First-Person Plural Indexicals

Robert J. Stainton

Western University

Arthur Sullivan

Memorial University of Newfoundland

Abstract

This is a study of an under-developed topic in philosophy of language, namely first-person plural pronouns ('we', 'us', etc.) Richard Vallée has made very important progress by identifying crucial desiderata and putting forward an ingenious proposal about 'we' which addresses them. We contend that, despite this impressive progress, he makes some missteps, both omissions and errors; furthermore, his proposal appears implausible as a personal-level psychological story. We thus sketch an alternative approach to the semantics of the first-person plural indexical which, though it builds on Vallée's important work, departs substantially from it.

Keywords

first-person; pronouns; plural pronouns; Richard Vallée; 'we'

1 Introduction

1.1 Aims and game plan

Our topic is the semantics of first-person plural pronouns. The discussion is primarily about the nominative ('we'); we assume, but don't argue, that it also applies, *mutatis mutandis*, to the related grammatical cases ('us', 'our'). Our main discussant in this endeavour is Richard Vallée, whose papers "Who are we?" (1996 [2018]) and "Talking about us" (2009 [2018])

together provide the most sustained and penetrating philosophical analysis to date of first-person plural indexicals.[1] Vallée's work is ground-breaking—he discovers surprising and intriguing complexity, and identifies important enduring desiderata for a satisfactory account.

Immediately below we will highlight some of the reasons why this topic is distinctive, important, and yet under-developed. Part 2 then gives an exposition of Vallée's innovative work on the semantics of 'we'. Part 3 discusses some of the problems we detect in his theory, despite the progress achieved. Part 4 sketches our own approach to 'we', which builds on Vallée's work.

1.2   Why 'we'?

An initial way to frame what is fascinating about 'we' is as a distinctive combination of three notions, each of which is independently intriguing and philosophically important:

- the first-person perspective (e.g., '*I*')

- indexicality (e.g., '*now*', '*this*')

- plural reference (e.g., 'It looks like *those birds* are back again')[2]

The prevalent implicit presumption may be that 'we' does not raise any distinctive complications which are not already engaged in the fairly extensive literature on those three topics. One of the original contributions of Vallée 1996 [2018] is to shatter this presumption.[3] In fact, the meaning of 'we' is not a straightforward overlap of these categories. 'We' is not simply *The referent of 'I' plus some group*. Vallée notes, for instance: "If I say 'We went to Paris last year', I am not merely asserting that I and at least one other person in the world went there …" (1996 [2018]: 12). Nor is the meaning simply *A group containing the referent of 'I'*: there are obviously a plethora of distinct groups containing the speaker, the vast majority of which are irrelevant to a given 'we' utterance. In the parallel second- and third-person

---

[1] All page references herein are to the versions of these papers reprinted in his (2018) collection, wherein they form an integral part of a comprehensive approach to the philosophy of language.

[2] For discussion and references to some important prior work on these topics, see Vallée 1996 [2018]: 2–4, 23.

[3] Nunberg 1993: §2 contains one of the few philosophy-minded discussions of the "neglected case of the first-person plural" (7) prior to Vallée's more comprehensive ones. *Cf.* Vallée 1996 [2018]: 17–8 for critical discussion of Nunberg's account.

cases ('you'/'yous', '(s)he'/'they'),[4] the plural is a straightforward counterpart of the singular (1996 [2018]: 4–9); but, not so for 'I'/'we'. The constraints relevant to determining the reference of a use of 'we' are surprisingly complex.

While an analysis of the first-person plural might initially only sound exciting to the philosopher of language, the study of 'we' involves a distinctive metaphysical perspective, with important epistemological, ethical, and political dimensions. Some sort of collective is invoked whenever 'we' is used. Therefore, the present project ties into some wide-ranging broader questions, including but not limited to: What exactly is a collective identity? What is the difference between me knowing things and us knowing things? Are notions such as properly collective action and collective culpability coherent; if so, how are these significantly different from a multiplicity of individual actions?[5] Notwithstanding the weight of this second motivation, our discussion will focus on the semantics of first-person plural pronouns.

2 Vallée's proposal

In 2.1, we lay out three key observations which frame Vallée's account; then 2.2 explicates its components. In 2.3, we turn to how Vallée's account handles the observations.

2.1 Vallée's three key observations

His guiding observations can be encapsulated as follows:

(O.i) 'We' is a directly referential first-person plural indexical;

(O.ii) However, 'we' cannot be easily subsumed into any previously familiar sub-category of devices of direct reference;

(O.iii) Furthermore, there are significant distributional contrasts between 'we' and the other, more extensively studied, first-person case of 'I'.

---

[4] We adopt Vallée's convention of reserving 'you' for the second-person singular, and marking the second-person plural as 'yous'. Where appropriate, 'he or she' will be abbreviated to '(s)he'.

[5] *Cf.* Pettit 2007, Gilbert 2013 for some important work on these sorts of questions.

To expand upon these: regarding **(O.i)**, an utterance of the form 'We are F' exhibits the "Direct Reference Theory" hallmarks of an utterance of the form 'I am F' (1996 [2018]: 2–5). As Vallée puts it:

> [T]heir referent is not given by a Fregean sense, and the subject/predicate sentences in which they occur express … propositions of the form $< , F>$ containing the referent and a property F as components. (1996 [2018]: 3)

> Specifically for utterances in which 'we' is the subject, the form is $<[,], F>$, where $[,]$ leaves room for the relevant *objects* and can be expanded to have as many places as necessary. (1996 [2018]: 5, our emphasis)

For instance, one of Vallée's examples involves a phone call that occurs at his office at the end of the day (2009 [2018]: 23). His daughter is calling, and she says:

1. We want pizza

As it happens, the speaker is Marie, who has been discussing with Claire what to have for dinner. The proposition expressed, says Vallée, involves those very individuals—just as with a case like 'Claire wants pizza'. (Parallel to Kripke's (1980: 14) thoroughly anti-Fregean analysis of the truth-conditions of 'Aristotle was fond of dogs': *no situation in which anyone but Marie and Claire want pizza can be relevant to the truth-conditions of this utterance of (1).*)

Turning to Vallée's second observation, **(O.ii)**, when it comes to the relation between the standing linguistic meaning of 'we' and what determines the reference of a token (in context), 'we' does not slot into any familiar sub-category of indexical. To illustrate, compare 'we' with 'I', 'here' and 'that'.

'I' is a "pure indexical".[6] 'Today' is another example. Vallée's gloss on this notion is that such expressions have *content-determining linguistic meanings*, which makes intentions irrelevant to determining reference (2009 [2018]: 24). 'We' doesn't work that way. To determine the reference of an utterance of 'we' requires discerning the speaker's intention. So, then: maybe 'we' functions like a demonstrative such as 'that'? This won't get very far, either, according to Vallée. For, unlike such "pure demonstratives", the referent of 'we' is

---

[6] Perry (2006: 321) calls pure indexicals "automatic", contrasting this with "discretionary". We will stick to Vallée's (2009 [2018]) terminology, in part because of the useful way he distinguishes sub-cases of discretionary indexicals.

not *fixed* by "*a simple directing intention*" (2009 [2018]: 24). 'We' is more discriminating than 'that', which can refer to anything whatsoever.

There is a kind of scale in play here, in terms of how much "determining" gets done by the type-encoded meaning of the indexical term. 'I' stands at one end of the spectrum, 'that' at the other. More vs. less discriminating content, on the one hand, stands in an inverse proportion relation to more vs. less role for the speaker's intentions in determining reference, on the other.

There could turn out to be a range of intermediate options between those two familiar points—i.e., pure indexicals ('I') vs. true demonstratives ('that'). In particular, perhaps 'we' might be bettered modelled on something familiar, already dealt with in formal semantics, but closer to the middle of the scale? What of, for instance, 'here', wherein the place is indexed to the context of utterance, but the extent depends on speaker's intentions? With 'I like it here', e.g., the referent of 'here' could be a chair, a room, a building, a city, a country, etc. Might 'we' work like that? Then again, not exactly. Cases like 'here' and 'now' involve what Vallée terms a "*referent-constraining descriptive meaning*" which imposes limits on the intentions (2009 [2018]: 27). But, he points out, 'we' does not exhibit that degree of constraining—there's no specific condition to which the relevant group of people must conform.[7] Seemingly, any motley assortment of people which the speaker chooses can be the referent of 'we'.

So, when it comes to relations between standing meaning and reference (in context), while less constrained than 'here', which is itself less constrained than 'I', 'we' is more constrained than 'that'. In Vallée's terms, there isn't "determining", or "constraining", but there also isn't mere "fixing by directing intentions" either. And, as far as directly referential indexical terms go, those are the familiar options.

