break-up, and

(5) the band's structure must cease to exist.

However, none of these is plausibly true.

That (3) and (4) are implausible, I think, is not particularly controversial. (3) is far too strict, let alone a necessary condition for the band to go out of existence; (4) is ad hoc, as the only reason to accept it is to deal with cases like those currently under consideration. If we need an example to show us that these conditions are implausible, we need only look to any one of the vast number of cases where an OSG intuitively no longer exists even though its former members are still alive. It is hard to believe, for example, that musical group The Smiths – which broke up in 1987 and has since never reunited – still exists, regardless of its former members currently being alive. Additionally, whether the band currently exists surely does not depend on whether it exists at some later moment. We certainly do not have to wait and see if The Smiths ever reunites in order to truly say of the band that it currently does not exist.

Let's move on to condition (5) – that, in order for the band to go out of existence, its structure must cease to exist. Recall that a structure is a network of relations in which things may stand. For example, things like molecules and English sentences have structure. A molecule of, say, table salt is composed of things (i.e., sodium and chloride ions) that are bound together in a certain way; a sentence in English, similarly, is a complex entity whose

constituents (i.e., English words) are bound by the relations in which they stand. In each case, we have complex entities whose constituents are unified by the relations in which they stand. The unifying relations of these complex entities form their structure. The certain way in which the molecule's constituents are bound, in virtue of which it is a molecule of table salt, is its structure; the various ways in which English words may be related, such that they compose a sentence in English, are the various structures that may be had by English sentences. Since a structure is a network of relations, (5) is then suggesting that certain relations must cease to exist in order for The Cars to go out of existence. That is, it is suggesting that the continued existence of those relations is sufficient for the continued existence of The Cars.[50]

I do not see why we should think that condition (5) is true. It certainly does not hold in cases of other complex entities. When we break down molecules of table salt into their constituent sodium and chloride ions by electrolysis, those molecules cease to exist even if the relations in which their constituent parts once stood continue to exist. Similarly, when we completely disassemble a television without destroying any of its parts, we do not take the television as continuing to exist, regardless of whether the network of relations that those parts once realized persists.[51]

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[50] Notice that, depending on how we think of relations, it may turn out that a theory that accepts suggestion (5) cannot say that OSGs ever go out of existence. If we think that relations are general entities that continue to exist even if there are no particular entities that stand in them, the functional relations constitutive of an OSG's structure may never cease to exist.

[51] I am assuming here that relations are general entities that do not cease to exist when some particular entities fail to stand in them. One might balk here if they take relations to be particular entities, perhaps tropes, that may cease to exist once the related entities are no longer related appropriately (see, for example, Maurin 2010 and Simons 2010). If so, then I do not see any reason to worry. If relations are particulars that cease to exist in entities that are not appropriately related, we should not think that the structure of The Cars continues to exist once the group disbands. Accordingly, suggestion (2) – that The Cars never really went out of existence in 1988 – would not be viable.

So, (2) – that The Cars never went out of existence in 1988 – is implausible, as it renders the conditions under which an OSG ceases to exist mysterious. Let's now consider (1) – that the band that broke up in 1988 is not identical to the band that released an album under the name 'The Cars' in 2011.

Notice that, similar to (2), (1) counterintuitively entails that there must not really have been a Cars reunion sometime after 2009, since the band that united (so-called "reunited") was not the same band as that which broke up in 1988. But why should we think that there was in fact no such reuniting – that the band never came back into existence after 1988? Not only are all of the members of the band in 2011 (barring, of course, Orr) the original members of the band that broke up in 1988, but those members stand in the very same functional relations they did when they were part of the band from 1988. Orr's duties were distributed between two of the band's surviving members, and even Ocasek, who wrote the songs of the band that broke up in 1988, wrote the songs of the band in 2011. The only substantive difference, as far as I can tell, is that Orr is a member of the band in 1988 but, of course, is not a member of the band in 2011. But this is certainly not sufficient to conclude that the band that broke up in 1988 is not the same band as that in 2011, since OSGs may gain or lose members over time. Indeed, had The Cars not disbanded in 1988 and, instead, continued playing music up to the moment of Orr's death in 2009, I take it that we would think that the band may survive if the other members continued to, say, perform Cars songs and release music under 'The Cars'. In other words, in the case where its surviving members continue to realize the salient structure that was realized when Orr was alive, I take it that we would think that the band survives the death of Orr.

