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Knowledge-Qua in Groups

JESPER KALLESTRUP
University of Aberdeen

Deflationism about group knowledge is the view that a group has knowledge if and only if most of its members have that knowledge. The case against deflationism has revolved around epistemic divergence arguments, which typically aim to show that members' knowledge isn't necessary for group knowledge. This paper is instead devoted to objections against members' knowledge being sufficient for group knowledge. Focusing on structured groups in which members occupy roles that are connected by internal links in a social network, we develop a notion of knowledge qua such occupancy. We proceed to argue that if deflationists adopt such knowledge-qua as what constitutes structured group knowledge, they have the resources to counter worries about the sufficiency condition. If instead groups are taken to be feature collectives, then similar worries are much less pressing. Finally, we elaborate on the societal function of knowledge-qua, as well as the different epistemic assessments that arise, depending on whether the role or its occupant is considered.

1. Introduction

An important question in social epistemology is whether group knowledge is proposition-wise reducible to individual members' knowledge. *Deflationists* answer affirmatively: a group knows that *p* if and only if at least most of its members know that *p*. On the basis of arguments from *epistemic divergence*, *inflationists* reject the necessity condition, insisting that some group knowledge is over and above any members' knowledge. Some inflationists focus on how certain groups conjoin epistemically relevant attitudes of their members, typically via joint commitment (or acceptance), to form irreducible group knowledge, whereas others find inspiration in the way such knowledge is generated through a distribution

Contact: Jesper Kallestrup <jesper.kallestrup@abdn.ac.uk>

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of cognitive labour.[1] We shall set the necessity condition aside, and instead focus on the sufficiency condition which has not been paid the attention it deserves in the recent literature.[2] More precisely, our aim is merely to vindicate deflationism against putative cases in which most, or all, members possess knowledge, which the group to which they belong, supposedly lacks.

We shall proceed as follows. In §2 deflationism is presented in the traditional way as a view that equates group knowledge with aggregate individual knowledge, irrespective of how groups are construed. In particular, we shall borrow, and further elaborate on, Ritchie's distinction (2013; 2015; 2020) between groups as *structured wholes* and groups as *feature collectives*. Section 3 then presents what we shall call the *problem of untoward group knowledge*, in the form of cases of epistemic divergence which aim to show that the sufficiency condition of deflationism is false. The first part of the problem concerns *individual-to-group* knowledge: if at least most members know that *p*, does their group also always know that *p*? The second part is about *group-to-group* knowledge: if a group knows that *p*, does it follow that any other coextensive group also knows that *p*? Section 4 then proceeds to develop *knowledge-qua* as the distinctive kind of knowledge individuals have in virtue of occupying roles in social networks of structured groups. Such knowledge is exactly what should constitute group knowledge by the lights of deflationism, insofar as structured groups are concerned. Importantly, this view can respond satisfactorily to the problem about untoward group knowledge, once group knowledge is conceived along these lines. If instead groups are understood as collectives of which membership merely requires shared features, then the problem about untoward group knowledge is much less pressing. Finally, in §5 we briefly elaborate on knowledge-qua in the context of Craig's (1990) account of the function of the concept of knowledge to flag good informants. And while the *role occupant* is typically considered as the epistemic object, the *role occupied* can also be treated as such an object. From those distinct perspectives, the performance of the former and the function of the latter can be epistemically evaluated in interestingly different ways.

1. Bird (2014: 43–47) dubs these 'the commitment model' and 'the distributed model.' Advocates of the former include Tuomela (1992; 2004; 2011), Gilbert (1989; 2004; 2010), Schmitt (1994), Mathiesen (2011), Tollefsen (2002; 2015), and Wray (2001; 2007). The latter is defended by Hutchins (1995), Tollefsen (2006; 2009), Bird (2010; 2014), De Ridder (2014), Sutton (2008), and Palermos (2022). While these models offer different principles for group composition, in terms of joint commitments and networks of cognitive dependencies, they both view groups as socially structured entities.

2. Gilbert (1987; 1989; 2000; 2002) is an exception to this gap in the literature, though the cases she adduces aim to show that members' beliefs are insufficient for group belief. More on these in §3.

2. The Metaphysics of Groups and Deflationism about Group Knowledge

The term 'group' is used extensively in a myriad of different ways, even when restricted to social groups, i.e., groups composed of people. Think of teams, clubs, companies, institutions, organizations, or even nationalities or ethnicities. Against the background of such ubiquity and diversity, Epstein (2017: 4904ff) takes groups to be a "generic umbrella category," which can at best be characterised along multiple dimensions. Therefore, he counsels against trying to unify all groups into simple typologies. But that's consistent with drawing certain non-exhaustive distinctions between significantly distinct types of groups. Thus, Tollefsen (2019: 163–164) distinguishes small task groups, e.g., a recruitment panel, from stable and structured groups, e.g., a university. Both types can in turn be distinguished from aggregate groups, e.g., Brits living in the US. And Bird (2019: 275–276) talks about established groups, e.g., a town council, as well as "social knowers" which are organic groups (2010: 37), involving bonds that arise out of the mutual interdependence and cognitive cooperation brought about by divisions of cognitive labour. A small research team is a case in point, but so is an entire nation. While all these groups differ in various ways, it isn't true, as Epstein (2017: 4904ff) claims, that they all have too little to unify them, aside from their being built of people. The type of distinctions that Tollefsen, Bird, and others draw are theoretically significant and explanatorily useful. They demarcate important types of groups which feature indispensably in our best social science theories, including in causal explanation of social effects.[3]

We shall adopt a related but slightly different distinction, due to Ritchie (2013; 2015; 2020), between *structured groups* and *feature collectives*.[4] While both are prominent types of groups, the distinction between them need not be exhaustive, as there may be other types of groups as well. To illustrate her view, an exam board or a research institute are structured groups in that they are realizations by individuals of social structures. Members of such groups occupy roles ("nodes") that are connected by functional relations ("edges") constituting their structure. A social structure is a social network of such relations.[5] Together they form *structured wholes* whose parts are interdependent in that their function

3. In fact, Epstein (2017) singles out "constitution-dominated" groups as of particular importance, in that they are constituted by stages, i.e., snapshots of collections of people, at a given time and world.

