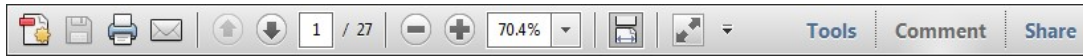
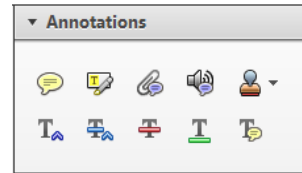


Once you have Acrobat Reader open on your computer, click on the [Comment](#) tab at the right of the toolbar:



This will open up a panel down the right side of the document. The majority of tools you will use for annotating your proof will be in the [Annotations](#) section, pictured opposite. We've picked out some of these tools below:



### 1. Replace (Ins) Tool – for replacing text.

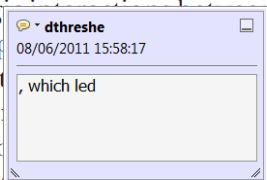


Strikes a line through text and opens up a text box where replacement text can be entered.

#### How to use it

- Highlight a word or sentence.
- Click on the [Replace \(Ins\)](#) icon in the Annotations section.
- Type the replacement text into the blue box that appears.

standard framework for the analysis of microeconomic activity. Nevertheless, it also led to the development of a number of strategic approaches. The number of competitors in an industry is that the structure of the industry is a main component. At the industry level, are externalities important? (M henceforth) we open the 'black b



### 2. Strikethrough (Del) Tool – for deleting text.



Strikes a red line through text that is to be deleted.

#### How to use it

- Highlight a word or sentence.
- Click on the [Strikethrough \(Del\)](#) icon in the Annotations section.

there is no room for extra profits as mark-ups are zero and the number of firms (net) values are not determined by market structure. Blanchard ~~and Kiyotaki~~ (1987), perfect competition in general equilibrium. The effects of aggregate demand and supply shocks in the classical framework assuming monopoly. An exogenous number of firms

### 3. Add note to text Tool – for highlighting a section to be changed to bold or italic.



Highlights text in yellow and opens up a text box where comments can be entered.

#### How to use it

- Highlight the relevant section of text.
- Click on the [Add note to text](#) icon in the Annotations section.
- Type instruction on what should be changed regarding the text into the yellow box that appears.

dynamic responses of mark-ups consistent with the VAR evidence

sation by Markov processes. The number of competitors and the impact on the structure of the sector is that the structure of the sector



### 4. Add sticky note Tool – for making notes at specific points in the text.



Marks a point in the proof where a comment needs to be highlighted.

#### How to use it

- Click on the [Add sticky note](#) icon in the Annotations section.
- Click at the point in the proof where the comment should be inserted.
- Type the comment into the yellow box that appears.

and supply shocks. Most of the time, the number of competitors and the impact on the structure of the sector is that the structure of the sector



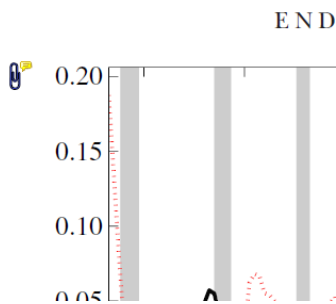
**5. Attach File Tool – for inserting large amounts of text or replacement figures.**



Inserts an icon linking to the attached file in the appropriate place in the text.

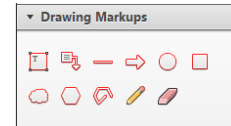
**How to use it**

- Click on the **Attach File** icon in the Annotations section.
- Click on the proof to where you'd like the attached file to be linked.
- Select the file to be attached from your computer or network.
- Select the colour and type of icon that will appear in the proof. Click OK.



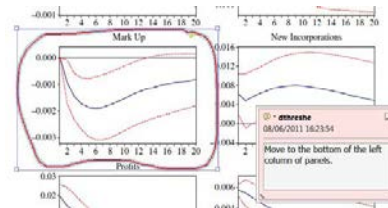
**6. Drawing Markups Tools – for drawing shapes, lines and freeform annotations on proofs and commenting on these marks.**

Allows shapes, lines and freeform annotations to be drawn on proofs and for comment to be made on these marks.



**How to use it**

- Click on one of the shapes in the Drawing Markups section.
- Click on the proof at the relevant point and draw the selected shape with the cursor.
- To add a comment to the drawn shape, move the cursor over the shape until an arrowhead appears.
- Double click on the shape and type any text in the red box that appears.