---

[7] There is one obvious potential exception: "when I use 'we', I cannot fail to talk about myself" (Vallée 1996 [2018]: 10). This matter will be discussed below in 3.2.

content-determining linguistic meanings	*referent-constraining descriptive meaning*[8]	*?*	*referent fixed by a simple direction*
pure (automatic) indexical—'I', 'today'	locative indexicals—'here', 'now'	'we'	pure demonstratives—'that', 'this'

Table 1: *The relations between standing meaning and reference (in context) scale for the varieties of indexical term*

These are not exhaustive options, but familiar points on a spectrum—from on the one end, meaning-determines-reference, towards on the other hand, intentions-determine-reference.[9] The core point is that Valleé argues that 'we' does not fit into any previously familiar sub-category.

Finally, **(Oiii)**. Despite several evident 'I'/'we' similarities (1996 [2018]: 1, 9–12), and the relevant consideration that 'you'/'yous' and '(s)he'/'they' are close counterparts (1996 [2018]: 4–9), Vallée's third guiding observation is that there are some significant syntactico-semantic discrepancies between 'I' and 'we'. In particular, unlike 'I', 'we' has non-deictic uses (i.e., in which the reference depends on linguistic antecedents). 'We' is bindable, whether within the scope of c-command (as in (2a–b)) or outside it (as in Partee's (3a), or Vallée's (3b)):

---

[8] As for the cases of 'you' and '(s)he', Vallée (1996 [2016]: 6–7) categorizes them as much more like 'that' than like 'I'; we take this to be a function of just using the two bifurcated categories of 'pure indexical'/'true demonstrative'. There are on our view (which in fact owes much to Vallée's work) cases that fall between those two sorts. On this table, '(s)he' and 'you' would turn out relevantly similar to 'here'. They would still be distinct from 'we' for the reasons we are in the process of cataloguing. Both impose a more discriminating constraint on the reference than 'we' does; albeit one that fails to determine reference automatically.

[9] At points below, we avail ourselves of Bach's (2005) distinction between "narrow context" vs. "broad context". Narrow context consists of certain specific matters of objective fact on which the determination of the reference of certain specific context-sensitive expressions depend (e.g., Who is speaking? Where? When?) Items that are specified as parameters in a Kaplanian LD structure (1977: 541 *ff*) are paradigmatic elements of narrow context; this reflects the notion that the meaning of a pure indexical is a function from narrow context to a content. Broad context is much more diverse and heterogeneous, comprising "the information that the speaker exploits to make what she means evident to the hearer, and, if communication is to succeed, that the hearer takes into account …" (Bach 2005: 18). There is no general short-list of obvious parameters here, uniform across contexts; and it would not be very discriminating to characterize the semantics of any specific expression as 'a function from broad context to content'.

2a. $[_S[_{NP}$ Each student][believes that we are meeting at two$]]^{10}$

2b. *A*: None of you is loved by anyone

　　B: Not so! $[_S[_{NP}$ Our own mothers][love us$]]$

3a. $[_S$ Whenever $[_S[_{NP}$ a pianist comes to visit$]][_S$ we play a duet$]]$

3b. A man called that day $[_S[_{NP}$ We][met later in a bar$]]$

Anaphoric co-reference to a noun phrase is easy too:

4a. [Jaime$_1$ and I$_2$] love swimming. We$_{1,2}$ go to the public pool every Saturday

4b. [The teacher$_1$] believed that we$_{1,2}$ were having a nice chat

Vallée (1996 [2018]: 13) holds that 'I' cannot be bound or anaphoric precisely because it is a pure indexical—given a use in context, the referent is automatic. With 'we', this is not so.

2.2   Vallée's account

Hereafter, we frame Vallée's groundbreaking work on 'we' via the three foregoing guiding observations. How to explain them? We will factor Vallée's proposal into two major components and discuss them in turn. They are quite separable, and hence rejecting one could leave the other standing.

　　The first involves treating 'we' as "a placeholder for a combination of" personal pronouns (1996 [2018]: 16, 2009 [2018]: 29). Here is Vallée's proposed list of "the available readings of a 'we' utterance":

5. *Vallée's List of Readings*

　　　a) 'I and you'
　　　b) 'I and you and (s)he'
　　　c) 'I and you and they'
　　　d) 'I and yous'
　　　e) 'I and yous and (s)he'

---

[10] We opt for old-fashioned bracketing and category labels; more refined details will not matter.

f) 'I and yous and they'

g) 'I and (s)he'

h) 'I and they'

This is an innovative means of explaining what is distinctive about 'we'. With (1), for instance, given the context described above, the intended "reading" of 'We want pizza' is given by sentence (6):

6. [I and (s)he] want pizza

The proposition expressed, given the context, is thus:

7. Want <[Marie, Claire], pizza>

Sentence (1) can, of course, also be used with any of the other "readings" from the (a–h) list, to express a variety of other propositions. (This is not to be confused with a case of ambiguity or of vagueness, as Vallée explains and we will shortly expand upon.)

The second major component is a Perry (2001 [2012])-inspired semantic framework into which Vallée (2009 [2018]) integrates this approach.[11] Vallée (2018) frames this as something of a case of improved reflective equilibrium. Perry's framework has significant things to add to Vallée's (1996 [2018]) original theory of 'we'; meanwhile, Vallée's (2009 [2018]) theory of 'we' constitutes a considerable addition and a confirmation of its explanatory powers. Perry styles his framework as "reflexive-referential" because the driving motivation is that if the familiar old notion of *referential* propositional content were to be supplemented with certain *reflexive* contents, this would yield explanatory riches. Vallée concurs, but prefers to call the framework "*pluri-propositionalism*", in the following sense: "…each utterance of a sentence determines many … contents, depending on what is taken into account…" (2018: ix). What makes some of these contents reflexive is that they are about the utterance itself. Thus, on Vallée's view, 'we' is shorthand for pronoun-compounds, and each pronoun has an utterance-referencing content.

As Perry highlights—and as is no accident—the multiple levels of content are aptly illustrated with a simple case of indexicality.[12] Keeping with our example, consider:

---

[11] As much as possible, we try to steer clear of questions as to whether or how well Vallée gets Perry correct, focusing instead on an exposition of Vallée's Perry-inspired point of view.

[12] As Perry (2006: 315, 2012: 10–2) discusses, the connection between indexicality and reflexivity is a point commonly attributed to Reichenbach (1947).

8. I want pizza

Vallée would identify three levels attaching to an utterance of (8):

[1: M] The *linguistic meaning* of the type 'I want pizza' is an instruction or rule, something like: Find the speaker S of utterance u; find the time t of u; understand the speaker to be saying about S that S wants pizza at time t.

[2: C] The *reflexive content* of a given, particular, utterance u_1 of 'I want pizza' is that the speaker S_1 of u_1 wants pizza at the (suitably extensive) time t_1 of u_1.

[3: D] The *directly referential*, "official", truth conditions of the utterance u_1 are determined once the hearer fills in the pertinent details and thus identifies the (non-reflexive) singular proposition which is being stated.

The first level of meaning is not truth evaluable precisely because it is an imperative (Perry 2012: 23–4).[13] Next, **[2: C]** can be reached given only knowledge of standing type-meaning and knowledge of the identity of the utterance. It does not require, e.g., knowing who S happens to be or when t is. The last, **[3: D]**, captures the good old referential contents of Direct Reference theory:

9. Want< ☻ , pizza>

That will do, for now, as a brief introduction to reflexive-referential pluri-propositionalism. Much has been written about the framework's potential virtues and weaknesses; it is outside the scope of our present mandate to sort that out.[14] Our focus is narrower: How does Vallée apply it to 'We want pizza'?

In terms of its **[1: M]** *linguistic meaning*, (1) does not have a simple instruction comparable to that found in 'I want pizza', or even 'They want pizza'. It exhibits more complexity.[15]

---

[13] "From [Perry's pluripropositional] point of view, the conventional linguistic meaning of a lexical item understood as a type is a rule that determines the propositional component expressed by an utterance of that item. Meaning is not propositional. … It determines a proposition semantically carried by an utterance of the sentence. A proposition … is a truth-evaluable abstract entity, and meaning is not" (Vallée 2010 [2018]: 76).

[14] For starters, consider Reimer 2002, O'Rourke & Washington (eds.) 2007, Clapp 2009, Korta & Perry 2011, Newen & van Riell (eds.) 2012.

[15] Both Nunberg (1993) and Korta (2016) also argue that 'we' essentially involves "in principle a two-stage process of interpretation" (Nunberg 1993: 8).