4. Relatedly, Tollefsen (2015: 3) distinguishes between aggregate groups and corporate groups.

5. See also Haslanger (2016) and Fine (2020). Ritchie (2020: 412) allows for groups to persist through changes not only in which individuals occupy which roles, but also, at least to some extent, in their structure, i.e., in which functional relations hold between those roles.

is constrained by their relation to other parts. Ritchie's account of structured groups is thus a *singularist* view in that these are *groups as one*.[6] Moreover, structured groups involve *individual* and *collective intentionality*: their members must cooperate in shared plans and action, and the roles demanded by the organization of the group will need functional integration. They need to act in ways defined by the functional roles they play. That requires an individual intention to participate, if not to fully commit, by actively occupying one's role, and a shared intention underpinning the joint action of the group where each member intends to act jointly with others. Importantly, the joint action seeks to achieve the *unified aim* or fulfil the *common purpose* of the group: what the group is for. Following Schmitt (1994: 272–273), the aim or purpose of a group constitutes its *office*, and when a group has a *charter*, as constituted by the intentions of its members, its joint actions aim to fulfil its office in accordance with its charter, which comprises the norms or standards by which it is governed. A group's charter and office are sometimes formally enshrined in a system of laws, rules, or regulations; other times they are evidenced by its practice. Either way, a group is structured only if its members jointly set up common goals or objectives and agree on how to proceed in order to meet them. An adequate structure of roles and links within the group is therefore needed to facilitate or expedite the means that are carried out for the purpose of achieving its end. Only when such structure is in place can the group function in its office. We shall henceforth talk about the *epistemic life* distinctive to a group in so far as its *means* and *ends*, thus characterised, pertain to knowledge.

In contrast, feature collectives are collections of people who have (clusters of), say, socio-economic, ethnic, or demographic characteristics in common.[7] Individual members of such collectives instantiate no functional relations of a social structure: they are *non-singular pluralities*. For instance, take five random people waiting at a bus stop, or all Swedes residing in the UK. While the former share a fleeting property, the latter have two demographic features in common. But neither collective is organized or arranged in a particular way. Their members don't occupy roles connected by links in a social network. Furthermore, feature collectives exhibit no *collective intentionality*: since they don't engage in any collaborative deliberation or joint enterprise, there is no shared intention to act jointly with others. Their members think and act as many rather than as one. The reason they lack joint action is that they have no *aim or purpose* at the group-level for such action to achieve or fulfil. There's nothing the collective is for;

6. Most social metaphysicians are singularists, e.g., Effingham's set theoretical view (2010) and Hawley's mereological view (2017). In contrast, Horden and López de Sa (2021) argue for the plural view. See also fn 10 below.

7. Gilbert (1989: 9; 2004: 96) offered the example of haemophiliacs who share an inherited genetic disorder without constituting an "established group."

only individual intentions and actions to attain individual ends. Consequently, features collectives have no epistemic life distinctive to them.[8]

With the foregoing in mind, let's now turn to *deflationism* about group knowledge. What lies at the heart of this view is a *reductive* conception of group knowledge as a summary by some *aggregation rule* of individual members' knowledge. Typically, the rule is *majority* in which case the group knows just in case most of its members know, but it might also be *supermajority* (e.g., fractions such as 3/5, 2/3 or 3/4) or even *unanimity*.[9] Here's a first stab:

(DEFLATIONISM) Necessarily, a group *G* knows that *p* if and only if at least most of the individual members of *G* know that *p*.

Note that DEFLATIONISM is intended to apply equally to structured groups and feature collectives. Quinton (1975: 2) famously viewed groups, or "social wholes," as *logical constructions* of individuals as their parts: they are as real and concrete as their members but carry no further ontological implications.[10] On his

8. Does that mean feature collectives aren't proper groups? Gilbert (1989) hesitates to attribute *sociality* to crowds, which are a kind of feature collective. On her view, sociality requires joint commitments, which many crowds lack, but this seems unduly narrow. If adopted, we would have to classify certain examples of the distributed model as not being genuinely social. Just as the mark of the mental is notoriously difficult to pin down, so is the mark of the social. See also Greenwood (1996).

9. In which case, the individuals have *shared* knowledge, or "mutual" knowledge as Vanderschraaf and Sillari (2005) call it, which is different from *common knowledge*, in that the latter involves everyone knowing that *p*, everyone knowing that everyone knows that *p*, etc. Thus, in emperor's new clothes cases, there is mutual but not common knowledge. See also §3.

10. For a recent defence of the plural view on which each group is identical to the plurality of its members, see (Horden & López de Sa 2021). They claim that group terms are semantically plural yet syntactically singular. In fact, they also hold that every plurality of people is a group, though we typically restrict quantification to ensure social significance. Their view is attractive for reasons of ontological parsimony, because it isn't committed to, say, the existence of complex sets, as on Effingham's view (2010), or scattered fusions of people, as on Hawley's (2017) view. They also offer plausible responses to the objection from changes in membership, i.e., that groups vary in membership over time or between worlds, but pluralities do not, and to the objection from co-extensive groups, i.e., that two distinct groups can have identical members whereas distinct pluralities cannot. While we agree that a plural view is true of feature collectives, we follow Ritchie and others in preferring a singularist view about structured groups. The first reason is that as group terms are modally flexible on the plural view, it has the odd consequence that, say, 'ABBA might not have been ABBA' and 'ABBA might have been Boney M' have true (wide scope) readings. The point is we need rigidity to engage in counterfactual thinking about groups. In fairness, Horden and López de Sa (2021) do admit that group terms can also be used to rigidly pick out abstract group roles, so maybe these sentences would be cases in point. The second, and more important, reason is that, as noted in §1, many of the epistemic divergence arguments against the necessity condition of deflationism seem compelling, whether they rely on the commitment model or the distributed model. While we shall not rehearse those arguments here, their conclusion that some structured groups have knowledge over and above their members is incompatible with the plural view.

view, groups are defined by subject-terms of laws of social science, whether they be classes in sociology, governments in politics, or firms in economics. Lumping all these together, he winded up with a conception of group attitudes as aggregates of individual attitudes:

> To ascribe mental predicates to a group is always an indirect way of ascribing such predicates to its members. With such mental states as beliefs and attitudes the ascriptions are of what I have called a summative kind. To say that the industrial working class is determined to resist anti-trade-union laws is to say that all or most industrial workers are so minded. (1975: 17)

Now, in the case of knowledge, such a deflationist conception has a lot going for it. After all, it sounds right to say that an appointment panel knows the employment legislation, because most of their respective members possess that knowledge.[11] However, DEFLATIONISM runs into two obvious problems.[12] For this view would rule out any instances of group knowledge where only a minority of members have the pertinent knowledge. However, a university may have knowledge that it faces a budgetary deficit in virtue of only its senior management being privy to its dire financial situation. Such cases recommend the requirement that the relevant knowledge be had by a (i) *significant number* of (ii) *operative members*. Following Tuomela (1992; 2004; 2013), an operative member is someone with decision-making authority, and 'significant number' is deliberately vague to allow for varieties between groups. In some cases, a single member with executive power may be enough; in others, multiple such members are needed. In the university case, for instance, the aggregation rule is *minority*; or *dictatorial* if its principal being in the know suffices. With these points in mind, consider this amended formulation:

> (DEFLATIONISM*) Necessarily, group *G* knows that *p* if and only if there exist a significant number of operative members of *G* who know that *p*.

Note that talk about operative members typically won't apply to feature collectives, e.g., no Swedes residing in the UK have decision-making authority on behalf of all others, and so for that reason DEFLATIONISM* is primarily a view about

11. As List (2014) notes, aggregate attitudes play an important theoretical role in political science, e.g., talk about public opinion on some issue is an aggregate on elicited individual opinions, typically attributed to populations on the basis of opinion polls.