# The Elusive Case for Relationalism about the Attitudes: Reply to Rattan

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## 1. Some Background on the Measurement-Theoretic Challenge to Relationalism

Relationalists about propositional attitudes hold that propositional attitudes are relations that their possessors bear to abstract entities that express the contents of these attitudes. There continues to be much debate among relationalists as to the nature of both the entities themselves and also the relation that possessors are said to bear to them: Are these entities propositions of some sort, as the expression ‘propositional attitudes’ would suggest, or are they instead entities of an even more exotic sort such as interpreted logical forms, or maybe, as some would now have it, cognitive events or acts? This continuing uncertainty reflects just how difficult it is to find a plausible candidate capable of filling the semantic, pragmatic, and explanatory roles that these entities are presumed to play. Similar uncertainty surrounds the relations that possessors bear to these entities, though it has become fashionable of late to stress their ‘cognitive’ nature, though without ever saying much about what standing in a ‘cognitive’ relation to a proposition (or some other abstract entity) could possibly amount to. And yet, despite this uncertainty about the nature of both entity and relation, relationalists remain convinced that propositional attitudes are relations, because they believe they have good arguments for their view that do not turn on the resolution of any such uncertainties. Traditionally, their arguments have turned on what I call the ‘reading-off assumption’, viz., that the relational character of propositional attitudes can simply be read off the relational, more specifically dyadic, logical form of the predicates by which we canonically attribute them (e.g., *x believes y*). In his paper, Gurpreet Rattan attempts a different sort of argument, one that doesn’t obviously rest on the usual reading-off assumption. His arguments focus on properties of propositional attitudes themselves that, he says, require a cognitive relational construal. He describes his paper as arguing that ‘if propositional attitudes are conceived of in a robust way that emphasizes their normative and perspectival aspects, then [any viable theory of the attitudes] must incorporate, rather than dismiss, the notion of a cognition relation to a proposition’ (1)<sup>1</sup>. The question I address here is whether there is anything about what Rattan describes as the normative and perspectival aspects of propositional

<sup>1</sup> Unless otherwise noted, parenthesized numbers refer to pages in Rattan’s paper.

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1 attitudes that demands a relational account of the attitudes, specifically anything that  
2 cannot equally well be explained on measurement-theoretic accounts of the sort that I  
3 (and others) have defended, which do not incorporate or presume a cognitive relation to a  
4 proposition.<sup>2</sup> I argue that there is not. It is not possible in this short reply to lay out in  
5 any detail the measurement-theoretic account that Rattan criticizes or respond to all of  
6 his criticisms, but before turning to his arguments, I do want to emphasize certain fea-  
7 tures of this account that will figure in my reply.

## 2. Proposed Measurement-Theoretic Accounts of Propositional Attitudes

8  
9  
10 Measurement-theoretic accounts of the attitudes are in the first instance proposed construals  
11 of the *predicates* by which we canonically attribute propositional attitudes. Simplifying a  
12 great deal, the basic idea of measurement-theoretic accounts is that sentences, e.g., of  
13 the form *x believes that S* do not, as relationalists would have it, assert that *x* stands in a  
14 certain substantive relation, viz., believing, to an entity, perhaps a proposition, that is the  
15 referent of the sentence's complement clause). Rather, such sentences assert that *x* has,  
16 or is in, a belief state of which the complement clause (e.g., *that S*) is its measurement-  
17 theoretic *representative*,<sup>3</sup> in much the way that to say that *x* has a mass of 10 kilos is not  
18 to say that *x* stands in a substantive relation to the number 10, but is rather to say that *x*  
19 has a mass whose measurement-theoretic representative on the kilogram scale is the real  
20 number 10. In effect, measurement-theoretic accounts treat propositional attitude predi-  
21 cates as a kind of measure predicate, one which employs a particular representation  
22 scheme, viz., a natural language that the attributor understands, to identify the proposi-  
23 tional attitude (of the type specified by the attitude verb) being attributed, in the same  
24 sort of way that numerical measure predicates employ a representational scheme defined  
25 on a real number scale that the attributor understands.

26  
27 Strictly speaking, measurement-theoretic accounts of propositional attitude predicates  
28 don't traffic in propositions or any of the other abstract entities that relationalists have  
29 proposed as the 'objects' of the attitudes: complement clauses, which are the measure-  
30 ment-theoretic representatives of the attributed propositional attitudes, aren't referring  
31 expressions,<sup>4</sup> and a fortiori don't name or designate propositions, or any other abstract  
32 entities for that matter, though one can think of such entities as formal proposals regard-  
33 ing the relevant linguistic features of complement clauses that are exploited for the pur-  
34 pose of specifying the propositional attitude for which the complement clause is the  
35 representative.<sup>5</sup> So conceived, such entities might be thought of as specific proposals  
36 regarding the formally characterized representatives of propositional attitudes that will  
37 figure within a formal measurement-theoretic account of attitude predicates.