As far as I can see, claim (1) must ultimately rely on the assumption that things like musical groups may not cease to exist and then come back into existence. Otherwise, the identity conditions of OSGs would be mysterious, since without any such assumption it is not at all clear why we would have distinct bands in the actual case of The Cars but not in the counterfactual one just presented.[52] Given that OSGs may gain or lose members over time, the only considerable difference between these cases, as far as I can see, is that the band in 1988 breaks up (and thereby goes out of existence) in the actual case but not in the counterfactual one. On pain of arbitrariness, a proponent of (1) must then implicitly already reject the existence of things like interrupted musical groups altogether. But this is precisely what is up for debate, and so claim (1) is question-begging. I do not see why we should then accept (1), especially in light of the vast number of musical groups (and other OSGs) that genuinely seem to have interrupted existences.

As far as I can tell, then, the manner by which a proponent of the function correspondence account may accommodate cases like *Graduating Team* (i.e., an appeal to interrupted OSGs) is not ad hoc. We have good reason to think that there are interrupted OSGs outside of cases like *Graduating Team*, The Cars being one such example. Accordingly, a proponent of the function correspondence account may consistently accept both *the member requirement* and cases like *Graduating Team* by taking the latter as cases involving interrupted OSGs, where their acceptance of interrupted OSGs is independently

[52] If one is still not convinced that the case of The Cars is one of an interrupted OSG, there are many other cases of bands that broke up and eventually reunited. As previously mentioned, Sleater-Kinney is one such example. Indeed, in the case of Sleater-Kinney, all and only the original band members took part in the band's reunion. Sleater-Kinney, perhaps, is an even stronger case for the existence of interrupted OSGs.

motivated. Cases like *Graduating Team* are not counterexamples to *the member requirement*, and so they do not present a problem for the function correspondence account of OSGs.

§4 The price of memberless OSGs

Up until now, I have argued that the following is false: cases like *Graduating team* are possible only if *the member requirement* is false. The possibility of cases like *Graduating Team* are not sufficient to show us that OSGs may exist memberlessly since they may instead involve interrupted OSGs, in which case they may be accommodated by the function correspondence account.

Nevertheless, given the possibility of cases like *Graduating Team*, some may find themselves pulled by intuition to accept that there might be memberless OSGs and thereby reject *the member requirement*. For the remainder of this paper, I will discuss why we should be wary of this intuition. I will argue that the acceptance of memberless OSGs comes at the steep, unnecessary cost of effectively undermining a theoretically important feature of OSGs – namely, that they are the kinds of things that may interact with the material world. Accordingly, I will conclude that we have good reason to accept *the member requirement* and reject the possibility of memberless OSGs.

I will proceed as follows. In Section 4.1, I will start by pointing out that OSGs may exist memberlessly only if they are immaterial things. I will then argue that if we take OSGs to be immaterial things, we give up on them being the kinds of things that may interact with the material world, a theoretically desirable feature commonly presupposed of OSGs. Accordingly, I will conclude that we have good reason to accept *the member requirement* over the possibility of memberless OSGs. Section 4.2 is dedicated to laying out a possible response to my claim that immaterial things cannot interact with material things. In Section

4.3, I will argue that this response is inadequate, as it does little to relieve the steep theoretical cost of accepting the possibility of memberless OSGs.

4.1 Memberless OSGs are immaterial things

To start, I want to point out that if OSGs may exist memberlessly, they must be immaterial things. To see why, consider various marks of materiality. Material things, for example, exist only if they are spatially and temporally located. Additionally, as van Inwagen (1990) notes, they are things that have surface and mass; they are made up of stuff. It is hard to see how an OSG may have any of these features while it exists memberlessly. Indeed, as far as I can tell, OSGs have these properties in virtue of their members having corresponding properties. A musical group, for example, may be (partially, at least) spatially located at some venue only if some of its members are located there; plausibly, it may have mass, but this may be true only if it has members that have mass. So, if an OSG exists without members, it may exist yet fail to have the various marks of materiality. OSGs must then not be material things if they may exist memberlessly, and so any theory that accepts memberless OSGs is committed to OSGs being immaterial things.[53]

Immaterial things (e.g., sets, fictional characters, numbers, and poems), however, are not the kinds of things that can causally impact or interact with the material world.[54] Accordingly, if OSGs are immaterial, they must not be of a kind that can causally impact or

[53] I am assuming here that an OSG may not be material sometimes and immaterial at other times. As far as I know, there is no plausible account or intuitive example of such a thing. If we take an OSG to be something that may exist at some time or other without any members, it is more plausible that we take them to be immaterial things that may have (in the sense of possession) material things as parts/members. Korman (2020), for example, argues for such an account concerning the natures of establishments.