12. See also Lackey (2020) and Kallestrup (2024). And to repeat, we are only concerned with the sufficiency condition.

structured group knowledge. Also, reflect that "at least most of the individual members of *G*" in DEFLATIONISM suggests a disjunctive list of *named* members. For example, if *G* has *a*, *b* and *c* as its members, this phrase can be read as saying that either *a* and *b*, *a* and *c*, *b* and *c*, or *a*, *b* and *c* know that *p*. But then *G*'s knowledge couldn't survive replacement of a majority of its members even if the replaced and replacing members shared the knowledge. DEFLATIONISM* fixes this problem by *existentially quantifying* over members, thereby allowing for groups not to have the same members at all worlds or times.

3. The Problem about Untoward Group Knowledge

Objections levelled against deflationism have typically revolved around the claim that a group knows that *p only if* an aggregate of its members know that *p*. *Inflationists* have mounted *epistemic divergence* arguments with the aim of showing that groups may know *p* even if none of their members do, and so group knowledge would seem to be proposition-by-proposition irreducible.[13] As mentioned in §1, some inflationists exploit theories about collective intentionality, whereas others use insights from the literature on distributed cognition. We shall set all such objections against the necessity condition aside.[14] Instead, this section presents the central, but hitherto underexplored, objections against the sufficiency condition.[15] Adopting DEFLATIONISM* from §2, this is the claim that a group knows that *p if* a significant number of its operative members know that *p*.

We shall divide the objections into two broad types, which in turn admit of more fine-grained distinctions. In *members-to-group* (MG) cases, members know that *p*, but their group intuitively lacks knowledge that *p*, either because (a) *p* is mundane (trivial or pointless), (b) *p* is interesting and so not mundane, but irrelevant to the epistemic life of the group, or (c) *p* is both interesting and relevant to the epistemic life of the group, but its members deny and behave as if they don't know *p*.[16] In *group-to-group* (GG) cases, one group knows that *p*, but a distinct, yet extensionally coincident, group intuitively doesn't know *p*. For (d) *p* may be relevant to the epistemic life of the first group, but not the second group, or (e) *p* may be relevant to the epistemic life of both groups, but the

13. There are different views within the inflationist camp about the *supervenience* of group knowledge on individual features. See Kallestrup (2016), and Hiller and Randall (2022), for recent discussion.

14. For replies, see for example McMahon (2003) and Meijers (2003).

15. The following owes much to Gilbert (1987; 1989; 2000; 2002) but see also Corlett (1996), Schmitt (1994), Mathiesen (2011), Tollefsen (2020), Bird (2019), Lackey (2020), and Kallestrup (2024). Since inflationism is merely the view that *some* group knowledge is non-reductive, the objection in this section might also apply to this view.

16. See also Schmitt (1994: 261) and Corlett (1996: 88).

members deny and behave as if they don't know *p* in the case of one, but not the other, group.

Let's begin with (MG), starting with (a)-type cases. The following propositions are plausibly mundane:

(i) Some people are taller than others.
(ii) There are 130,027,896 blades of grass in my back garden.
(iii) No peg is both round and square.

Surely, we can safely assume that a significant number of operative members of, say, a Tennis Club or a Library Committee know (i) and (iii), and could come to know (ii) after much tedious, painstaking work, without similar knowledge necessarily being shared by these structured groups.[17] The necessity is key: the worry needn't be that no group could possibly know (i) – (iii). There may be special circumstances, as we shall illustrate in §4, where a group knows a mundane proposition, which isn't *distinctive* of it but nevertheless plays an indispensable role in its deliberations. Rather, the worry is that no matter which role such proposition may or may not play within any structured group, if enough of its operative members know it for whatever reason, DEFLATIONISM* implies that the group does too.

But the reason it sounds odd to attribute knowledge of (i) – (iii) to our Tennis Club or a Library Committee, in the absence of special circumstances, is rather that knowledge of them is *irrelevant* to their characteristic epistemic lives. After all, just as we can imagine an individual for whom, say, counting the number of blades of grass is a worthwhile exercise, we can envisage a Society for Mundane Facts for which such knowledge would be pertinent. In fact, it's unclear whether there is a meaningful notion of a mundane proposition *in itself*, i.e., irrespective of any individual or collective epistemic perspective.

The point is therefore that (a)-type cases are problematic only in so far as they collapse into (b)-type cases. Consider instead the following:

(iv) The Library is short of logic textbooks.
(v) A tiebreaker is won by the first player to score seven points.

Clearly, these are of interest but not of relevance to all structured groups: (iv), but not (v), is relevant to the Library Committee, and (v), but not (iv), is relevant to the Tennis Club. Let's now assume that a significant number of operative members of the Tennis Club know (iv), because, as it happens, all of them are logic students, and similarly that a significant number of operative members of the Library

17. For other examples, see Tollefsen (2019: 4), Schmitt (1994: 261), Corlett (1996: 88), Habgood-Coote (2020: 948–950) and Bird (2010: 27ff; 2019: 276).

Committee know (v), since they are all avid tennis fans. If DEFLATIONISM* is true, we must then ascribe knowledge of (iv) to the Tennis Club, and knowledge of (v) to the Library Committee. That seems wrong in that such respective knowledge is alien to their epistemic lives. For example, the Tennis Club isn't disposed to assert (iv), use (iv) as a premise in practical reasoning, or act as if (iv) is true. (iv) isn't subject to any deliberation or decision-making of the Tennis Club; indeed, the reasons for which its members believe (iv), their assertions of (iv), and the actions they take on knowing (iv), have nothing to do with their Tennis Club membership.[18]

Even if a way could be found around the problem posed by (b)-type cases, that may not suffice to get the deflationist off the hook; or so (c)-type cases aim to show. Take again (iv), but now assume that while a significant number of operative members of the Library Committee know (iv), they all deny and behave as if they don't know it. Because they all keep their knowledge *secret*, and claiming ignorance if asked, (iv) is never considered, let alone acted on, by the Committee; in fact, all members deny having ever heard about any shortage. Since (iv) plays no role in its epistemic life, by way of not featuring in its deliberations, policy making or guiding joint action, knowledge thereof is not to be attributed to it; or so the objection goes. A special instance of a (c)-type case is *emperor's new clothes*, where there's *shared* but not *common* knowledge: everyone knows but nobody knows that everyone else knows.[19] Maybe everyone believes that only they believe, as they all mistakenly assume that others would have taken action, had they known.[20] Be that as it may, the (MG) problem posed by (c)- and (b)-type cases alike is that DEFLATIONISM* has it that (perhaps even relevant) knowledge by enough individuals is necessarily sufficient for corresponding group knowledge.