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38  
39 <sup>2</sup> See especially Matthews 2007, 2011.

40 <sup>3</sup> More precisely, the representative is the complement clause as uttered/articulated by the attributor and  
41 interpreted in the context of attribution, but this subtlety can be neglected for present purposes.

42 <sup>4</sup> One can see this if one considers nominal constructions (e.g., *the belief that S*), which are often paired  
43 with light verbs to form propositional attitude predicates (e.g., *has the belief that S*). There is little inclina-  
44 tion to construe the complement clause here as referring to or naming an entity of some sort.

45 <sup>5</sup> Rattan seems mistaken on just these points. Propositions, as traditionally understood, are not suitable even  
46 as a formal characterization of the measurement-theoretically relevant properties of these complement  
47 clause representatives, for basically the sorts of reasons adduced by many relationalists (see my 2007:  
161–4). These representatives are better characterized formally in linguistic terms along the lines of what I  
call 'interpreted utterance forms' (see below and my 2007: 165–9).

1 Proponents of non-relational construals of propositional attitudes find measurement-  
2 theoretic accounts of propositional attitude predicates attractive because they allow for  
3 the possibility that while these predicates are by most accounts relational in logical form,  
4 propositional attitudes themselves need not be. But it is important to emphasize that, con-  
5 trary to what Rattan assumes,<sup>6</sup> construing propositional attitude predicates as measure  
6 predicates is *fully* compatible with the empirical possibility of a relational construal of  
7 propositional attitudes, specifically one that takes propositional attitudes to be cognitively  
8 real relations to abstract entities of some sort (assuming we can make sense of such a  
9 relation). But the point that a measurement-theoretic account would emphasize is that if  
10 propositional attitude predicates are a kind of measure predicate, where the predicate's  
11 complement clause functions as the measurement-theoretic representative of the attributed  
12 attitude, then one cannot simply 'read off' the relational character of that attitude from  
13 the relational character of the predicate by which we attribute it; moreover, if proposi-  
14 tional attitudes are in fact relations of some sort, these measure predicates provide little  
15 information as to the metaphysical character of either relation or relatum.

16 Obviously, and this point will figure importantly later on in my reply to Rattan, on the  
17 assumption that propositional attitude predicates are a kind of measure predicate, if we  
18 are to understand and competently use these predicates, then we have to understand the  
19 particular representation scheme that the measurement-theoretic representatives in these  
20 predicates employ, just as we have to understand the real number scales employed by  
21 numerical measure predicates if we are to understand and competently use them. Specifi-  
22 cally, in the case of propositional attitude predicates we have to understand not simply  
23 the language in which the representatives (the complement clauses) are couched, but also  
24 our practice of talking about our inner mental lives by reference to the world around us.  
25 This is an understanding and competence that we acquire gradually in the course of  
26 learning to use these predicates.

27 It is important not to be misled, as Rattan seems to be, by talk of 'measurement' (cf.  
28 18). Such talk is simply a reflection of the historical fact that contemporary measurement  
29 theory emerged out of a reflection on the formal conditions that make possible our prac-  
30 tice of representing in numerical terms quantities of physical magnitudes. Contemporary  
31 measurement theory might better be called simply 'representation theory', or maybe  
32 better 'surrogate representation theory', in order to remind ourselves that many of the  
33 domains to which measurement theory is now applied (analytical geometry, computa-  
34 tional implementation, decision theory, and, if I'm right, propositional attitude attribution)  
35 have nothing in particular to do with measurement, understood as the practice of measur-  
36 ing, much less with numerical measurement of physical magnitudes.<sup>7</sup> Measurement  
37 theory has instead to do with schemes for *representing* the formal structure of a chosen  
38 'empirical' (i.e., represented) domain by the formal structure of another (representing)  
39 domain, usually with the aim of enabling us to use the latter to conceptualize and reason  
40 surrogatively<sup>8</sup> about the former. That we cannot make sense of the expression  
41  
42

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43 <sup>6</sup> Having described measurement-theoretic accounts as holding that propositional attitude reports 'relate think-  
44 ers to propositions [sic] in a kind of *logical specification* of psychological properties' (4), Rattan mistak-  
45 enly concludes that such accounts are committed to the view that the psychological properties so specified  
46 'in no way consist in standing in a substantive psychological or cognitive relation to a proposition' (5).

47 <sup>7</sup> See Narens 1985.