[54] I take it that this claim – that the immaterial cannot interact with the material – is a fairly uncontroversial one. It is, for example, at the root of the longstanding interaction problem for Cartesian dualism. In Section 4.2, I briefly discuss how one might take an immaterial thing to interact with the material world.

interact with material things. But this is a very steep price to pay. An OSG's ability to interact with things in the material world is a theoretically desirable feature, one that is commonly assumed or even required of them.

Social groups (organized and non-organized) are commonly taken as playing a causal role in various historical events.[55] Mills (1998), for instance, maintains that "…colonialism, the slave trade, and segregation were developed and institutionalized through the concentrated and planned actions of whites" (p 90). According to Mills, certain actions that were collectively performed at the group level played a substantial role in shaping the Black experience. Similarly, Blum (2010) maintains that, due to the unfortunate acceptance of certain false beliefs, the behaviors and actions at both the individual and group levels significantly impacted others' experiences, what they could do, and how they were treated. Blum even concludes from the historical process of racialization that "racialized groups… are genuine social groups existing in the world" (Blum 2010, p 316).

Similar considerations naturally extend to OSGs, since they too seem to play a causal role that is central to our understanding of various, worldly events. When The Cars would play its hit single 'You Might Think' live, it would cause vibrations at various frequencies in certain patterns which were then perceived by their audience; when the Boston Red Sox "broke the curse" in 2004, the team's World Series victory caused such an emotional reaction in Bostonians that riots ensued throughout the city.

List and Pettit (2011) have even gone so far as to infer from this feature of OSGs (i.e., that they may interact with material things) that our acceptance of them as agents is

[55] See, for example, List and Pettit 2011, Blum 2010, Haslanger 2003, Sundstrom 2000, Mills 1998, and Piper 1996.

"…important for a proper understanding of the social world" (p 6).[56] According to them, the ascription of agency to social groups, especially those whose members collectively act to perform various functions (i.e., OSGs), is necessary in order to understand patterns of behavior that we commonly see in the social world. In particular, the various ways in which we interact with and are affected by certain OSGs can only be made sense of by assigning agency to those groups. Moreover, as far as they can see, any talk about such OSGs as agents cannot be adequately captured by talk about their members at the individual level alone. Our best theory of agency, according to List and Pettit, will then be one that can accommodate an OSG being something that may interact with the material world.

Countenancing the possibility of memberless OSGs, it turns out, is not as innocuous as we may have originally thought. If we accept such things as possible, we are committed to an immaterialist view of OSGs. Yet, if we take OSGs to be immaterial, we give up on them being things that may interact with the material world, a theoretically desirable feature that is commonly assumed of them. Consequently, countenancing the possibility of memberless OSGs requires that we give up on a substantial amount of literature that appeals to OSGs. In light of this, I think that we should ask ourselves whether such a price is one worth paying. As far as I can see, it is not. Not only do we lose out on the potential explanatory value of OSGs (with respect to, say, various historical events and social phenomena) if we pay it, but doing so is wholly unnecessary since we do not need memberless OSGs at all. The motivation for entertaining such things, recall, comes from difficult cases like *Graduating Team*. But, as I hope I have shown in the previous section, we can accommodate these cases

[56] Some (e.g., Ritchie 2015) have suggested that List and Pettit 2011 may even be seen as a kind of indispensability argument for social groups (organized and non-organized), similar to those commonly attributed to Quine (1976) and Putnam (1979a, 1979b) concerning mathematical entities.

without having to accept that some OSGs might exist memberlessly.[57] As far as I can see, then, we have good reason to reject the possibility of memberless OSGs and, instead, accept *the member requirement*.

4.2 A possible response: certain immaterial things may interact with the material world

I have just argued that memberless OSGs come at a steep price. Any theory that accepts such things as possible must be one according to which OSGs are immaterial, and so it will not comport with the following commonly assumed feature of OSGs: OSGs may interact with the material world. I want to now take some space to briefly discuss how, roughly, an immaterialist about OSGs might attempt to accommodate this feature.

In order to capture how OSGs may interact with the material world, immaterialists about OSGs might look to the literature on abstract artifacts for inspiration. Specifically, they might find the relation between an abstract artifact and its worldly, material appearance of particular interest.