Let's now proceed to ponder the (GG) problem. To repeat, the worry is here that while one structured group knows some proposition, a different, yet extensionally coincident, structured group should intuitively not be attributed the same knowledge, as predicted it must by DEFLATIONISM*. In fact, co-extensiveness isn't strictly needed, but only that the groups have a significant number of operative members in common.[21] Let's begin with (d)-type cases where the target proposition is relevant to one group, but not the other group whose epistemic life is very different. Take Gilbert's (1987: 189; cf. 1989) two co-membership

18. Lackey's reply (2020: 50–51) to a similar case is that while such attributions are strictly true, they are irrelevant, unimportant, or uninteresting.

19. See also Lewis (1969), and Vanderschaaf & Sillari (2005).

20. Or maybe each member thinks that only they would hold what they regard as a strange belief. Or maybe everyone is embarrassed or afraid to speak out of fear of being mocked for thinking they lack reasons for their belief. In such a "secrecy situation," Gilbert (1989: 257–258) claims that it would be a mistake to attribute group belief. See also Bird (2010: 29–30; 2019: 276).

21. Not having all members in common is sufficient for distinctness, but even actual co-membership groups may be distinct in virtue of having different members at different times or worlds.

groups: the Library Committee and the Food Committee of a College.[22] Every member of the Library Committee might know that:

(vi) There are a million volumes in the library,

and so might the Committee itself. Yet the Food Committee holds no such belief. Conversely, all the individuals might also know that:

(vii) There is too much starch in the Student Union diet,

but only the Food Committee can be said to know this, for only they have discussed the matter and agreed on the point. So, the challenge is to *pair* individual knowledge with the right groups. Gilbert's intuitions about such cases are driven by the fact that "established" groups have very different purposes and accordingly make judgments about different issues based on different kinds of evidence.[23] The problem is DEFLATIONISM* predicts that if one structured group knows *p*, then any co-extensional structured group also knows *p*, regardless of any considerations about relevance to their respective epistemic lives.

Finally, let's turn to the (GG) problem when viewed through the lens of an (e)-type case. Assume again our College Food Committee knows (vii), since a significant number of its operative members not only know it, but, in addition, (vii) is also subject to extensive discussion at their meetings, and so on. Now imagine that all the same individuals also make up the University Food Committee. Clearly, (vii) is equally relevant to the latter, but suppose (vii) was never considered by this group, let alone acted on at the university level. In fact, when the University Food Committee was asked why it failed to contact the Student Union to address the issue, all its members denied any knowledge of (vii). Such a case aims to prompt the intuition that the University Food Committee fails to know what the College Food Committee knows, thus posing a counterexample to DEFLATIONISM*.

Before we press on, two remarks are in order. First, while the (GG) problem is articulated separately in the literature, it only arises because of the (MG) problem. Thus, (d)-type cases are *special cases* of (b)-type cases. For the reason

22. See also Tollefsen (2019: 4).

23. Gilbert's cases pertain to group beliefs, as do the cases in Tollefsen (2009). As is familiar, Gilbert (1987: 195; 1989: 306; 1994: 245–246; 2004: 100) takes a group to believe *p* when its members are jointly committed to accepting *p*, which is a joint commitment to letting *p* stand as the view of the group. On her view, a joint commitment requires that it's commonly known within a group that its individual members openly express their commitment conditional on others also so committing. In contrast, Tuomela (1992; 2004) prefers an unconditional commitment that presupposes the commitment of others, where tacit acceptance may suffice. He also allows for the operative members to make decisions on behalf of the group: the group believes *p* when the operative members jointly accept *p*, where the non-operative members tend to tacitly accept *p*.

co-extensive groups are saddled with the same knowledge is that, by the light of DEFLATIONISM*, any group must know any proposition known by enough operative members, and so in particular must any co-extensive group in which enough such members know that proposition, irrespective of any relevance to their epistemic lives. Similarly, (e)-type cases are *special cases* of (c)-type cases. That means we can safely set the (GG) problem aside to focus on the (MG) problem.

The second remark is about our distinction between structured groups and feature collectives from §2. As the foregoing makes plain, the problem about untoward group knowledge arises for DEFLATIONISM* *if* groups are structured wholes with a distinctive epistemic life. But is it also the case that this problem arises *only if* groups are conceived along those lines? Seeing that DEFLATIONISM* is primarily a view about structured groups, the question is more whether there is such a problem for DEFLATIONISM when groups are considered as feature collectives. Take (b)-type cases. Clearly, given that feature collectives lack any characteristic epistemic life at the group-level, the *same* problem does not arise. For these collectives are neither suitably structured, nor do they have any objectives or means to achieve them, as witnessed by the absence of any joint action. Still, it could sound strange to say that the collective of all Swedes in the UK knows that (iv) The Library is short of logic textbooks, or in an (a)-type case, that this collective knows that (i) some people are taller than others, even if all such individuals know (iv) and (i). One response is to *question the evidential weight of the intuition*; after all, collectives are nothing but their members, and so if every single Swede in the UK really does know those propositions, there's no mystery in ascribing the knowledge to the collection of all of them. Since talk about 'collectives' is a shorthand for the summation of their members, no matter which propositions we assume the respective individuals know, the implication by DEFLATIONISM that the corresponding collective must also be attributed such knowledge presents no difficulty.[24]

4. Knowledge-Qua and Deflationism

Having presented different versions of the problem about untoward group knowledge, the question is now whether the deflationist has any resources to provide a satisfactory response. This section develops an affirmative answer that builds further features of structured groups into a deflationst definition of group knowledge. Basically, this problem comes about because DEFLATIONISM* implies that group knowledge is a mere aggregate of operative members' knowledge, *irrespective of their group membership*. But structured groups can only operate in

24. For those who harbour a lingering intuition of oddness about these knowledge attributions, we shall offer a different response at the end of §4.

their office and by their charter which, together with collective intentions and organizational structure, determine their distinctive epistemic life. The obvious remedy is to further restrict the kind of individual knowledge that may constitute group knowledge.

To that end we shall adopt the notion of *knowledge-qua*. As individuals we have a rich and multifaceted epistemic life, acquiring and sustaining a vast amount of diverse knowledge on our own or through the reliance on others. But we also occupy various social roles, serving as members of structured groups, or in occupational, recreational, etc., capacities. Knowledge-qua is knowledge concerning such roles (as opposed to knowledge *simpliciter*). Importantly, individuals, and not the roles they play, are the subjects of knowledge. The roles are captured by *definite descriptions*: to uniquely satisfy descriptive condition *F* is to uniquely occupy the role described by 'the *F*.' So, to say the *F* knows that *p* is tantamount to the claim that the individual *S*, who uniquely occupies the *F*-role, knows that *p* qua *F*. That holds in actual fact, but not as a matter of necessity. For while *S* is picked out by a *rigid* proper name, the *non-rigidity* of 'the *F*' accommodates the possibility of different individuals occupying the same role at different worlds or times.[25] So, for an equivalence involving '*S*' and 'the *F*' to be necessarily true, the latter must be *rigidified*. Focusing on group roles, consider:

(KNOWLEDGE-QUA) Necessarily, individual *S* knows that *p* qua unique occupier of role *F* of group *G* if and only if there is a unique *x* such that (i) *x* actually occupies *F* of *G*, (ii) *x* knows that *p*, and (iii) *x* is *S*.