<sup>8</sup> For a discussion of surrogativity, see Matthews 2007: 134–6, 175–6.

1 'measurements of measurements' (19), at least as the term 'measurement' is used in com-  
2 mon parlance, is hardly an indictment of representational measurement theory in general  
3 and measure-theoretic accounts of propositional attitudes in particular. Nor is there any  
4 philosophical hay to be made by pointing out that propositional attitudes are not like  
5 physical magnitudes, or that the former are not like the latter in finding their representa-  
6 tion in the real numbers. The question here is whether there is anything about measure-  
7 ment theory that would preclude an account of what Rattan describes as the normative  
8 and perspective aspects of propositional attitudes, aspects that he claims require construing  
9 propositional attitudes as 'real', 'genuine' cognitive relations to propositions.

10 Rattan repeatedly disparages measurement-theoretic accounts as 'instrumentalist',  
11 'deflationary', and not 'robustly realist' about propositional attitudes, but there is nothing  
12 about such accounts that would warrant these descriptions, unless he means simply that  
13 such accounts don't endorse his favored cognitive relationalist view. Measurement-theo-  
14 retic accounts are, I suppose, in some sense metaphysically instrumentalist or deflationary  
15 about the role that they attribute to the entities that serve as formal characterizations of  
16 the complement clause representatives of propositional attitudes, since on these accounts  
17 these entities are not constituents of the attitudes themselves. But this is not enough to  
18 make measurement-theoretic accounts of propositional attitude predicates deflationary,  
19 instrumentalist, or not robustly realist about the attitudes themselves, any more than mea-  
20 surement-theoretic accounts of numerical measure predicates are deflationary, instrumen-  
21 talist, or not robustly realist about quantities of physical magnitudes. The crucial  
22 philosophical point is that measurement-theoretic accounts of attitude predicates challenge  
23 the reading-off assumption that relationalists typically fall back upon when defending  
24 their view, placing on them the burden of making a case for their view that doesn't turn  
25 on the relational nature of the predicates by which we attribute and talk about proposi-  
26 tional attitudes. To his credit, Rattan attempts to shoulder this burden by means of his  
27 arguments from the normative and perspectival aspects of propositional attitudes. Let me  
28 consider these two arguments in turn. I shall focus primarily on his argument from  
29 normativity, since his argument from perspectivity shares its crucial premises with that  
30 argument.

### 31 32 **3. Rattan's Argument from the Normativity of the Attitudes**

33 Rattan's argument from the normativity of the attitudes is basically an argument to the  
34 effect that the normativity in question requires the existence of a certain kind of second-  
35 order propositional attitude, and their existence in turn requires that the embedded first-  
36 order propositional attitude be construed as a cognitively real relation to a proposition.  
37 Rattan concedes that what he calls 'Measure Theory' may be able to handle purely first-  
38 order propositional attitudes, maybe even some second-order ones, but he argues that it  
39 can't handle certain second-order propositional attitudes without incorporating a cog-  
40 nitively real relation to a proposition: 'The sticking point for Measure Theory is the refer-  
41 ence to a proposition within a proposition' (11), more specifically to 'particular kind of  
42 reference to propositions within propositions' (12). The problem, as Rattan sees it, is that  
43 certain second-order propositional attitudes involve a particular kind of metarepresenta-  
44 tion, and that, he says, requires a 'robustly real' cognitive relational construal of the rep-  
45 resented first-order propositional attitude, viz., one that is committed to the distinct  
46 existence of both the cognitive relation specified by the propositional attitude verb and  
47



1 the proposition, purportedly specified by the complement clause, that is its object. But  
2 why is this, and why suppose, as Rattan does, that ‘Measure Theory’ is unable to provide  
3 a plausible account of such second-order propositional attitudes? Let me address these  
4 two questions in turn.

5 Rattan’s argument from normativity, he says, ‘hinges on a conception of mind as a  
6 *self-consciously normative domain*’ (13), by which he means that we are able to self-con-  
7 sciously evaluate our own mental states in the sense of being aware that we have these  
8 states, that we stand in various epistemic relations to them, and so on.<sup>9</sup> And this norma-  
9 tive self-evaluation, Rattan thinks, involves ‘a kind of *metarepresentation*, of mind to  
10 itself, in reporting one’s own attitudes to oneself in the way that they are reported in nor-  
11 mative self-evaluation’ (14). The specific kind of metarepresentation involved Rattan calls  
12 ‘preservative metarepresentation’, inasmuch as it, quoting Tyler Burge, ‘preserves the  
13 mode and content of the evaluated psychological elements’ (14). Such preservative  
14 metarepresentation, Rattan claims, ‘requires grasp or understanding of the proposition  
15 being represented or made reference to in the attitude attribution’ (14), by which he  
16 means that the self-evaluator must not only grasp which proposition is expressed by the  
17 attribution’s complement clause, but must also grasp that proposition in the terms that  
18 the self-evaluator herself would conceptualize and express this proposition.