The rule will be: First find the relevant one from the (5a–h) list of available readings; then apply the appropriate pluri-propositionalist instructions to it. From here, the **[2: C]** *reflexive content* of (1) merely requires knowledge of the identity of the utterance. Filling in the pertinent details, the **[3: D]** *official truth conditions* will be fixed by the referential contribution of each pronoun in the resulting conjunction. So, the directly referential propositions for this particular utterance of (1) are equivalent to conjoining those of the simpler sentences 'I want pizza' with 'She wants pizza' at the context.

To come at things another way, for Vallée the point of having a word such as 'we' is essentially to reduce conversational effort: 'we' is shorthand. That is, the ultimate propositional effect is the same as uttering an item from his list (5); however, 'we' is easier to pronounce and parse than, say:

   10. $[_{NP}[[\text{I }]$ and she$]$ and $\dots]$ want pizza

Before turning to how this explanatory apparatus handles Vallée's three empirical observations, let us expand upon the view by distinguishing it from two nearby notions, viz., (i) that 'we' has a Kaplanesque character and (ii) that 'we' is lexically ambiguous.

The many specific little ways in which Vallée's account of 'we' includes improvements upon a Kaplan-style logic of demonstratives is a theme threading throughout this essay. Specifically, and for instance, here are two fundamental differences between Vallée's account of 'we' and a Kaplan (1977)-style account. One is the combinatorial-complexity aspect: the meaning of 'we' chez Vallée is not a straightforward function from contexts to contents, because the relevant instruction invokes other pronouns. The other difference pertains to a guiding motivation for the pluri-propositionalist framework. Vallée (2009 [2018]: 23–4) draws a firm contrast between Kaplan's general approach to the context-sensitivity of lexical items, which is focused on sentence-types vs. Perry's (2001 [2012]) approach, which is focused on concrete utterances.[16]

Turning to (ii), 'we' is not semantically equivocal for Vallée. It might appear otherwise because of the multiplicity of available readings. This, however, is misleading. There is just one rule: find the appropriate corresponding phrase in (5a–h). That single rule, which the speaker/hearer knows, is itself sufficient for semantic competence. There aren't separate ones for the various "readings" in the way that there are for 'crane' (kind of bird vs. piece of

---

[16] *Cf.* Stainton & Sullivan 2021 for more discussion of this difference of orientation, and the way in which Vallée's pluri-propositionalism brings formal semantics down to earth.

machinery) or 'to'/ 'two'/ 'too'. Nor does one learn the conjunctions on Vallée's list separately. Indeed, far from the English pronoun 'we' exhibiting various readings, the meaning of the type isn't a reading at all, let alone a multiplicity of them. Utterances are truth-evaluable; but the meaning of the type is not—it's an instruction. Thus, Vallée writes:

> I suggest that to have 'we' in one's linguistic repertoire is not to master a content-determining rule, but to know the contribution of 'we' to the reflexive contents of 'we' utterances, that is, to know the semantic contribution of any of the available readings of 'we' to the reflexive content of the utterances. *The range of readings are not assigned to 'we' as a type.* Readings are assigned to utterances and to the reflexive contents of 'we' utterances. *Each specific 'we' utterance has one single reading* and one single relevant reflexive content. (2009 [2018]: 30, our emphasis)

Fundamentally, the reason why it is wrong to hold that 'we' is ambiguous, on Vallée's view, is that 'we' doesn't have these multiple readings as a result of some sort of orthographic accident. There is nothing remotely like homonymy here, as compared with cases like 'to'/'too'/'two'. There is one overarching semantic phenomenon uniting (and determining) all the readings.[17]

2.3   How does the metalinguistic/pluripropositional apparatus handle the guiding observations?

How well does all this fit Vallée's empirical observations? Regarding **(O.i)**, each available reading on Vallée's List in (5a–h) includes 'I'; and each reading contains other indexical pronouns as well. All of these ingredient pronouns have directly referential uses. So, Vallée accounts for how 'we' functions as a direct referential indexical.

Moving on to **(O.ii)**, the second- and third-person ingredient pronouns aren't pure indexicals, and so do not have *content-determining linguistic meanings*. Nor does 'we' have the kind of *referent-constraining descriptive meanings* associated with 'here' or 'now', wherein just the extent gets "fixed" by broad context. Yet 'we' isn't as free as 'that', i.e., *fixed by a simple directing intention*. For not only 'I' but the other pronouns in (5a–h) constrain the "fixing"

---

[17] This distinctive issue of how to account for the complex semantics of 'we' without positing an ambiguity comes up again below (e.g., the discussions of collective vs. distributive 'we's in 3.1 and of the varieties of 'we'-usage in 3.2).

more than true demonstratives do. Hence, 'we' is rather unlike any other familiar device of direct reference.

Finally **(O.iii)**: though 'I' cannot be, the other pronouns in the "readings" can be used in non-deictic ways. They can be bound by quantifiers or linked back anaphorically to referring terms. Thus, Vallée also accommodates the 'I'/'we' discrepancies.

3   Critical commentary

Our main topic is the meaning of first-person plural pronouns ('we', but also 'us' and 'our'). So far, we have highlighted some intriguing features of 'we' and explained Vallée's groundbreaking account. Next up, a critique of certain details. Then, in Part 4, we will sketch a strategy of our own which builds upon his insights regarding the key theoretical desiderata. We will divide up our critiques into: 3.1 significant omissions; 3.2 questionable predictions and 3.3 psychological implausibility.

3.1   Three omissions

We begin with a tiny point. Whereas Vallée's (5a–h) list omits 'I and it', Nunberg (1993: note 8) points out—rightly, we think—that 'we' can include an 'it'. Nunberg suggests that this is possible only when the object is personified. (His example is: 'We survived the earthquake intact', where we = I + *my house*.) Even if that's correct, however, it's non-obvious that Vallée would be exculpated: 'I and it' would still need to be added to his list. What's more, *pace* Nunberg, it's unclear that personification is required. Consider: the host of a Halloween party says to Alice—'I'm thrilled that you and Beth are coming tonight. I'd love for you to wear your famous horse costume'. Alice replies:

   11. She and I wouldn't attend without it. We'll all three be there!

Does the felicity of (11) *really* require reconceptualizing the costume as an animate person? On our view, while it appears that some of the referents of 'we' must be people (or personified), it's not clear that all must be.

Moving to more serious lacunae, Vallée's list is troublingly Anglocentric. There are various languages to which it would not (immediately) apply. Consider, as examples, issues of: (i) formal registers; (ii) grammatical genders; and (iii) grammatical numbers. Many languages, including European ones like French, German, Russian, and Spanish, exhibit pronouns differentiated by level of formality: respectively, and taking the second-person

singular as our case in point, they contrast 'tu'/ 'vous', 'du'/'Sie', 'ti'/'vi', and 'vos'/'tú'/'usted'. No such items appear in (5a–h). There are languages which have grammatical genders beyond English's masculine and feminine (e.g., Czech and many Bantu languages). Even those with only two grammatical genders may have additional gender-marked pronouns beyond 'he' and 'she', including the third-nominative plurals in French ('ils' vs. 'elles') and Spanish ('ellos' vs. 'ellas'). Yet Vallée includes only 'I and they'. Again, English does not have distinct pronouns for masculine vs. feminine second person—it has only 'you'—but Korana, a Khoe language native to South Africa, has 'sats' for a male interlocutor and 'sas' for a female one (Siewierska 2013). Turning to (iii), numerous human languages have dual pronouns: e.g., Standard Arabic has 'humaa' for third person dual. In effect, 'humaa' is a "they" with exactly two referents, whereas 'homa' is a "they" for more-than-two. In light of these, the list in (5a–h) needs to be significantly expanded if it is to cover all ordinary language 'we'-talk.

Granted, these examples are far from fatal to Vallée's project. One can simply modify Vallée's list where necessary.[18] We mention these relatively minor points nonetheless because they anticipate a general methodological lesson. The problem with a listiform approach is its lack of generality: epicycles are required to cover all the bases. Much preferred, we think, would be an account of 'we' involving one general rule which applied in a non-*ad hoc* fashion.