For example, Liz knows that (iv) the Library is short of logic textbooks, qua chairperson of the Library Committee, just in case there is a unique individual who is actually its chairperson, that individual knows (iv), and Liz is that individual. Moreover, if, as we assume, Liz is in actual fact the chairperson, then there are possible worlds in which someone other than Liz is the chairperson, but there are no possible worlds in which Liz isn't that person in the actual world. A special case is where any (random) member of *G*, or any member of a particular sub-group of *G*, knows that *p*, in which case the description is *indefinite*:

(KNOWLEDGE-QUA*) Necessarily, individual *S* knows that *p* qua occupier of role *F* of group *G* if and only if there is an *x* such that (i) *x* actually occupies *F* of *G*, (ii) *x* knows that *p*, and (iii) *x* is *S*.

25. One can use 'being *F*' as a rigid designator of the role itself, as opposed to 'the *F*' which flexibly picks out its unique occupant, i.e., the individual who uniquely satisfies condition *F* which describes that role.

Suppose instead that any member of the Library Committee knows (iv). Then Bill knows (iv) qua member of that Committee just in case there is an individual who is actually a Committee member, that individual knows (iv), and Bill is such an individual. And while we can also speak of *S* knowing-qua in *other contexts*, e.g., qua witnessing a crime or qua attending a party, there is no such thing as knowing-qua individual. The attribution 'Liz knows that *p* qua Liz' sounds odd; unless the intended meaning is to convey knowledge Liz has qua being the kind of inquisitive person she is. Since ordinary proper names aren't susceptible to descriptive analyses in terms of (non-trivial) necessary and sufficient conditions, 'qua Liz' provides no descriptive property in virtue of the instantiation of which Liz can be said to know *p*.

More substantially, we can say that *S* may *acquire* knowledge-qua through filling a role in the social structure of *G*; or its source may originate elsewhere but *sustaining* it bears on such occupancy, broadly understood to include any knowledge that would help promote the epistemic life of *G*. Importantly, for *S* to occupy a role in *G* requires not just that *S* possesses knowledge relevant to *G* in that respect, but also that *S* be able and willing to bring that knowledge to bear on matters pertaining to *G*.[26] The reason is that *S* occupies such a role by standing in the right functional relations, and that involves, *inter alia*, possessing and utilising knowledge pertaining to it. That means *G* can only come to know what their members know qua occupying roles in *G* if the knowledge is accessible to *G.* For instance, Liz can only fill the role of chairperson of the Library Committee if she knows enough about convening its meetings, setting annual budgets, leading its strategy, etc., *and* is prepared to share, or otherwise act on, such knowledge as and when needed. Only if Liz's knowledge qua chairperson is at the Committee's disposal does it qualify for group knowledge.[27] Against the background of the foregoing characterisation of knowing-qua group membership, consider the following amendment:

(DEFLATIONISM**) Necessarily, group *G* knows that *p* if and only if there exist a significant number of operative members of *G* who qua (unique) membership of *G* know that *p* and make their knowledge available to *G*.[28]

26. Horden and López de Sa (2021: 247) observe that when *S* occupies two distinct group roles, *S* may perform certain actions or have certain powers or duties, because S occupies one, rather than another, role. While they don't discuss individual or group knowledge, their point can be extended such that *S* can be said to know *p* qua membership of *G* rather than membership of *G**.

27. Similarly, on Habgood-Coote's view (2020), a proposition being available to collective action is a condition on group knowledge, because being unavailable means the group isn't disposed to act on it in a relevant set of group-appropriate tasks.

28. DEFLATIONISM** is also a view that primarily applies to structured groups. A deflationist account of knowledge by feature collectives would thus not include knowledge-qua role occupant,

What occupying a role in *G* doesn't mean is that *G* imposes certain limits on *S*'s knowledge (*simpliciter*), or that *S* has some such knowledge only relative to membership of *G*.[29] For a medical doctor who is a member of a government advisory board, for instance, the justification of her medical beliefs does not set higher standards of admissible reasons or strength of reasons. Just as any layperson, she can form a belief in medical proposition *p* sufficiently justified for knowledge from reading *p* in a reliable newspaper. Of course, the medical doctor may have specialist (undefeated) defeaters which the layperson lacks, but in the absence of such, nothing prevents her from acquiring knowledge on that basis. The claim isn't that because of her professional role, or board membership, she doesn't know *p* period, or that she has the knowledge relative to her personal life, but not relative to her professional role, or board membership. As Mathiesen (2011: 30–31), following Meijers (2003: 379), notes, *S*'s epistemic access to evidence isn't bound to any occupied group roles, but how *S* in group contexts proceeds to reason, speak or act on that evidence may be.[30] Knowledge-qua isn't about whether *S* knows, or what *S* is able to know, but concerns the constraints that membership of *G* place on how *S* may put her knowledge to use in deliberation and action vis-à-vis *G*, with a view to potentially constituting group knowledge.

One may worry that DEFLATIONISM** illicitly incorporates certain inflationist elements. After all, group members relate to both the group and to each other in virtue of being such members. But we must be careful not to muddle up the metaphysics with the epistemology of groups. True, DEFLATIONISM** is primarily a view that applies to structured groups, which involve such complex relations, but group knowledge is still exclusively a matter of *aggregating* the available

bearing indeterminate, borderline, or mixed cases in mind, though see the end of this section for a different kind of knowledge-qua.

29. On Gilbert's (1989: 305–306) notion of believing-qua group membership, believing in one's capacity as group member is different from either believing personally or believing period: "Qua a member of Tom's family, I may believe Tom should have got the job; qua department member I may be of the opinion that he was the worst candidate; as for my personal view, I may think he fell somewhere in the middle." But as Gilbert (306) recognises, this take on believing-qua "undermines one's integrity" by setting up an "internal conflict." One will feel pressure to abandon one's personal belief to allow for continued membership of the group. Likewise, Mathiesen (2011: 31) claims that individuals may accept one proposition qua members of a group which they do not accept qua individuals. On his view, their beliefs are also "role-bound," and so he is aware of the need to resolve any inner tension between what a group and a member accepts for good reasons.