19 Normative self-evaluation, as Rattan calls it, is clearly an aspect of our mental lives:  
20 we do have occasion to self-evaluate our propositional attitudes as to whether we have  
21 certain propositional attitudes, whether the ones we have are rational, reasonable, eviden-  
22 tially supported, and so on, and such self-evaluation clearly requires understanding the  
23 propositional attitude that is the object of evaluation in the terms that the self-evaluator,  
24 herself, would conceptualize and express that propositional attitude. Thus, for example, if  
25 I were to consider whether I believe that pigs fly (as opposed to believing, e.g., that  
26 members of the species *sus scrofa domesticus* fly), I would have to understand both what  
27 it would be for pigs to fly and what it would be to believe such a thing. But none of this  
28 provides any support for cognitive relationalism, unless when Rattan speaks of metarepre-  
29 sentation as requiring ‘a grasp or understanding of the proposition being represented or  
30 made reference to’ (14), he assumes that in such grasping or understanding there must  
31 necessarily be a distinct entity grasped or understood, viz., the proposition that pigs fly.  
32 But what is the argument for this assumption, which of course is precisely what is at  
33 issue in the debate over relationalism about the attitudes?

34 Consider Rattan’s explicit schema for his argument from normativity (15). For present  
35 purposes, I am prepared to concede the normativity of the mental (P1). I am also pre-  
36 pared to concede that self-conscious normativity requires something like (P2), under-  
37 stood, as Rattan puts it, that one’s representation of one’s mental states have to be true in  
38 both mode and content (e.g., I *believe*, and don’t suspect, know, hope, or some such that  
39 pigs fly, and what I believe is *that pigs fly*, under that very description, and not under  
40

---

41  
42 <sup>9</sup> The normativity with which Rattan is here concerned is altogether different from that which Davidson  
43 attributes to propositional attitude attribution, namely, that our interpretation of a person’s thoughts and  
44 words jointly satisfy a normative principle of charity or rationality. Contrary to what Rattan claims (9fn),  
45 Davidsonian normativity can be straightforwardly accommodated within a measurement-theoretic account  
46 of propositional attitudes predicates, if one is so inclined (which I am not), even a normativity that  
47 respects principles of normative self-evaluation: one can, as Davidson recognized, build normative princi-  
ples into the empirical axioms that a natural language representation scheme for propositional attitudes  
must satisfy.

1 some other description, e.g., that members of *sus scrofa domesticus* fly). This brings us to  
2 (P3), repeated below:

3  
4 (P3) Preservative metarepresentation is representation of a proposition that is partially  
5 constituted by *understanding the proposition* that is being represented. (15)  
6

7 (P3) is unobjectionable if it means simply that so-called ‘preservative metarepresentation’  
8 requires that we understand the propositional attitude that is the target of self-evaluation  
9 in the particular way in which we, the possessors of that attitude, conceptualize and  
10 express its content. Thus, in evaluating my belief that I would self-describe as ‘believing  
11 that pigs fly’, I must understand the content of my belief, namely the proposition that  
12 pigs fly, *as I would express it, in those my very words*; less pretentiously, without resorting  
13 to talk of propositions, I must understand my belief *as I would express it, in those*  
14 *my very words*. So far so good, but how does Rattan get from here to (P4), where he  
15 asserts that ‘understanding the proposition’ must in these normative self-evaluative con-  
16 texts be construed as ‘a cognitively real relation to a proposition’ (15). So far as I can  
17 see, there is no argument whatever for this claim in (P4), unless Rattan’s reasoning here  
18 goes something like this: (i) there are only two possible construals of propositional  
19 attitudes, either the measurement-theoretic construal, or the cognitive realist construal;  
20 but (ii) in the case of normative self-evaluation, which involves preservative metarepre-  
21 sentation, the measurement-theoretic construal is a non-starter; hence (iii) at least in  
22 these cases, (P4): ‘Measuring minds with propositions is a cognitively real relation to a  
23 proposition’ (15).