There is a less easily skirted and more worrisome omission. Vallée's account does not apply to collective uses of 'we'. To his credit, Vallée recognizes this: the issue is flagged but not thoroughly discussed at (1996 [2018]: 19); he later says: "I did not unfortunately give

---

[18] There's another kind of linguistic diversity which may merit mention. There are languages which have more than one first person non-singular. Some Austronesian languages spoken in the Philippines, e.g., have a three-way distinction within first person non-singular pronouns very unlike anything in English (Liao 2008):

  (i)   first-person dual ([+speaker, +addressee, −plural])

  (ii) first-person plural exclusive ([+speaker, −addressee, +plural])

  (iii) first-person plural inclusive ([+speaker, +addressee, + plural])

As with 'it' and the rest, it's important that Vallée's machinery be extendible to these. Happily, we suspect it is, and hence note this as a mere "by the way". Our own approach (in Part 4) also naturally extends to such languages.

enough consideration to the important literature on collective and distributive readings of plural sentences and utterances" (2018: x). We fear, however, that a repair may be elusive. Among the reasons why this omission is important are the philosophical issues that partly motivate semantic analysis: many of the metaphysical, epistemological and ethical issues alluded to above at 1.2 are most interesting when it is not a set of "distributed individuals", but rather a unified, collective interdependent group, which is the referent of 'we'.

To expand upon the challenge, recall the rule which Vallée gives for 'I', repeated below with respect to the specific example 'I want pizza'. We can easily extrapolate from (12a) the rules for 'You want pizza' and 'She wants pizza' in (12b–c):

12. *Rules for 'I', 'You' and 'She'*

   a) **[1: M]** The *linguistic meaning* of the type 'I want pizza' is something like: Find the speaker S of utterance u; find the time t of u; understand the speaker to be saying about S that S wants pizza at time t

   b) **[1: M]** The *linguistic meaning* of the type 'You want pizza' is something like: Find the addressee A of utterance u; find the time t of u; understand the speaker to be saying about A that A wants pizza at time t

   c) **[1: M]** The *linguistic meaning* of the type 'She wants pizza' is something like: Find the salient female person F corresponding to utterance u; find the time t of u; understand the speaker to be saying about F that F wants pizza at time t

Consider, in light of (12a–c), how a treatment of collective uses might go. We'll illustrate with two new examples, understanding 'we' here as encompassing the speaker Marie, the addressee Richard and Marie's sister Claire:

13. a) We moved the piano

14. a) We encircled the fort

At first glance, no problem arises. Vallée's list provides a paraphrase for both, namely:

13. b) $[_S[_{NP}$ I and you and she] moved the piano]

14. b) $[_S[_{NP}$ I and you and she] encircled the fort]

What's more, these "translations" each permit a collective reading. The omission emerges when one attempts to derive collective propositional contents. Start with 'We moved the piano' understood collectively. The good news is that 'I moved the piano and you moved

the piano and she moved the piano' can be derived by conjunction reduction from (13b); and the rules (12 a–c) can thereafter be applied to that conjunctive sentence. That is, the following is a possible derivation:

15. a) $[_S[_{NP}$ We] moved the piano] $\rightarrow$ $[_S[_{NP}$ I and you and she] moved the piano] $\rightarrow$ [[I moved the piano] and [you moved the piano] and [she moved the piano]]

  The corresponding **[1: M]** rule is then applied to each sentence in the resulting conjunction.

The bad news is that what the triad of **[1: M]**-rules assigns are *not the desired truth-conditions of the collective reading.* Focus on the directly referential content **[3: D]**, i.e., the "official" truth conditions. (We presume similar or even more difficult issues will arise for the reflexive **[2: C]**.) The desired result should be an instance of our schema wherein the subject is (something like) a mereological sum—a genuine group jointly moving the piano:

16. *Lift* <[☻ ☻ …], piano>

But that's not what (15) yields. And no other derivation is presently available to Vallée. Looking at 'We encircled the fort', things get worse. The first step of the derivation applies, but the second cannot, because the result of conjunction reduction is semantically anomalous in this case. That (ill-formed) result would be:

17. [[I encircled the fort] and [you encircled the fort] and [she encircled the fort]]

Our claim is *not* that 'we' is *ambiguous* between distributive and collective readings. Note, for starters, that this present point exactly applies to 'yous' and 'they' as well. These plural personal pronouns always refer to a compound with parts; that's what the nominal 'we' always contributes. But there are two kinds of things which 'we' can pick out in context: something sum-like and something collective. It will be the predicate that determines whether the truth-conditions pertain to the whole referred-to compound or to its parts. That is, it's not the nominal which is in the driver's seat in terms of collective vs. distributed readings. The variation arises from the verb phrase. So, e.g., in 'We run', it is 'run' that "divides" the referent and applies the property to the parts; whereas in 'We circled the fort', the verb phrase leads to a collective reading of the *sentence*. Either way, 'we' itself gets assigned the same plurality.

The point about conjunction reduction is that, though it's still only an omission, it's an omission which requires more work than the cases of 'it', 'elles', etc. It's not a case where Vallée can just add a small addendum. The omission would be equally minor if one could

transform each nominal conjunction into a corresponding conjunction of sentences. For then, the existing Perry-style rules—i.e., the one for 'I', the one for 'you', the one for 'they', etc.—would apply to the latter. But this cannot be done for collective readings, for familiar reasons. Overcoming the omission requires **[1: M]** rules for each of the *compound nominals*. We aren't saying that Perry-style rules cannot be devised *sui generis* for all of the things like 'I and you' so as to include the collective reading. The point is that such rules aren't yet in place and would need to be added.

Summing up this section, then, Vallée faces two kind of omissions. The first has to do with pronouns which simply do not appear on his list: e.g., English's 'it', French's 'tu'/'vous' (2nd person, informal vs. formal), Arabic's 'humaa (3rd person, dual), Korana's 'sats'/'sas' (2nd person, masculine vs. feminine), etc. Here, the fix is obvious enough: add more things to (5a–h). However, this approach is methodologically unhappy because insufficiently general. With respect to the second lacuna, there is no easy fix for Vallée. That's because, to get collective readings of 'we', one needs rules which apply directly to collective nominal compounds.

3.2 Two incorrect predictions

Our first critique pertained to omissions. We turn now to the matter of incorrect predictions.

A first incorrect prediction concerns the way in which Vallée's metalinguistic approach rules out as impossible certain sorts of 'we'-like pronouns. We repeat: for every possible reading of 'we', there must be a corresponding gloss in Vallée's list. Importantly, the list is in the same language as the target sentence—supposedly, 'we' is a mere abbreviation of a longer sentence, which the speaker could have chosen, itself tractable in the pluri-propositional fashion. So, there cannot exist any plural pronoun where there is no "shorthand" equivalent within the language at issue. For instance, a female-only first-person *plural* in a language L is predicted to be impossible where there is no female-only first-person *singular* in L. This prediction of impossibility is incorrect, for Spanish has just such a pronoun. 'Nosotros' is used for male-only groups and for mixed groups. 'Nosotras', in contrast, can only be used

by a female speaker about a group whose every member is also female.[19] To spell out the difficulty, consider what the semantics of the corresponding "readings" would need to be, here (in contrast to Vallée's approach) described in an English-language gloss:

18. a) I_{female} and she

    b) I_{female} and they$_{female}$

    c) I_{female} and you$_{female}$

    Etc.

The problem is that there is no word having the meaning I_{female} in Spanish. 'Yo' is the only first-person singular and it is gender neutral. We stress: the lesson is not merely that Vallée's approach is Anglocentric in the sense that it has ignored things like Spanish's 'nosotras'. This is a distinct, and bigger, problem than 'it' or 'elles': 'nosotras' is un-Vallée-able.

Ought one simply rest content with a semantics for the English first-person plural—a semantics which cannot be extended to all naturally occurring human languages? This will immediately strike linguists as deeply unsatisfying. Philosophers should balk too, if they want to establish ties between the linguistic analysis of the first-person plural pronoun and the wide-ranging philosophical questions alluded to at the outset. For surely, that the metaphysics, epistemology, ethics, etc., of 'we' is language-relative is a complex, controversial matter, not to be settled by such minute accidents of language evolution.

Our second allegation as to an incorrect prediction on Vallée's part concerns what we will call '*we-but-not-me*' cases. Recall that every sentence in Vallee's list (5a–h) of "readings" includes the word 'I'. Vallée treats this as an advantage of his approach. As noted, he writes "when I use 'we', I cannot fail to talk about myself".[20]

---

[19] More precisely, all members of the group must be *treated* as female if only for the purposes of the conversation—as in, for instance, male actors presently dressed as women. Importantly, in such outlier cases the female 'ellas' ('they'-*female*) would be the appropriate third-person pronoun for the group members.

[20] Vallée, echoing Nunberg (1993: note 12), himself mentions in passing examples wherein the speaker is not contained within the referent of 'we' (1996 [2018]: 9*ff*)—e.g., a nurse says to a patient 'We are going to have surgery tomorrow' or a casual fan claims 'We won the Super Bowl last year'. They are set aside as unruly outliers.