30. Following Schmitt (1994: 271–273), we can say our doctor is epistemically justified in believing *p*, but not medically justified in stating, or in acting on *p*, in her medical practice. The doctor may have special defeating evidence against the newspaper report, but if not, she should know all the same. The epistemic standards aren't higher for someone who occupies an expert role or is member of some expert group. What are higher for an expert are the special professional standards of expert statements and expert action. So, there are ordinary standards for knowledge, but expert occupation or group membership imposes restrictions on reliance on such knowledge in professional or group activities. No such restrictions apply in ordinary contexts.

knowledge of members. Of course, one may wish to deflate both groups and group knowledge, but instead we combine epistemological deflationism with, if you like, metaphysical inflationism in DEFLATIONISM**. To repeat, *singularism* about groups is the popular view among social metaphysicians that groups are a single thing, rather than a plurality of their members. It's a highly plausible view of structured groups, or so we argued in §2, drawing on Ritchie (2013; 2015; 2020). In any case, any deflationist should, independently of their metaphysical commitments, acknowledge the importance of showing that DEFLATIONISM**, thus understood, can resist a range of objections against its sufficiency condition—which is all we aim to do.

Let's now revisit the problem about untoward group knowledge. The knowledge-qua constraint is designed to be *vague* enough to include the different kinds of knowledge had by members of diverse structured groups, but *precise* enough to exclude the possibility that such groups be ascribed knowledge of no relevance to their distinctive epistemic lives, or indeed knowledge of relevance which members nevertheless disavow in group contexts. Crucially, adopting this constraint enables the deflationist to offer a convincing reply to our problem. Given that, as shown in §3, the (GG) problem is a special case of the (MG) problem, we can safely restrict attention to the latter. First off, take our (b)-type case that a significant number of operative members of the Tennis Club knows:

(iv) The Library is short of logic textbooks.

Because (iv) is disconnected from the epistemic life of the Tennis Club, no account of group knowledge should imply that it knows (iv); or so the worry goes. Fortunately, DEFLATIONISM** makes no such prediction, for these individuals clearly don't know (iv) qua members of the Tennis Club, given our definition of knowledge-qua, in that their knowledge of (iv) bears no relevance to the epistemic means or ends of that group. In particular, the reason for which they believe (iv) has nothing to do with their Club membership; they just all happen to be logic students, and so can at best be said to know (iv) in that capacity. Similarly, a significant number of operative members of the Library Committee know:

(v) A tiebreaker is won by the first player to score seven points.

But (v) is intuitively not known by the Library Committee, as (v) is irrelevant to how it operates or what it's for, epistemically speaking. However, DEFLATIONISM** implies no ascription of such group knowledge, because these individuals don't know (v) qua members of this Committee. The reason for which they believe (v) has nothing to do with such membership, but rather stem from unrelated tennis activities in which they all engage.

Moving on to a (c)-type case, consider instead the example of a significant number of operative members of our Library Committee knowing (iv). That proposition *is* relevant to this group, but these members all deny their knowledge, behaving as if they are ignorant. And perhaps, for that reason, no member knows that other members know (iv). In any case, the worry is that no view should predict that the Library Committee knows (iv), because (iv) hasn't been considered by it, let alone appeared in policy making or guided joint action. Again, the knowledge-qua constraint comes to the rescue, because it's tied up with role occupancy which demands that members actively make their relevant knowledge available to the group if needed to progress its epistemic pursuits. For members of the Library Committee to know (iv) qua such membership, (iv) must be relevant to its epistemic life, which it is, but qua such membership, they must *also* be able and willing to deploy their knowledge in the service of the Committee, as required by the functional relations definitive of their roles. Because such (c)-type case is a situation of *secrecy*, where the members expressly deny any knowledge of (iv), they plainly fail to make their knowledge available to the Committee. Accordingly, DEFLATIONISM** blocks the attribution of group knowledge to it.[31]

Let's consider an objection to the foregoing inspired by Bird, who points out that even if beliefs in mundane propositions, as in type-(a) cases, aren't adopted as group beliefs, they can still play a role in group deliberations:

> The Library Committee believes that it will have a storage problem because the library has space for 100,000 books but recent acquisitions will lead to a collection of 107,000. How do we explain that if we deny that the Library Committee has the mundane belief that 107,000 is greater than 100,000? (2019: 276)

The point is well taken. And indeed, while this passage focuses on belief, the case could easily be rephrased in terms of knowledge. Now, we argued in §3 that type-(a) cases collapse into type-(b) cases: any problem about untoward group knowledge of mundane propositions is really a problem about irrelevant propositions. And Bird's example illustrates that since mundane propositions can be relevant, they need not generate such a problem. For there is nothing untoward about the Library Committee knowing:

31. We mentioned in fn 15 that the problem about untoward group knowledge might also afflict inflationist views, at least in so far as they accept that at least some group knowledge is a matter of aggregating individual members' knowledge, but our knowledge-qua constraint would be equally available to said views. In fact, especially those inflationists who subscribe to the distribution model in fn 1 could argue that even non-reductive group knowledge is at least partially determined by their members' knowledge-qua. Think of how research teams acquire scientific knowledge through collaboration between their members for whom the cognitive labour of the group is distributed. See also Knorr Cetina (1999) and Bird (2010; 2014).

(viii) 107,000 is greater than 100,000.

On the contrary, the elicited intuition is that the Committee *does* know (viii). The alleged problem for our view is that the case also seems to show that since none of its members know (viii) qua Committee member, DEFLATIONISM** implies that neither does the Committee itself. Now, when we presented the (b)-type cases, the worry was that ascribing the knowledge in question would be irrelevant to the epistemic life of the groups. The cases we offered all involved propositions disconnected from their *ends*, i.e., what we called their offices. But we defined a group's distinctive epistemic life as including *both* its means and ends, in so far as they pertain to knowledge. And clearly, while (viii) is irrelevant vis-à-vis the epistemic end of the Committee, and so knowledge of (viii) wouldn't be characteristic of it, (viii) is relevant to its *means*, i.e., its deliberations or reasoning, and so (viii) is relevant to the epistemic life of the group in that sense. What is needed is a distinction between *distinctive* and *auxiliary* group knowledge, where knowledge of (viii) exemplifies the latter. In contrast, knowledge of (iv) would exemplify the former vis-à-vis the Committee. And because we defined knowledge-qua broadly to include any knowledge that would further the epistemic life of the group, the individuals in question can be said to know (viii) qua Committee members, because such knowledge clearly contributes as a means towards achieving its epistemic ends. So, Bird's case presents no insuperable problem for DEFLATIONISM**.[32]

Let's finally revisit the question of whether the problem about untoward knowledge also arises for DEFLATIONISM *if* groups are considered as feature collectives. We offered one response at the end of §3, namely that it has no bite as long as care is taken not to read more into 'collectives' than a shorthand for a summation of their members. But maybe the intuition of oddness is due to those members having a *feature* in common. The worry is that, to use the same examples, attributing knowledge that (iv) the Library is short of logic textbooks, or that (i) some people are taller than others, to the collective of all Swedes in the UK may sound strange, because it implies that each member knows

32. Lackey (2020: 77ff) presents a paradox according to which a group of guards *G* at the British Museum justifiably believes both that nobody is planning an inside theft of a famous painting and that someone is planning such theft, via inference from conflicting bases amongst the guards. In fact, the former belief constitutes a rebutting psychological defeater such that the latter belief is unjustified. As knowledge is factive, the paradox doesn't apply to deflationism**, but for a deflationist view about justification, a qua-constraint would ensure that aggregating members' beliefs doesn't entail conflicting bases for these beliefs, or more generally that all bases for beliefs survive full disclosure. Since a justification-qua constraint would equally involve an ability and willingness to make one's justification available in pursuit of the group's office, the functional relations that one instantiates when filling a role may require that one's basis for belief be free from other members' counterevidence before feeding into group deliberations with a view to constituting group justification.

those propositions *in virtue of* being Swedish or residing in the UK. So, while the original problem about untoward knowledge applies to structured groups with distinctive epistemic lives, this new problem about attributing such knowledge to collectives would concern their features. After all, any worry about such collectives cannot pertain to their epistemic lives as they lack any such at the group-level.