24 Even accepting for the purposes of argument premise (i), what is Rattan’s argument  
25 for (ii): why are measurement-theoretic accounts supposedly a non-starter in cases of nor-  
26 mative self-evaluation? This brings me to my second question, namely, whether as Rattan  
27 claims, ‘Measure Theory’ is unable to provide an account of such cases without buying  
28 into the idea that second-order propositional attitudes in these cases are ‘partially consti-  
29 tuted’ by cognitive relations to propositions. To answer this question, it is crucial to keep  
30 clearly in mind the distinction between propositional attitudes predicates, on the one  
31 hand, and propositional attitudes, on the other.<sup>10</sup> When we attend to this distinction, we  
32 see that there are actually two questions here: (1) whether measurement-theoretic  
33 accounts can provide an account of second-order propositional attitude predicates,  
34 including those involved in what Rattan calls ‘normative self-evaluation’, and (2) whether  
35 non-relational accounts of the sort that a measurement theorist might embrace can  
36 accommodate second-order propositional attitudes themselves, again including those  
37 involved in normative self-evaluation. The answer to both questions, so far as I can see,  
38 is ‘yes’.

39 As regards the first question, suppose we report Smith as ‘doubting (considering, etc.)  
40 that she, Smith, believes that pigs fly’. On the measurement-theoretic construal of this  
41 report, Smith is reported to be in a certain mental state of the doubting type, namely, one  
42  
43

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44 <sup>10</sup> Rattan conflates just this distinction in these second-order cases: he thinks of the attributor’s grasp or  
45 understanding of the proposition that is the content of the attributed propositional attitude as part of that  
46 *specification* of that attitude: ‘the logical specification of a mental state in an attitude report is itself a  
47 matter of being in a mental state’ (19), ‘logical specifications of mental states themselves involve mental  
states’ (ibid.).



1 whose measurement-theoretic *representative* is the complement clause ‘that she believes  
2 that pigs fly’, where in the context ‘she’ refers to Smith. There is nothing at all outré  
3 about such a measurement-theoretic representative, which contains a propositional attitude  
4 *predicate* and not, as Rattan would have it, a propositional attitude itself. What we have  
5 here is just a mundane case of recursion within the complement clause, with no apparent  
6 metaphysical import. Of course, to understand and be competent in using this representa-  
7 tive to pick out the particular state of doubt that Smith is in, one must already understand  
8 and be competent in the use of another propositional attitude predicate, namely *believes*  
9 *that pigs fly*, and understanding this latter predicate clearly requires understanding both  
10 the complement clause *that pigs fly* as well as what it is to have a belief whose represen-  
11 tative is that complement clause. Put another way, in order to conceptualize and reason  
12 about our mental states in terms of propositional attitude predicates, we have to know  
13 our way around the representational scheme that the measurement-theoretic representa-  
14 tives in these predicates employ in specifying these states. Knowing our way around this  
15 representational scheme will obviously require understanding and being competent in  
16 using the language in question to talk about the external world, specifically, to talk about  
17 states of the world in which pigs fly. But crucially it will also require mastery of the lin-  
18 guistic practice, famously described in Sellars’ myth of Jones (Sellars 1956:307-20), of  
19 using talk about our external world to conceptualize and talk about our inner mental  
20 lives, specifically our propositional attitudes. Just what one takes this latter mastery to  
21 come to will depend on just how one proposes to construe propositional attitudes them-  
22 selves, though any proposed construal is going to be severely constrained by empirical  
23 psychological and sociological facts about how we as individuals come to acquire such  
24 mastery. If, e.g., one is a dispositionalist about the attitudes, then mastery of this tech-  
25 nique will involve grasping the relevance of dispositions to attitude attributions. What it  
26 is to have a belief whose measurement-theoretic representative is the complement clause  
27 *that pigs fly* will be cashed out in terms of certain behavioral, cognitive, and affective  
28 dispositions, e.g., being disposed to assent to the assertion ‘pigs fly’, being surprised to  
29 discover that denizens of the local pig farm have never been seen flying, and so on. What  
30 it is to have a doubt whose representative is the complement clause *that she, Smith,*  
31 *believes that pigs fly* will be to have a different set of behavioral, cognitive, and affective  
32 dispositions, e.g., confidently asserting that she, Smith, won’t assent to the assertion ‘pigs  
33 fly’, being confident that she, Smith, would be surprised to see pigs flying, and so on.