Accordingly, certain sorts of utterance meanings for 'we' are predicted to be impossible according to Vallée. We, however, find utterances which run afoul of this to be prevalent—even apart from the conventionalized, idiomatic sorts to be set aside below. For example, varying an example from Korta (2016: note 18), consider the case of a coach, explaining why the team lost, saying (19) at a post-game press conference:

19. We did not shoot well enough

While the statement is quite literal, the speaker is not among those asserted to have not shot well enough. We think that these *we-but-not-me* cases merit serious attention; they should not be underplayed as "exceptions that confirm the rule" (as Korta puts it). Here are a few more examples. Rob's father-in-law, who grew up Jain, could explain:

20. I myself eat meat every day, but in general we are strict vegetarians

This is not absurd. It doesn't mean *but in general I and they are strict vegetarians*. It means something more like *but in general my group, the Jains, are strict vegetarians*. Consider also the exasperated pacifist who says:

21. I fear we will never learn that war is not the answer

The pacifist doesn't fear that *she* is among those who will never learn this.

Here, then, comes a rough-and-ready taxonomy of some of the varieties of 'we'-usage; (Wiii)–(Wv) can include sub-varieties of *we-but-not-me case*:

Wi) *Directly referential, deictic cases.* Examples include 'We want pizza', 'We went to Paris last year'. While their truth-conditional content is pretty straightforwardly <[,], F>, constraints on what exactly determines their reference turns out to be surprisingly complex.

Wii) *Bound or anaphoric (non-deictic) cases.* This disjointed category runs afoul of distinctions which matter greatly in some contexts; but not so much to us here. We are after the idea that, unlike the above cases and exactly akin to bound or anaphoric uses of '(s)he' or 'they', the reference can depend on linguistic antecedents. Examples include 'Every student believes that we are meeting at 3', 'Paul and I love swimming; we go to the pool every Saturday'.

Wiii) *Idioms.* As for a nurse saying to a patient—'We are going to have surgery tomorrow': This case strikes us as an idiomatic *faux*-'we', akin to the so-called "royal we"—where

the nurse's "we" means ['you' + an implicature], the Sovereign's "we" means ['I' + an implicature]. These are conventionally idiomatic uses of 'we', which should be set aside. Such cases are circumscribed and quite distinct from the others below.

Wiv) *Generic readings.* 'We are vegetarians' has a reading which means "In general, we are vegetarians". On that reading, the paraphrase 'The group I belong to' would be fine. And on that reading, it doesn't follow from 'We are vegetarians' that the speaker is a vegetarian. Notoriously, the truth-conditions of generics are complex and shifty—e.g., to avow that 'Birds fly' does not commit one to holding that there are no birds which do not fly.

This is what is going on with (20)—a generic, literal, non-idiomatic, we-but-not-me case. *Cf.* 'The group I belong to is vegetarian, though I am not'. So far so good for Vallée, possibly. However, Vallée is still stuck with the question of why 'They and I are vegetarians' does not share this generic reading, such that the speaker can be an exception. If the route to understanding 'we' goes: 'We are strict vegetarians' → 'I and they are vegetarians'—then the former shouldn't have readings that the latter lacks.

Wv) *Affiliated readings.* In generic readings, 'we' can be glossed as 'The group I belong to'. Thus, 'we' does still include 'I' in one important sense: 'I' is still part of the mereological sum referred to by 'we'. But in (19), the case of the coach, the speaker does not belong to the group targeted by the predicate. His usage is better paraphrased as 'The group I'm affiliated with'. This is also what is going on in the other case mentioned in note 20—the casual fan who claims 'We won the Super Bowl'.

This last sort of *we-but-not-me* case poses a more direct challenge to Vallée. Ultimately, they suggest that 'we' means not 'I + plural', but something more like *the group bearing the salient relation to the speaker*. 'We' is turning out to be a closer counterpart of 'they', as opposed to 'I'; 'we' vs. 'they' parallels the proximal vs. distal difference between 'this'/'these' vs. 'that'/'those'. ('We' is close to: *these people*; while 'they' is more like: *those people*.)

Again, none of this is to say that 'we' is ambiguous; it is yet another way in which 'we' turns out to be surprisingly complex. As in the case of the above discussion of 'collective' vs. 'distributed' readings, 'we' always refers univocally to a compound with parts; these latest '*we-but-not-me*' nuances concern the confines of what exactly can constitute that compound. There are (setting idioms aside) two kinds of counterexamples to the claim that 'we' always includes the speaker: there are ones where 'we' is used as a generic in a way that 'I and

they' can't be, and there are ones where 'we' doesn't include the speaker in the domain of predication at all.[21]

3.3   Psychological implausibility

We now turn to the pluri-propositionalist component of Vallée's account, with critiques pertaining to its reasonableness *qua* description of humans' knowledge of language. As a preliminary, we'll issue two caveats. We concede at the outset that our critiques are far from demonstrative: they appeal to what appears to be psychologically implausible at present. Cognitive science might ultimately vindicate Vallée's approach. We concede too that not all language theorists, whether linguists or philosophers, will trouble themselves about whether one's semantics is "psychologically real". Recognizing these important points, we nonetheless raise two worries.

Qua psychological theory, Vallée's view predicts that all who master 'we' store (and deploy) a very rich conceptual apparatus. Recall once more levels **[1: M]** and **[2: C]** for 'I want pizza':

[1: M]   The *linguistic meaning* of the type 'I want pizza' is an instruction or rule, something like: Find the speaker S of utterance u; find the time t of u; understand the speaker to be saying about S that S wants pizza at time t.

[2: C]   The *reflexive content* of a given, particular, utterance u_1 of 'I want pizza' is that the speaker S_1 of u_1 wants pizza at the (suitably extensive) time t_1 of u_1.

Given these, all competent users of 'I want pizza' must be able to exercise the concepts UTTERANCE and even TIME OF THIS VERY UTTERANCE. A user of 'You want pizza' must additionally have the concept ADDRESSEE(S). And so on. Many fully functioning adults, it seems to us, wouldn't grasp the first two. Many young children and people with developmental or acquired cognitive impairments would also, we suspect, have trouble with ADDRESSEE(S).

This needn't trouble theorists who can, given their background theoretical commitments, reasonably treat all this as sub-personal. Some, however, will be loath to go that route. In

---

[21] As Vallée pointed out to us, in this respect English 'we' can function somewhat like the French 'on'. 'On' can include the speaker, as in 'On s'est connus en 1984' ('We met in 1984'). But it can exclude the speaker too: 'On ne parle plus le français correct' ('People don't speak proper French anymore'), which is consistent with the speaker taking herself to do so.

particular, it may not be so easy for Vallée and other pluri-propositionalists to sidestep the issue that way, because of the motivation for their multiple levels: they are posited in order to rationalize the contrasting personal-level actions between, say, someone who hears (22a) vs. (22b) or says (23a) vs. (23b):

22. a) That man's pants are on fire

    b) Your pants are on fire

23. a) I am Richard Vallée

    b) Richard Vallée is Richard Vallée

For Vallée *et al.*, people are supposed to intend the reflexive propositions, to mean them; and hearers are supposed to believe them and make decisions in light of such beliefs.[22]

Beyond the general issue of hyper-intellectualizating, there are specific points. *Qua* psychological story, Vallée's view says that what people know when they know the meaning of 'we' is a list containing other pronouns. And when English speakers say or understand 'we', for instance, they avert to items in (5a–h). This, we think, yields improbable consequences.

It entails that processing 'we' will be considerably more psychologically taxing than processing other pronouns. There's an extra "find the right reading" step. Further, once the corresponding sentence is found, more than one pronoun therein must be processed—for instance, if 'we' encompasses the speaker, the addressee, and a salient woman, the hearer needs to access 'I', 'you' and 'she'. It would surely be a surprise if (1), understood as including Marie, Claire and Richard, involved several times the processing costs of, say, 'She wants pizza'—because the hearer must first "look up" (10) and then process each personal pronoun:

(1) We want pizza

(10) I want pizza and she wants pizza and you want pizza

The view also entails that anyone not able to cognize every nominal compound on the posited list cannot know exactly what 'we' means. (Presumably too, that anyone who cannot process a lexical item on Vallée's list will falter when processing 'we'.) Hence, for instance, an aphasic patient who lost the word 'she', or a person on the Autism Spectrum who has trouble with the second person pronoun 'you', is predicted to lack mastery of 'we'. That, we

---

[22] For a more in-depth exploration of this line of thought, see Stainton & Sullivan 2021.

think, would be very startling, and all else equal avoiding such a commitment would seem desirable.