Consider things like novels, songs, and recipes. These things are commonly taken to be abstracta.[58] Of course, however, there are physical copies of novels, we can hear songs by perceiving soundwaves, and recipes can be written down and preserved in a notebook. Such things, then, even if they are abstracta, seem to appear in the world in some material form or other. Now, while it would be a mistake to identify such abstracta with their material

[57] Indeed, on the function correspondence account, we may accommodate cases like *Graduating Team*, hold onto *the member requirement*, and even maintain that OSGs are material things, thereby preserving any literature that takes an OSG to be something that may interact with material things.

[58] See, for example, Levinson 1980, Salmon 1998, and Thomasson 1999.

appearances, they do certainly seem to be related.[59] Let's call this relation between an abstract artifact and its material appearance 'embodiment*', in order to remain neutral as to whether this relation is a type-token, kind-instance, realization, or some other kind of relation.[60]

In virtue of the embodiment* relation holding, some philosophers maintain that certain abstracta (i.e., things like novels, songs, and recipes), contrary to traditional belief, may be spatially located even though they are immaterial.[61] The thought here, roughly, is that the embodiment* relata may inherit certain properties from each other, and so various properties that have traditionally been thought to be instantiable by either abstracta or concreta but not both (e.g., spatial location) may in fact be instantiated by both. *God Bless You, Mr. Rosewater*, for example, may have the property of being on the top shelf of my bookcase by way of inheritance from one of its physical copies if any such copy happens to occupy that spatial location.

An immaterialist about OSGs might maintain a view similar to that just described. In particular, they might hold that the collection of individuals serving as members of an OSG stand in the embodiment* relation with the OSG, and so certain properties may be inherited by the OSG from those individuals (and vice versa). Under such a view, while OSGs are

[59] We may, for example, destroy my physical copy (indeed, so the thought goes, every physical copy) of *God Bless You, Mr. Rosewater* without thereby destroying the novel itself. The novel, then, must not be identical to my (or any) physical copy of it.

[60] I am here roughly following Korman (2020), though Korman calls the relation between an abstract artifact and its material appearance 'embodiment' rather than 'embodiment*'. Since I already use the term 'embodiment' in Section 1 concerning the relation between a composite whole and its manifestation at some world and time, I have decided to use 'embodiment*' to refer to the relation between an abstract artifact and its material appearance.

[61] For some examples of work that reject the claim that no immaterial entity is spatially located, see Liebesman 2011, Liebesman and Magidor 2017, and Korman 2020. For those that defend the traditional view (i.e., that such things are not spatially located), see, for example, Markosian 2000.

immaterial things, they may nevertheless instantiate certain properties that have traditionally been thought not instantiable by the immaterial. Importantly, for our purposes, the immaterialist about OSGs might hold that one such property is that of being able to interact with the material world. Under this view, for example, The Cars (that is, the immaterial OSG) may then have the property of creating various sound waves by way of inheritance if its members have that property, in which case the OSG, despite being immaterial, may nevertheless interact with the material world. Accordingly, one might argue that, contrary to my claims above, the acceptance of memberless OSGs requires neither that we give up on OSGs being things that may interact with the material world nor that we give up on any philosophical work that assumes this feature of OSGs.

4.3 A distinction: derivative and non-derivative interaction

Perhaps it is the case that by endorsing something like the view just suggested, one may maintain that immaterial OSGs may interact with the material world. But this way of interacting is significantly different than the way by which OSGs are commonly taken to interact with the material world. In what follows, I will draw out this distinction. I will then use it to point out that the suggested immaterialist view of OSGs still cannot accommodate philosophical work that takes OSGs to be things that may interact with the material world. Accordingly, I will conclude that, even if one endorses property inheritance between immaterial and material things, the acceptance of memberless OSGs still comes at the hefty price of jettisoning a substantial amount of literature that appeals to OSGs.

If an immaterialist about OSGs takes their ability to interact with the material world as one had only via inheritance, they must not take OSGs as being able to directly interact with the material world. For example, they may say of The Cars that it creates various

soundwaves during live performances, but they may say this only if some distinct, material thing produces soundwaves. Moreover, they may not say that The Cars itself performs an action or does something particularly special to cause this distinct, material thing to produce soundwaves. Otherwise, an immaterial thing's ability to interact with the material world may be had by means other than inheritance. It must be solely from the fact, then, that some distinct, material thing produces soundwaves that the band produces soundwaves. In other words, the band only indirectly produces soundwaves; it only indirectly interacts with the material world. Indeed, such an interaction is a byproduct, as it is a mere metaphysical result of the actions of a distinct thing. Accordingly, the way in which an OSG may interact with the material world, under the suggested immaterialist view of OSGs, is merely derivative.