34 So far there seems to be nothing special about second-order propositional attitude  
35 predicates that should trouble the proponent of a measurement-theoretic account of these  
36 predicates, and nothing special about second-order propositional attitudes themselves that  
37 should trouble the proponent of a non-relationalist, perhaps a dispositionalist, account of  
38 the attitudes. But maybe there is something special about second-order propositional atti-  
39 tudes and the predicates by which we attribute them in the context of normative self-eva-  
40 luation, something that argues for cognitive relationalism. Rattan clearly thinks there is,  
41 and it has to do with what he calls ‘preservative metarepresentation’. Measurement-theo-  
42 retic accounts, he believes, cannot satisfy the preservative requirement on the contents of  
43 the propositional attitudes under evaluation, because, he thinks, such accounts take the  
44 measurement-theoretic representatives of these attitudes to be *propositions*, and proposi-  
45 tions notoriously do not preserve the very way in which the self-evaluator conceptualizes  
46 and would express content of this propositional attitude. But this is a simple misunder-  
47 standing of measurement-theoretic accounts of propositional attitude predicates. Measurement-

1 theoretic accounts need not take propositions either as the measurement-theoretic repre-  
2 sentatives of propositional attitudes or as the proper formal characterization of the com-  
3 plement clauses that are those representatives. Indeed, as I noted above (my 3-4),  
4 propositions are untenable on both counts. Rattan overlooks the fact that my own account  
5 *explicitly rejects* propositions as unsuitable in both respects.<sup>11</sup> My reasons are basically  
6 those that have led many relationalists to reject propositions as a plausible candidate for  
7 the abstract entities to which possessors of propositional attitudes are related, reasons that  
8 focus precisely on the fact that propositions do not preserve features of the complement  
9 clause that are often essential to the ways we conceptualize and individuate propositional  
10 attitudes (see my 2007:161–4). My account instead takes the complement clauses them-  
11 selves, specifically as uttered/articulated by the attributor and interpreted in the context of  
12 attribution (see 2: fn3 above), as the measurement-theoretic representatives of attributed  
13 propositional attitudes, linguistic objects that, I argue, can be characterized for formal  
14 measurement-theoretic purposes as what I call ‘interpreted utterance forms (IUFs)’ (again,  
15 see my 2007:164–73). Once we abandon propositions in favor of something like IUFs,  
16 there is, so far as I can see, no reason to suppose that a measurement-theoretic account  
17 can’t handle the second-order propositional attitude attributions associated with normative  
18 self-evaluation, and hence no reason on those grounds to favor a cognitive relationalist  
19 construal of the propositional attitude under evaluation. But even if it turned out that  
20 ‘Measure Theory’ couldn’t handle these self-evaluative second-order propositional atti-  
21 tude attributions, how would this fact provide any argument for Rattan’s claim that  
22 understanding the proposition that expresses the content of the propositional attitude  
23 under evaluation is a matter of standing in a cognitive relation, viz., understanding or  
24 grasping, to an entity that is that proposition? I don’t see that the failure of Measure  
25 Theory would provide any support whatever.

26 Rattan’s relationalist account of the second-order propositional attitudes involved in  
27 normative self-evaluation would appear to have its own difficulties: Committed as he is  
28 to propositions as the ‘objects’ of propositional attitudes, and realizing that propositions  
29 are not suitably fine-grained to capture our practice of conceptualizing and individuating  
30 propositional attitudes in terms of the complement clauses of attitude predicates, Rattan  
31 proposes to attribute the fine-grainedness of this practice to the particular manner in  
32 which propositions are grasped or understood by their attributors. An obvious difficulty  
33 with Rattan’s proposal, one that generalizes far beyond the domain of normative self-eval-  
34 uation, is this: the particular way in which a self-evaluator conceptualizes and would  
35 express the content of the propositional attitude under evaluation depends crucially on  
36 the particular content in question. If one locates this particularity of conceptualization  
37 and expression in the cognitive relation, rather than in the ‘object’ that expresses the  
38 specific content of that specific attitude, then it is not at all clear that ‘understanding’ or  
39 ‘grasping’ will pick out a single kind of cognitive relation. There may have to be as  
40 many different cognitive relations of understanding or grasping as there are ways of con-  
41 ceptualizing and expressing the contents of particular propositional attitudes, which is

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43 <sup>11</sup> Late in his paper Rattan does acknowledge that a ‘Measure Theory’ might hold that the *that*-clauses that  
44 figure in attitude reports ‘need not be understood as proper names of the propositions that are the repre-  
45 sentatives of mental states’ (27). As I said earlier, complement clauses (e.g., *that*-clauses) are *not* the  
46 names of anything, much less propositions, and the representatives of propositional attitudes are *not*  
47 propositions. Propositions are not even the appropriate formal characterizations of the *complex* clauses  
that are the representatives of propositional attitudes.