4   An alternative

We will now sketch an alterative account of first-person plural indexical pronouns. It very much builds upon Vallée's ground-breaking work, aiming to take some of his original insights even further while avoiding various problems. Our main point here is not so much to carve out the final word on the semantics of first-person plural pronouns, as it is to emphasize and illustrate that the importance of Vallée's many discoveries is not undermined by our criticisms in Part 3.

While we will ultimately reject several specific details, the stamp of his innovative work endures. He has unearthed data and desiderata which any adequate theory must accommodate.

Our proposal treats 'we' as a familiar kind of base-level, indexical pronoun. As with the usual treatment for 'you', '(s)he', etc., 'we' is classed as a variable. Deictic uses are treated as free occurrences; bound and anaphoric readings of 'we' are available as appropriate, in standard, familiar ways. There is just one word 'we', but like any variable it can play various roles (i.e., free, bound, collective, distributed, generic, etc.)

In 4.1, we briefly outline the semantics involved in this approach to 'we'. Then, by way of summary, in 4.2 we will discuss our account in light of valuable lessons learned directly from Vallée (from Part 2) and indirectly via our criticisms (from Part 3).

4.1   A sketch of a semantics

For perspicuity, we'll build the approach up slowly, step by step. We start from a basic account of how a variable works in textbook formal semantics. Unlike a constant, a variable has a value only relative to a choice of assignment function. An assignment is a function from an index, a whole number, to an entity of type $<e>$—i.e., to an individual. For instance:

f: <1, Alina>, <2, Basia>, <3, Ceridwyn>, <4, Henri>

Hence, and taking a simple example, *Smokes*(x) isn't the right sort of thing to be true or false. Rather, at each index, *Smokes*($[[x]]^{f(i)}$) is. Holding the worldly facts constant, *Smokes*(x) can have different truth-values depending upon which whole number is the argument to the

function and what f assigns x given that input. Continuing with the example, since $f(3)$ for x is Ceridwyn then, to introduce a familiar formulism, $[[x]]^3$ = Ceridwyn (read this as: the value of x at index 3 is Ceridwyn). So, at index 3 *Smokes*($[[x]]^{f(3)}$) is true iff Ceridwyn smokes.

Next step: To model natural language, it won't do to have just one variable and its assignment function. We don't want f to be specific only to x, since there can of course be multiple pronouns involved in an utterance (e.g., 'She is taller than you, but shorter than him'). Further, a regular variable assignment won't do because they need to be cross-indexed—e.g., there are constitutive connections between what is assigned to 'we' and what is assigned to certain other pronouns. (This is another innovative point first articulated by Vallée, and a major step forward from a Kaplan-style logic of demonstratives.) The valuations need to be coordinated accordingly. Hence, we'll treat f as a two-dimensional array. One axis consists, as in the simple single-variable function, in whole numbers; but the other axis consists of the multiple variables:

Num. Indices / Variables	$i=1$	$i=2$	$i=3$	$i=4$
x	Alina	Basia	Ceridwyn	Henri
y	Basia	Ceridwyn	Dima	Alina
z	Eyob	Finn	Gustavo	Henri

Table 2.1: *Two-dimensional array assignment function f*

Given this array, an example like *Smokes*($[[y]]^{f(3)}$) & *Drinks*($[[z]]^{f(3)}$) will have a truth value, as desired. In this case, the array specifies $[[y]]^{f(3)}$ = Dima and $[[z]]^{f(3)}$ = Gustavo. (Again, read this as: the value which f assigns to y at index 3 is Dima and the value which f assigns to z at index 3 is Gustavo.) So, the formula is true iff Dima smokes and Gustavo drinks.

The next complication will be the introduction of variables whose values, given f, are not ordinary individuals. To get our eventual semantics for natural language 'we', we must allow that the values in the range can be a compound with parts. To do that, we'll posit "pluralities", (which can be understood, in context, as either distributed or collective) as potential assignments for f. This isn't an *ad hoc* introduction to handle 'we' in particular; it

is required already because of 'they' and 'yous' and the demonstratives 'those' and 'these'.[23]

Employing these three elements (i.e., an assignment *f*, an array of indices *i*, and plural variables), we can give a slightly more complex and realistic example, taking 'he', 'she', 'you' and 'they' as our sample variables. We'll call the assignment function *p* for "pronouns":

Num. Indices / Pronouns	*i=1*	*i=2*	*i=3*	*i=4*
He	Alina	Basia	Ceridwyn	Henri
She	Basia	Ceridwyn	Dima	Alina
You	Eyob	Finn	Gustavo	Henri
They	Basia & Eyob	Gustavo & Ceridwyn	Henri & Dima	Eyob & Alina

Table 2.2: *Assignment Function for p*

And so, for example, *Smokes* $([[they]]^{p(2)})$ will be true iff the plurality Gustavo & Ceridwyn smoke. Note also that this apparatus permits quantification. Consider, for example, 'Whoever Joan hires, he smokes'. This will be true iff for every index *i*, if Joan hires the value of $[[he]]^{p(i)}$ at *i*, Smokes$([[he]]^{p(i)})$ is true.

So, the model in Table 2.2 is sufficient to accommodate plural pronouns, which can function as either free or bound variables (thus capturing deictic and non-deictic usage). Still, there are many other complications required to move beyond a logic-meets-proto-English formalism towards something that more closely approximates natural languages. For one, what are in fact two different "variables" can look or sound the same, as in the non-contradictory:

24. He smokes, though he doesn't

25. You may have dessert now, but you still have to finish your vegetables first

We will thus add subscripts to the English pronouns; the variables then will be not 'he' and 'you' as in Table 2.2 but rather 'he$_1$', 'he$_2$', 'you$_1$', 'you$_2$', etc.

---

[23] For sophisticated discussions of plural variables and their philosophical implications, see, among a host of others, Boolos 1984, Yi 2005, 2006. Ours being a mere first sketch of a reworking of Vallée's approach, we omit the rich complexities of these works.

Another complication. In natural languages, there are encoded morphological constraints on appropriate assignments. For instance, an assignment for 'he', as a matter of the semantic constraints on the "variable" itself, is anomalous if the value output by the assignment function is a plurality, or an inanimate object, or a female. (Herein lies the respect, discussed in 2.1, in which 'you' and '(s)he' are relevantly similar to 'here'.) There are also connections among what is assigned to one variable and to its assignment-mate—for instance, to be felicitous, what is assigned to 'you' must be the addressee of what is assigned to 'I'. Whatever is assigned to 'we' at index i must be such that it bears the appropriate affiliation to the value assigned to 'I' at i.

Building these in, we can provide a still more realistic array for p as applied to the English pronominal system. And, at last, 'we' is included:

Num. Indices / Pronouns	$i=1$	$i=2$	$i=3$	$i=4$
I	Alina	Basia	Ceridwyn	Dima
You_1	Eyob	Finn	Gustavo	Henri
You_2	Basia	Ceridwyn	Gustavo	Alina
She_1	Finn	Alina	Martha	Eyob
She_2	Basia	Ceridwyn	Dima	Alina
They	Basia & Eyob	Gustavo & Ceridwyn	Martha & Dima	Eyob & Alina
Yous	Eyob & Ceridwy	Ceridwyn & Alina	Gustavo & Basia	Alina & Martha
We	Alina & Finn	Basia & Gustavo	Ceridwyn & Dima & Gustavo & Martha	Dima & Eyob

Table 2.3: *More Realistic Assignment Function for p*

Here comes one final step in the semantic portion of our approach to 'we'. We need to generalize beyond English, and we need to recognize that pronouns across the world's languages have twin components: (a) the restriction on the kind of entity that can be the assignment, this component varying from pronoun to pronoun; and (b) a context-sensitive or bindable bit, symbolized below as x_n, this component being shared by all pronouns.