The best response is again to appeal to knowledge-qua. We mentioned earlier that we can speak of *S* knowing-qua in contexts other than group membership, or more generally, occupying social roles. At this juncture we could thus introduce a different, but related, notion of knowing-qua an ethic or demographic feature, where this would be a matter of what knowledge an individual with that feature typically (but not invariably) possesses. In the case of our Swedes in the UK, knowing that Stockholm is the capital of Sweden is a proposition they are likely to know qua being Swedish, while knowing (iv) or (i) is not. The idea would then be to build such knowledge-qua constraint into DEFLATIONISM in so far as this view concerns feature collectives.

5. The Normativity and Function of Knowledge-Qua

In this final section we shall further elaborate on knowledge-qua to demonstrate its significance more broadly in social epistemology. We shall focus on *normative assessments*, and on the *societal function*, of such knowledge. Let's dwell on these in turn.

We characterised structured groups in terms of the realization by individuals of social structures, which are social networks of functional relations between the individuals. The members of such groups occupy roles that are characterised functionally in terms of those relations. To occupy such roles is to instantiate the functional relations specified by them, the sum of which represents the functional organization of the group. We mentioned that standing in those relations requires acting in ways defined by the role, as well as individual and shared intentions underpinning the joint action of the group. But centrally for our purposes, group roles also place *epistemic constraints* on their occupiers: knowledge-qua is knowledge relevant to the characteristic epistemic lives of groups which individuals possess in virtue of occupying roles in them, and which they must be able and willing to utilise in order to facilitate the means, or achieve the ends, which comprise those lives.

As regards the requirement that roles specify what it takes to occupy them, Shapiro (2005: 67; 1997: 82–83) differentiates between a *places-are-offices* perspective, where the objects that occupy the roles (or "fill the places") of the structures are considered, and a *places-are-objects* perspective, where the roles of the

structures are themselves treated as objects.[33] From the latter perspective, the functional relations that must obtain for role occupancy are assessed, possibly against the whole network, but instantiating those relations is a performance by the role occupier which is evaluated from the former perspective. Shapiro's distinction also makes two distinct *epistemic assessments* possible. On the one hand, taking the places-are-offices perspective allows for assessments of the epistemic performances of the *role occupant* in a structure in terms of how good an epistemic job an individual is doing in playing that role, i.e., how well she epistemically *performs* in it. On the other hand, taking the *places-are-objects* perspective makes for epistemic assessments of the *function* of the *role occupied*, perhaps against the entire structure. Given that knowledge-qua straddles both types of evaluation, let's further explore these two perspectives.

The first observation from the places-are-offices perspective, is that, depending on the group in question, knowledge-qua may be more or less strongly attached to a role, as a matter of convention or practice. And especially for well-established structured groups, the relevant *epistemic community* will know roughly which knowledge is to what extent part of which roles, and so will have varying degrees of *epistemic expectations* regarding role occupiers. For example, since knowing about current library expenditure is widely known within the university community to be part and parcel of the role of Treasurer of the Library Committee, if James fills that role, he *ought* to have such knowledge, and those community members can *reasonably expect* him to have it. Other knowledge, e.g., of previous year's expenditure, is more peripheral to the role, and the members will have less of an expectation of James. However, if James turns out to lack knowledge for which he is *responsible* in that capacity, he may thus be subject to *blame*, or even feelings of *resentment*, for not knowing what he *should have known* qua Treasurer. In fact, if it transpires that James fails to know most or all of what that role strongly requires of him, he may be deemed to not just perform poorly in the role, but the chairperson, or someone else with suitable authority, may rightly decide to remove him from it.[34]

Likewise, not only is there knowledge which the epistemic community does not reasonably expect a role occupier to have, such as of the irrelevant

33. We shall adapt those perspectives to the epistemology of groups, bearing in mind that Shapiro's (2005; 1997) *ante rem* structuralism is about mathematical structures consisting of places and relations.

34. Goldberg (2016; 2017) argues that the obligation in knowledge someone should or ought to have (had) is grounded in the reasonable expectations of others which in turn are made reasonable by norms internal to the epistemic community. Our systematic epistemic reliance on others is rationalized by our expectations that those who play various (professional or institutional) roles in that community are in the know, and so we hold them accountable. Were they to violate our expectations by failing to know what is reasonably expected of them, they would be subject to epistemic criticism for exposing us to risks of being misled. See also Benton (2016).

propositions (iv) and (v) vis-à-vis member of the Tennis Club and the Library Committee from §3, but there is also knowledge which the epistemic community reasonably expects a role occupier not to have.

Suppose Dr. Meyers, who is a GP, accessed personal data by breaching patient confidentiality, which is regarded as gross misconduct. Dr. Meyers ought not have such knowledge in that capacity, and she would be liable to blame for knowing what she *should not have known* qua GP; in fact, she may face serious disciplinary action up to eviction from the role. Thus, doctors are occasionally struck off the medical register. But this need not be knowledge that Dr. Meyers ought not have *period*. For suppose further that the patient in question is one of Dr. Meyers' closest friends, who might easily have shared the knowledge with Dr. Meyers anyway in a non-professional context. The wrongness specifically pertains to the illicit way she exploits her GP role to gain access to personal data.

That's not all. When *S* has knowledge-qua member of group *G*, *S*'s knowledge bears some relevance to its distinctive epistemic life, but *S* is also under an obligation to bring that knowledge to bear to help achieve the objectives of *G*. It's knowledge at the service of *G* which, in the right circumstances, *ought* to be fed into its deliberations, decision-making or guide joint action. For, to repeat, part of the functional relations *S* instantiates when filling a role in a structured group involves transmitting, acting on, or otherwise deploying their knowledge-qua as and when required by that role. If James possessed knowledge relevant to the Library Committee, but inexcusably kept it strictly to himself even though his role of Treasurer demanded that it be contributed to some joint enterprise, he would perform poorly in it and consequently be held accountable; in fact, such recurrent neglectful or deceptive behaviour may compromise his role occupancy by actively working against the Committee.