1 why relationalists sensitive to the problem of preservative representation have invariably  
2 opted for entities more fine-grained in their linguistic properties than propositions.

#### 3 4 **4. Rattan's Argument from the Perspectival Character of Psychological** 5 **Explanations**

6 Rattan's second argument for cognitive relationalism rests on the claim that, as he puts it, 'in  
7 attributing a propositional attitude, one relates a thinker not to a proposition specified in just  
8 any way, as though the proposition were any old object, but in a way that draws on the  
9 understanding of the attributor of the very proposition to which the thinker is being related'  
10 (21). Or again, 'the real point, in a slogan, is *that understanding others is relating them to*  
11 *something that oneself understands*' (21, his emphasis). There is nothing in all this that a  
12 measurement theorist should object to, provided that we don't surreptitiously smuggle a rela-  
13 tional construal of the attitudes into this talk of propositions as 'objects' of understanding. A  
14 less freighted way of putting Rattan's point would be to say that in attributing a propositional  
15 attitude to someone, the attributor specifies the attributed attitude by a complement clause  
16 that the attributor, herself, understands. Indeed, in the case of psychological explanation, the  
17 attributor generally also specifies the attributed attitude by a complement clause that concep-  
18 tualizes and expresses the attitude in the way its possessor would. But how do these uncon-  
19 controversial points provide any support whatever for cognitive relationalism? (P4) of Rattan's  
20 explicit argument schema (22–3), viz., 'understanding a proposition is a cognitively real rela-  
21 tion to a proposition', is intended to turn the trick, but what's the argument for this bold  
22 assertion? Rattan's reasoning, as best I can make out, is that attributing propositional attitudes  
23 to others is, as he puts it, 'an expression of one's higher-order attitude'. By this I take it he  
24 means that when I attribute a propositional attitude to someone, I am myself expressing a  
25 propositional attitude to that individual's attitude (e.g., when I say, 'Smith believes that p', I  
26 am expressing my knowledge, belief, or some such that Smith believes that p), and this, Rat-  
27 tan reasons, is enough to make the case for cognitive relationalism, and for just the reasons  
28 that he gave in his argument from normativity. As Rattan puts it, 'Because we insert our-  
29 selves into intentional explanation, and understand others by relating them to something that  
30 we understand, a thinker must stand in the special relation of understanding the proposition  
31 that she is referring to in an attitude report to another' (24). But, here again, the argument  
32 fails, and for precisely the same reason as his argument from normativity: measurement-theo-  
33 retic accounts, at least tenable ones, do *not* take propositions to be either the representatives  
34 of propositional attitudes or a plausible formal characterization of those representatives, which  
35 are the complement clauses of attitude predicates. If there seems to be an argument here for  
36 cognitive relationalism, it is only because again Rattan assumes that (i) there are only two  
37 possible construals of propositional attitudes, either the measurement-theoretic construal, or  
38 the cognitive realist construal, and (ii) in the case of preservative metarepresentation, the  
39 measurement-theoretic construal is a non-starter. Whatever the plausibility of (i), Rattan has  
40 offered no argument for (ii), based as it is on a crucial misunderstanding of measurement-the-  
41 oretic accounts such as the one I offer.

#### 42 43 **5. Concluding Remarks**

44 Rattan's arguments from normativity and perspicuity are ultimately unsuccessful,  
45 depending as they do on crucial misunderstandings of measurement-theoretic account of  
46 propositional attitude predicates that I have proposed. There may be difficulties with that  
47

1 account which will not surface until the account is worked out in greater detail. But possible  
2 difficulties aside, one takeaway that one might draw from the failure of Rattan's  
3 arguments is how difficult it is going to be develop an argument against measurement-  
4 theoretic accounts and in favor of cognitive relationalist accounts that doesn't depend the  
5 usual relationalist reading-off assumption, viz., that one can read off the metaphysical  
6 character of the attitudes from the predicates by which we attribute them. The reason is  
7 that measurement-theoretic accounts have all the same resources for characterizing and  
8 individuating propositional attitudes as cognitive relationalist accounts (they lack only the  
9 metaphysical commitment to propositions as constituents of the attitudes themselves),  
10 leaving relationalists with the difficult task of making a case for their view that doesn't  
11 depend on some version of the reading-off assumption. The task is made doubly difficult  
12 by the lack of a plausible account of what it would be for the possessors of propositional  
13 attitudes to stand in a cognitive relation to propositions or some other abstract entity.<sup>12</sup>

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46 <sup>12</sup> My reply has benefited from generous comments that Frances Egan and Gurpreet Rattan offered on an  
47 earlier draft.


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