To capture all this, we modify the example array one last time:

Num. Indices / Variables	i=1	i=2	i=3	i=4
[1st person, singular](x_1)	Alina	Basia	Ceridwyn	Dima
[3rd person, singular, masculine, Animate](x_{12})	Eyob	Finn	Gustavo	Henri
[3rd person, masculine, animate](x_{21})	Finn	Gustavo	Henri	Eyob
[3rd person, singular, feminine, inanimate](x_{26})	Basia	Ceridwyn	Dima	Alina
[3rd person, singular, inanimate](x_{27})	Buddy	Fido	Rover	Silver
[3rd person, plural](x_{29})	Basia & Eyob	Gustavo & Ceridwyn	Henri & Dima	Eyob & Alina
[2nd person, singular](x_{34})	Eyob	Finn	Gustavo	Henri
[2nd person, singular](x_{37})	Basia	Ceridwyn	Gustavo	Alina
[2nd person, plural](x_{39})	Eyob & Ceridwyn	Ceridwyn & Alina	Gustavo & Basia	Alina & Henri
[1st person, plural](x_{41})	Alina & Finn	Basia & Gustavo	Ceridwyn & Dima & Gustavo & Henri	Henri & Eyob
[1st person, plural, Fem](x_{43})	Alina & Basia & Eyob	Basia & Ceridwyn	Ceridwyn & Alina & Dima	Dima & Alina & Basia & Dima
[1st person, dual, exclusive](x_{47})	Alina & Dima	Basia & Gustavo	Ceridwyn & Eyob	Dima & Henri

Table 2.4: *Generalized Assignment Function for p*

The corresponding English expressions from top to bottom would be: 'I', 'he$_1$', 'he$_2$', 'she', 'it', 'they', 'you$_1$', 'you$_2$', 'yous', 'we'… and then 'null' and 'null'—English lacking a pronoun for either of the bottom two rows. Regarding the penultimate row, as we noted, Spanish has just such a pronoun: 'nosotras'. As for the final row, though we have mentioned languages with a dual second person, and ones with an exclusive second person, we don't know of any language having a pronoun which requires both; but the combination is possible in principle. The bottom one is included merely to highlight the logical possibility of such a row, and hence the formal generality of our approach; whether a pronoun realizing this option is actual, or even nomically possible, is a matter for empirical research, which we set aside for present restricted purposes.

4.2   Lessons learned from Vallée

By way of summary, we will work through how our approach deals with the data introduced in Parts 2 and 3. Vallée builds from his three observations:

(O.i) 'We' is a directly referential first-person plural indexical;

(O.ii) However, 'we' cannot be easily subsumed into any previously familiar sub-category among devices of direct reference;

(O.iii) O.iii Furthermore, there are significant distributional contrasts between 'we' and the other, more extensively studied, first-person case of 'I'.

(Oi) and **(Oiii)** are relatively straightforward, so let's start there. That 'we' is both plural and first-person is built into the morphological constraints in Table 2.4. *Qua* variable, 'we' can occur free; and when it does, the referent is supplied contextually. (Direct reference is explicitly built upon "the paradigm of the variable" (Kaplan 1977)). Though their reference is (partially) fixed by a "semantic rule" of some sort—in that respect, pronouns are far from "meaningless"—they only contribute the referent itself to propositional contents. As for **(O.iii)**, our alternative to Vallée's is equally consistent with the sort of binding in (26)—expanding to consider another new case—understanding 'we' therein as including the person hired, whoever that turns out to be:

26. Whoever Joan hires, we get mojitos to celebrate

The result is not, *pace* Vallée, owing to the *translation* of (26) containing a bindable variable. It's owing to 'we' itself being a variable, which can but needn't occur free.

(O.ii) is the most challenging. Recall the explanadum. There is a scale when it comes to fixing "in-context reference" with respect to how much of the work is done by standing-meaning vs. how much is done by intentions. In the case of the pronoun 'I', very little is required from the latter, because the constraints imposed by the semantics of the type are so strong. (Regardless of how hard I try, and of how delusional I am, I cannot refer to Napoleon using 'I'.) In the case of 'that', things are reversed. The challenge is to explain why 'we' occupies a middle ground.

We'll divide our own explanation in two: Why is the role of standing meaning in 'we' less than in the case of 'I'? And why is the role of broad context less than in the case of 'that'? First, then: focusing on the case of 'I', the natural idea is that [1st person] itself is what makes 'I' a "pure indexical". We think this is a mistake. Rather, it's the combination of [1st person] and [singular] which is responsible. To our minds, the move away from the most highly constrained end of our scale comes from *removing* the feature [singular] from 'I'. To come at it another way, it's a mistake to think of 'we' as 'I' + plural—as the "it's-a-mere-correlate" approach encourages. Less misleading would be to think of 'I' as 'we' + singular![24]

Second, why can't 'we' be used for any random group? Start with an underappreciated fact implicit in Vallée's papers, which all semanticists must eventually face up to: many pronouns must have their referents coordinated with the referent of 'I' (or, extending beyond English, coordinated with row [1st person, singular](x) on Table 2.4). 'You', of course, must be the addressee of the speaker. But even the referents of 'that' vs. 'this' will be contrasted in terms of their spatial relationship to the value assigned to 'I'. In our toy framework, this comes out as: admissible arrays obey pragmatic constraints in terms of the relations between the row for [1st person singular](x) and the rows for the other pronouns, down every column. 'We' is another case in point, differing in terms of what can serve as a viable 'I'-coordinated value. The constraint on 'we' derives from broad context in the sense

[24] Here's another way at the point. As a result of being marked [1st person], the descriptive content of 'we' is more constraining than that of 'they', as desired. The referent must be a group that the speaker is affiliated with, and will most typically be one that the speaker belongs to. Why is 'we' less constraining than 'I'? This is the point about the addition of the feature [singular] to 'I' as opposed to its deletion in 'we'. 'I' actually shares [1st person] with 'we', and hence also means THE GROUP (AT LEAST) AFFILIATED WITH THE SPEAKER. But, being singular, that "group" will now have to be just one individual! Who will that individual be who, because of the descriptive content of [1st person], must be "affiliated with the speaker"? The speaker herself. Thus, 'I' really is more like 'we' + singular… as opposed to 'we' being the "plural form of 'I'".

that, just as a speaker cannot be expected to be understood if she intends the hearer to use an array where the value that p assigns to 'you' at i has no connection with her role as [1st person, singular](x), she cannot expect to be understood if she intends an array wherein [1st person plural](x) is something other than a group in some salient relationship to her.

Next then to how our approach sidesteps our criticisms of Vallée's view. Vallée's treatment of 'we' in terms of his list of "shorthand" paraphrases elided certain empirical facts. The extension of 'we' can be inanimate—and, maybe, not even personified. This was the lesson of examples like

11. We'll all three be there!

with 'we' including a costume. So, as a tiny addendum, his list (5a–h) should have included 'I and it'. More pressing, there is great cross-linguistic variation in 2nd and 3rd person pronouns, whereas Vallée's list covered only English's quite limited options. Most pressing of all, and hardest to remedy, was that Vallée didn't address collective as well as distributed readings. Vallée is also committed, explicitly or otherwise, to certain predictions which we argued were incorrect. 'We', though it tends to do so, need not always include the speaker (*cf.* the exasperated pacifist's fear that we will never learn).[25] Finally, as the case of feminine 'nosotras' illustrated, the links among the kind of 'we'-type pronouns and the others in the language isn't as strict as Vallée supposes.

Here is how we handle the above. There is no morphosemantic feature [animate] on the pronoun 'we'; so, as far as the semantic constraints go, some inanimate values are allowed. Recalling, however, the coordination between [1st person, plural] and [1st person, singular], there must be a conversationally appropriate relation between the referent of 'we' and that of 'I'—where, crucially, the referent of the latter will of necessity be a speaker. As a matter of pragmatics, then, it will be very odd for the entire resulting group to be non-persons.

Our framework 'is general enough to allow for cross-linguistic variation. Unlike Vallée's treatment, we present no preset list of 'we'-readings whether tied to English or any other specific language. To clarify, we are not suggesting that pronoun variation is a "free for all".

---

[25] The possibility of the speaker not being in the extension of 'we' is reflected in Table 2.4. See in particular the assignment $p(4)$ wherein Dima is assigned to [1st person, singular] but Henri & Eyob are assigned to [1st person, plural]. (While the first-person constraint is less stringent than for 'I', still its presence explains why there is less leeway for intentions than with 'they'. Further, the assignment function, as influenced by broad context, must respect the connections among the variables—[1st, Plural](x) given p can't have some totally random group of people as its value.)

There are presumably nomic constraints on what the morphemes attaching to pronouns in human languages can be: surely, e.g., no pronoun in any language is marked as [3rd person, singular, blue] or [2nd, person, plural, ugly]. Presumably too, there are nomic constraints on the morphemic combinations: e.g., as hinted, the final row of Table 2.4, [1st person, dual, exclusive], may be not merely non-actual but impossible in human languages—a violation of Universal Grammar. That said, unlike Vallée's list, our suggestion affords enough options in terms of the meanings available, and the conventionalized connections among them, to apply broadly. In particular, that an array contains a row like the penultimate one in Table 2.4, which would correspond to the Spanish 'nosotras', need not entail that it have a row for [1st person, singular, feminine](x), i.e., a feminine-only version of 'yo'.