If, for example, we adopt a *distinction* between *reliable cognitive faculties*, e.g., perception, reasoning, and memory, and *cultivated character traits*, e.g., conscientiousness, humility, and open-mindedness, we can separate epistemic assessments from the places-are-offices perspective into two such components.[35] By way of illustration, take again Liz who is currently the chairperson of our Library Committee. Taking the places-are-offices perspective would involve evaluating how well she manifests her *faculty virtues*, e.g., how accurate and comprehensive are the instructions she gives the secretary on spending the funds? And which *trait virtues* would she display in that role, e.g., does she exercise due diligence and even-handedness when dealing with the Committee funds?

Moving on to the *places-are-objects* perspective, reflect first that since only occupiers of roles possess knowledge, treating roles as objects of epistemic assessment isn't a matter of assessing roles as subjects of knowledge. Instead, it involves an

35. See Turri, Alfano, & Greco (2021) for an overview of the nature of intellectual virtues.

assessment of how particular roles, as defined by their functional relations to other roles, contribute towards knowledge of the group of which they are part of its structure. One question is: are the specific functional relations that characterise a certain role conducive to group knowledge, which may be a matter of fit with the wider group structure? Take again our Library Committee as having a well-defined organizational structure: the treasurer prepares the budget, which is then signed off by the chairperson before instructing the secretary to spend the funds. In that case, those three need adequate lines of communication and decision-making processes to ensure the Committee continually has the requisite knowledge to inform its joint action. The role of treasurer, for instance, can then be evaluated in terms of how effectively its functional relations contribute to disseminating knowledge within (and beyond) the Committee, and feeding it into group-level deliberations.

And by extension, the distinction between faculty- and trait-virtues is applicable to the functional relations that constitute the roles in group structures in order to evaluate their fitness for purpose. Are the relations characteristic of a given role adequate for information to be correctly communicated with other role occupiers in a timely fashion? Do they make for reliable sharing of knowledge of best practice? And do those relations, or indeed the entire group structure, manifest virtuous traits, e.g., do they tolerate rather than discourage dissenting points of view in their decision-making processes? Do they facilitate meticulous and unbiased inquiries? The key is here whether the roles, and the structures within which they are situated, themselves exhibit such epistemic virtues, rather than any individuals occupying those roles.

Let's finally turn to the *function* of knowledge-qua. Craig famously developed an elaborate *genealogical* account of the concept of knowledge, according to which its sole function is to flag "approved sources of information" (1990: 11).[36] His story begins with our ancestors in a state-of-nature having a *proto-concept* of knowledge which displays a number of subjective features to do with the epistemic needs of inter-dependent speakers in the community. Through a process of *objectification*, which is a kind of social-historical narrative rather than an actual historical thesis, these features are then stripped away, thus arriving at our familiar concept of knowledge (1990: 90–91). Some of the key differences are that, unlike the successor concept of knowledge, proto-knowledge is tied to testimony, is indexed to the abilities and needs of specific individuals, can only be ascribed to others, and is compatible with epistemic luck.[37] The basic idea is that we each as epistemic consumers (or "inquirers") have a salient need for the truth to successfully navigate the world. But as we are limited in terms of our available

36. To be clear, Craig's view (1990: 11) concerns the function of the concept of knowledge, rather than the pragmatics of knowledge ascriptions or the functional properties of the state of knowledge.

37. Craig (1990: 90). See also Kelp (2011) and Kusch & McKenna (2020) for discussion.

cognitive resources, we must rely on others ("informants") for information we need to succeed in our pursuits but cannot gather ourselves. The problem is others vary hugely in their skills and talent, and so the question is how we identify and discern those on whom we should rely for such information. How do we separate good from bad informants? The introduced concept of knowledge is precisely such marker of "good" or "approved" information.

We shall not delve further into the details here, but instead explore how the concept of knowledge-qua could serve to flag good or approved informants. Obviously, the concept of knowledge-qua is a term of art with little currency in folk epistemology, but given the equivalence in KNOWLEDGE-QUA, we can instead speak of an individual under a description as having knowledge (*simpliciter*), where that description picks out the role that the individual plays. Our thesis is then that some of the (fundamental and universal) salient epistemic needs which Craig's genealogy concerns can be catered to by knowledge-qua attributions. To wit, knowledge-qua *reintroduces* some of the social (or subjective) features of proto-knowledge, such as that the particular circumstances of the inquirer, or the social structures within which the informant is embedded, do matter. We can easily imagine cases where an informant occupies a role of which the functional relations require her not only to tell the truth on the question to which the inquirer needs an answer, but for her answers to also to be detectable as likely enough for the inquirer's concerns to be right, and the channels of communication between them to be open and accessible (1990, 85). Since individuals don't wear their knowledge on their sleeve, the question is, how do those with epistemic needs identify reliable informants as such? In particular, how do laypeople identify trustworthy experts in the right areas?

This is where knowledge-qua emerges, in that the role-identifying description is often reliably associated, through convention or practice in the epistemic community, with a *marked* source of knowledge. Epistemic consumers can reasonably expect occupiers of various, socially recognised or institutionally established roles to possess the information they need, in a reliable and accessible fashion.[38] For example, the Treasurer of the Library Committee is the go-to person for knowledge of available funds for new textbooks, as that role is widely

38. Part of what explains why such expectations are reasonable is that knowledge-qua role occupancy is underwritten by "properly constituted" epistemic authorities, i.e., where, following Levy (2007: 188), authorities are so constituted when consisting "in a distributed network of agents, trained in assessing knowledge claims, who make their evidence and processes available to scrutiny, within and beyond the network." There is a further question, beyond the scope of this paper, of how to respond to epistemically authoritative testimony. Following Zagzebski (2013: 298), we must always defer to such testimony: "[t]he fact that the authority has a belief *p* is a reason for me to believe *p* that replaces my other reasons relevant to believing *p*." According to Lackey (2018: 239) we should base our beliefs on the total evidence we possess: "the testimony of experts should always be regarded as a piece of evidence to be weighed with the other relevant evidence we have on the matter."

detectable within the university community as a reliable and accessible source of information, attuned to such inquiry-specific matters. The same is true of many professional roles in their respective areas of expertise, often accredited, certified, or otherwise approved, by professional associations or regulatory bodies, e.g., accountants are chartered, solicitors are licenced to practice law.[39]

Importantly, for an inquirer to know that the *F* (probably) knows whether *p*, where *p* is a true answer to the question that needs answered, is not to know who the *F* is who has that knowledge. The latter is often irrelevant. All an inquirer needs to know is how to readily identify the *F* in order to satisfy their epistemic need. For an inquirer knows, or is entitled to assume, that whoever the *F* is, that informant can be reasonably expected (but not guaranteed) to know whether *p* qua occupant of the role that 'the *F*' picks out. In that sense, the flagging of knowledge-qua provides a tailored shortcut for inquirers to reliably satisfy their epistemic needs.

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39. We can think of these descriptions as expressing Craig's (1990: 25, 135) "indicator-properties," which makes the individuals picked out being detectable by the inquirer as a good informant, because those properties are correlated with believing and telling the truth.

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