Now, once we recognize that the suggested theory of immaterial OSGs may only accommodate an OSG's ability to derivatively interact with the material world, it should be apparent that any such theory cannot accommodate philosophical work that takes OSGs to be things that may interact with the material world. This, perhaps unsurprisingly, is because the way in which an OSG is commonly assumed to interact with the material world is non-derivative.

For example, consider, again, List and Pettit's (2011) theory of agency. The primary reason for why they maintain that we must accept that certain OSGs are agents, recall, is that recognizing them as such allows us to make sense of the various ways in which we interact with them. Their concern here is that a proper understanding of such interactions is not accessible at the individual level due to the incredibly complex ways that these OSGs relate to their members. Now, notice that the interactions with which List and Pettit are concerned must not be merely derivative ones. Otherwise, their proposed solution – that we ascribe

agency to various OSGs – is utterly mysterious. Whether immaterial OSGs are agents simply has nothing to do with how they may derivatively interact with us. Rather, as we have already seen, whether they derivatively interact with us solely depends on whether we interact with certain non-OSGs in the material world (i.e., material things that stand in the embodiment* relation with OSGs).

Of course, proponents of the suggested theory of immaterial OSGs may (correctly) take List and Pettit as being concerned with non-derivative interactions. But doing so fares no better. The problem, of course, is that under the suggested theory, OSGs may only derivatively interact with material things. Accordingly, such a theory cannot make sense of List and Pettit's work being genuinely about OSGs. In order to make sense of their work, then, a proponent of the suggested theory must take it as not really being about OSGs at all. But this, as far as I can see, would be to endorse a particularly egregious misreading of List and Pettit's work, as they are very clear about their subject matter.

Notice that the suggested theory of property inheritance between immaterial and material things does little to relieve the steep theoretical cost of taking OSGs to be things that may exist memberlessly. Even if one endorses it, if they are committed to immaterialism about OSGs (which, I hope I have shown, anyone who accepts the possibility of memberless OSGs is), they must give up on philosophical literature that takes OSGs to be things that may interact with the material world. The problem, as pointed out above, is that the suggested theory of property inheritance only accommodates derivative interaction between OSGs and material things, which is not the manner by which OSGs are commonly taken to interact with the material world. Accordingly, as we have just seen in the case of how it handles List and

Pettit's work, the suggested immaterialist theory about OSGs will not be able to accommodate any such literature.

§5 Conclusion

Throughout this paper I have considered whether we must reject *the member requirement* given the possibility of cases like *Graduating Team*, which seem to suggest that OSGs may exist memberlessly. I hope to have shown the following:

(6) cases like *Graduating Team*, which motivate the intuition that some OSGs may exist without members, do not force us to admit that there are or might be memberless OSGs, and

(7) we have good reason to reject the possibility of memberless OSGs and, instead, accept *the member requirement*.

To show (6), I pointed out that theories according to which OSGs exist only if they have members (i.e., theories that accept *the member requirement*) may accommodate the kinds of cases that motivate the intuition that OSGs may exist memberlessly. In particular, I pointed out how the function correspondence account of OSGs may do this. Instead of taking the OSGs involved in such cases as ones that may exist without members, the function correspondence account may take them to be interrupted OSGs. I then argued that taking these OSGs as ones that may have interrupted existences is not ad hoc, since it is likely the case that we already accept that OSGs may cease to exist and then come back into existence. Indeed, I hope that I have shown that to suggest otherwise – that is, that there are no interrupted OSGs – is deeply counterintuitive.

To show (7), I started by pointing out that the acceptance of memberless OSGs commits one to an immaterialist view of OSGs. Such a view, however, does not comport

with OSGs being things that may interact (non-derivatively, at least) with the material world, a theoretically desirable feature of OSGs that is commonly taken for granted. Accordingly, one must pay a hefty theoretical price if they accept the possibility of memberless OSGs instead of *the member requirement*.

To be clear, I have not tried to show that there is something conceptually incoherent about OSGs existing memberlessly. Indeed, as far as I can see, one may very well have an internally consistent metaphysical view of the world that makes room for such things. Rather, what I have argued is that any such view of OSGs will be one that is theoretically impoverished. And this, I think, is an unacceptable consequence. As I have tried to show above, it shuts the door on a substantial portion of literature that appeals to OSGs, and, in doing so, may even obstruct our ability to understand various historical events and social phenomena. Such a sacrifice is indeed a steep price to pay, especially if I am correct about *the member requirement* being compatible with cases that motivate the intuition that OSGs might exist memberlessly. If I am correct about their compatibility, we need not (and should not) pay this price at all.

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