Turning to the existence of both distributive and collective readings, our expedient is to posit both pluralities which can be sum-like and pluralities which can be set-like. This is something of a dodge, especially as we have so little to say about either sub-variety. In our defense, there must be such things in order to capture other perfectly familiar pronouns ('they', 'y'all') and demonstratives ('those'). (Consider, for instance: 'Yous moved the piano', 'They encircled the fort'.) Thus, at least we are not introducing anything *ad hoc* to handle 'we'. We will follow the lead of present and future experts regarding how to treat various pluralities for pronouns generally and apply their treatment to 'we'.

This takes us to our final lesson. At least many language theorists will prefer a treatment of 'we' to be psychologically plausible. We do. Given the Fregean roles that reflexive-referential propositions play for Vallée, he should (and does). Now, though this is at best a reasonable conjecture, we fear that his proposal does not meet this "realist' desideratum. We gave two reasons: it requires anyone knowing the meaning of 'we' to possess hyper-intellectualized concepts (e.g., the concept TIME OF THIS VERY UTTERANCE), and it involves empirically risky claims about processing demands, acquisition, deficits, etc.

Our alternative seemingly fares better. There being no reflexive-referential propositions at work, that conceptual burden is avoided. The understanding of 'we' not going via the recovery of other pronouns, it being as "direct" as the processing of 'he' or 'you', any predictions about an alleged cognitive peculiarity are avoided too. As an example, we do not predict that losing the *word* 'ella', the Spanish translation of 'she', entails losing the *word* 'nosotras' which is [1st, plural, feminine]. (Our view would seem to predict that losing the feature [feminine] would have this effect. However, that seems an appropriately cautious and *prima facie* plausible prediction.)

One might reasonably question whether our "seemingly fares better" withstands scrutiny. We don't face the same psychological objections, but what if we face equally pressing ones?

The point is well taken. For instance, someone who understands 'we' is still predicted, on our view, to be able to cognize free and bound variables, arrays as assignments to these, both type-encoded morphosemantic features and pragmatically-enforced connections among pronouns as constraints on permissible arrays, etc. Our response is to appeal once again to *force majeure* in a way that we think Vallée cannot. Time will tell, but we maintain that our view remains superior qua psychological story because our formal machinery is required independently. Variable binding, or some other formal apparatus in the neighborhood, is ubiquitous, showing up in something as pedestrian as (27)–(28):

27. Everyone got drunk

28. Some flowers died

Similarly for assignments: as soon as the semanticist glosses (28) as $(\exists x)[\text{Flower}(x)\ \&\ \text{Died}(x)]$ she is committed to something as cognitively demanding as assignments and variable binding. As for a feature geometry for pronouns, the mere contrast among 'he', 'she' and 'those' shows that they—or again, something in the general theoretical neighborhood—are required. This regardless of how one treats 'we'. Even a role for pragmatics with respect to fixing the conversationally appropriate array is independently motivated, for wide context is what fixes domain of quantification. Take (27). Famously, a speaker can state thereby that everyone at the party got drunk, or that every student did, or that every student at the party did, and so on. So, whereas we introduce nothing not already required, Vallée does.

What's more, our account can be pitched at the sub-personal level. Again in contrast to Vallée (whose reflexive contents are charged with Fregean tasks), we are free to posit only tacit grasp of our complex rules. Comparable to the algorithms of generative grammar or the computational theory of vision, it's only the theorist who explicitly manipulates the cognitively demanding machinery. The ordinary person, *qua* rational decision-maker, does not.

5   Conclusion

To sum up the paper as a whole, this has been a study of an under-developed topic in philosophy of language: first-person plural pronouns. *Qua* linguistic phenomenon, this topic is already interesting. Further, it connects to the metaphysics of collective identity and thence to epistemology and ethics. Vallée makes very important progress. He identifies numerous crucial desiderata; he puts forward a proposal about 'we' which

actually addresses those desiderata; and he integrates the view into an independently motivated framework. We contend that, despite this impressive progress, Vallée makes some missteps: there are errors and omissions, and real questions as to its plausibility as a personal-level psychological story. Finally, we ended with a sketch of an alternative approach to the semantics of 'we' which builds constructively on Vallée's important work.

Robert J. Stainton

Western University

1151 Richmond Street

London, Ontario

Canada, N6A 5B8

rstainto@uwo.ca

Arthur Sullivan

Memorial University of Newfoundland

230 Elizabeth Avenue

St. John's, NL

Canada A1C 5S7

arthurs@mun.ca

References

Bach, Kent. 2005. "Context *ex machina*". In *Semantics vs. Pragmatics*. Z. Szabo (ed.). Oxford: Oxford University Press: 15–44.

Boolos, George. 1984. "To be is to be the value of a variable (or to be the values of some variables)". *Journal of Philosophy 81*: 430–50.

Clapp, Lenny. 2009. "Critical notice of Perry's *Reference and Reflexivity*". *Critica 41*: 147–76.

Gilbert, Margaret. 2013. *Joint Commitment: How We Make the Social World*. Oxford: Oxford University Press.

Kaplan, David. 1989. "Demonstratives". In *Themes from Kaplan*. Joseph Almog, John Perrry & Howardf Wettstein (eds.). New York & Oxford: Oxford University Press.

Korta, Kepa. 2016. "The meaning of 'us'". *Disputatio 5*: 335–61.

Korta, Kepa and John Perry. 2011. *Critical Pragmatics. An Inquiry into Reference and Communication*. Cambridge: Cambridge University Press.

Kripke, Saul A. 1980. "'Preface' to *Naming and Necessity*". In *Naming and Necessity*. Cambridge, MA: Harvard University Press.

Liao, Hsiu-chuan. 2008. "A typology of first person dual pronouns and their reconstructibility in Philippine languages". *Oceanic Linguistics 47*: 1–29.

Newen, Albert & van Riell, Raphael (eds.). 2012. *Identity, Language, and Mind: An Introduction to the Philosophy of John Perry*. CSLI Publications.

Nunberg, Geoffrey. 1993. "Indexicality and deixis". *Linguistics & Philosophy 16*: 1–43.

O'Rourke, Michael & Washingston, Corey (eds.). 2007. *Situating Semantics: Essays on the Philosophy of John Perry*. MIT Press.

Partee, Barbara H. (1989) "Binding implicit variables in quantified contexts". *Chicago Linguistic Society 25*: 342–65.

Perry, John. 2006. "Using indexicals". In *Blackwell Guide to the Philosophy of Language*. M. Devitt & R. Hanley (eds.). Oxford: Blackwell Press.

Perry, John. 2012 [2001]. *Reference and Reflexivity. 2nd edition*. Stanford: CSLI Publications.

Pettit, Philip. 2007. "Responsibility incorporated". *Ethics 117*: 171–201.

Reichenbach, Hans. 1947. *Elements of Symbolic Logic*. New York: Macmillan & Co.

Reimer, Marga. 2002. "Review of Perry's *Reference and Reflexivity*". *Notre Dame Philosophical Reviews*.

Stainton, Robert J. and Arthur Sullivan. 2021. "Critical notice of *Words and Contents*, by Richard Vallée". *Canadian Journal of Philosophy 51*(2): 143–57.

Siewierska, Anna. 2013. "Gender distinctions in independent personal pronouns". In *The World Atlas of Language Structures Online*. Dryer, Matthew S. & Haspelmath, Martin (eds.). Leipzig: Max Planck Institute for Evolutionary Anthropology. https://wals.info/chapter/44

Vallée, Richard. 1996 [2018]. "Who are we?" *Canadian Journal of Philosophy 26*: 211–30. Reprinted in Vallée 2018: 1–21.

Vallée, Richard. 2009 [2018]. "Talking about us". In *Meaning, Content and Argument. Proceedings of the ILCLI International Workshop on Semantics, Pragmatics, and Rhetoric*. L. Larrazabal & J. Zubeldia (eds.). Universidad del Pais Vasco. Reprinted in Vallée 2018: 23–43.

Vallée, Richard. 2010 [2018]. "Unarticulated comparison classes". *Pragmatics and Cognition 18*: 340–64. Reprinted in Vallée 2018: 69–94.

Vallée, Richard. 2018. *Words and Contents*. Stanford: CSLI Publications.

Yi, Byeong-Uk. (2005) "The logic and meanings of plurals: Part 1". *Journal of Philosophical Logic 34*: 459–506.

Yi, Byeong-Uk. (2006) "The logic and meanings of plurals: Part 2". *Journal of Philosophical Logic 35*: 239–88.