

The redundancy of the act

John Collins¹

Received: 30 January 2017 / Accepted: 20 March 2017 / Published online: 30 March 2017
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Abstract The theory that structured propositions are complex act-types has been independently articulated by Peter Hanks and Scott Soames. The present paper argues that the role of the act in such theories is supererogatory, for the individuation conditions of the act-based propositions remain wholly at the level of concepts and their formal combination, features which the traditional structured proposition theorist endorses. Thus, it is shown that the traditional problems for structured propositions are only ameliorable on the act conception by appeal to the very resources of the traditional conception. It is also shown that the act theories have no act-based account of quantification and other operator-involving relations. An elementary account of propositions is sketched, after Fodor, which retains the virtues of the traditional structural conception without falling into 'Platonism'.

Keywords Structured propositions · Unity of the proposition · Acts · Operators

1 Introduction

According to theories of structured propositions, propositions are constituted of primitive elements and a structure that combines them into truth-evaluable unities. Theories of this style differ as to what such elements and structures are, but a basic desideratum is that propositions be sufficiently fine-grained to explain the apparent sensitivity of the truth-conditions of intensional constructions to differences of choice of lexical items and grammatical organisation beyond extensional equivalence, where such

✉ John Collins
john.collins@uea.ac.uk

¹ School of Politics, Philosophy, Language and Communication, University of East Anglia, Norwich NR4 7TJ, UK

differences reflect different elements and structures of the propositions the constructions may express.¹ Unstructured accounts of propositions that treat propositions as sets of worlds or situations appear to face insuperable difficulties in this regard, precisely because they elide the contribution different elements and structures may make to the propositions expressible by sentences true in the same worlds or situations.² Structured proposition theories, however, face two problems distinctive of the general approach.³ First, what structure unites the elements that make up a proposition and what is its status *vis-à-vis* the elements it unites ('the unity problem')? Secondly, what is the source of the representational or truth-conditional properties of a proposition? Or: why should any mere structure be apt to be true ('the representational problem')? Recently, Soames (2010, 2015, and his contributions to King et al. 2014) and Hanks (2011, 2014) have presented independent but strikingly similar accounts of structured propositions designed to resolve these two outstanding problems. Their shared bold idea is that propositions are in fact certain kinds of complex act types, whose semantic properties are wholly explained by the token cognitive acts of thinkers/speakers. Hanks and Soames are dissatisfied with the primitive abstractness of traditionally conceived structured propositions. The general problem is that such accounts render propositions as cognitively alien, as if thinking were mere passive receptivity to propositions out there anyway. Still, I shall contend that the introduction of acts does not ameliorate any semantic, metaphysical, or explanatory problem that besets traditional structured proposition theories. That is, the putative power of the act is illusory, for the unity and representational problems remain unsolved by the appeal to acts: the explanatory role of the act wholly devolves upon the act being individuated by the very concepts and abstract relations to which the traditionalists help themselves. The status of such concepts and relations remains unexplained. Thus, far from the semantic properties of the abstract types being explained by their tokens, it is the tokens' semantic properties that are explained by the types, which remain *sui generis*.⁴ This conclusion is buttressed by an assessment of the failure of the act-conception to account for the role of operators that bind variables. To end, a minimal account of structured propositions will be offered that evades the alienation problem that animates the development of the act-conception. Hanks, along with numerous others (Johnson 2006, pp. 684–685; Jespersen 2017, p. 226), assumes that if cognitively alienating Platonism is out, then the only alternative is an account that grounds propositions in acts. The intent of my basic account of propositions is to show that this dichotomy is fallacious: structured

¹ The *locus classicus* of the structured approach is Russell (1903/1938). More recently, the basic idea has been pursued in various ways by, among others, Lewis (1970), Bigelow (1978), Creswell (1985), Soames (1987), and King (2007).

² For seminal accounts of unstructured propositions, see Montague (1969), Stalnaker (1976, 1984), and Barwise and Perry (1983). Of course, one particular way for propositions to be unstructured is for them to be primitives, according to which propositions not only lack a language-like structure but are also not to be identified with sets of possible worlds or situations (Bealer 1998; Merricks 2015).

³ Although structured propositions will be sufficiently fine-grained to distinguish between, say, necessary truths, they may also be *too* fine-grained in distinguishing between propositions that really should be one (Collins 2014). For present purposes, I shall ignore this worry.

⁴ See Collins (2011, pp. 149–157) for a criticism along these lines directed at the particular details of Soames's (2010) presentation of the act-conception.

propositions may be understood as the possible products of a cognitive system, which renders them as neither act types nor as Platonist entities.

It bears emphasis upfront that I shall not be concerned with positions that share the motivation of the act-conception, but arrive at somewhat different conclusions. Russell's (1912, 1992) classic multiple-relation theory, for example, eliminates propositions rather than seeks to reduce or explain them in terms of acts. Similarly, Moltmann (2003, 2013) advances a view of linguistic ontology that does without propositions. Some older neglected views also seek to explain propositional phenomena in terms of the character of thought and action at the expense of any *sui generis* content-bearing entities (see Moltmann and Textor 2017). For present purposes, such views may go in peace insofar as they are not undermined by the arguments I shall spell out against the act-conception as elaborated by Hanks and Soames (which is not to say I endorse any such views; see Sect. 7). The relevant difference here is that, rather than eliminating propositions, or otherwise accounting for propositional phenomena without assuming propositional entities, Hanks and Soames assume the existence of structured propositions and seek to explain their truth conditions in terms of token acts. It is such an explanatory project that is my target.

2 Structured propositions and their traditional woes

Propositions are tasked with three main roles: to be the objects of various mental states and speech acts (things to be believed, doubted, stated, etc.); to be the meanings of sentences (in context), or at least the contents expressible by sentences; and to be truth-evaluable and the subjects of various modalities (necessity, possibility, justification, etc.). In fulfilling these three duties, propositions are characteristically thought as *fundamental* in the sense that they are the basic content- and truth-bearers, from which sentences and mental states inherit their content/truth-evaluability. According to the traditional structural view, inherited from Frege (1892/1980, 1918/1988) and Russell (1903/1938), concomitant with these desiderata is the proposal that propositions are complexes of structured parts with mind-independent truth conditions.⁵ Thus, neither the parts of a proposition nor the relations that hold between them are psychological entities or otherwise mentally constituted or explained. This traditional picture of propositions faces two fundamental problems, as indicated in Sect. 1. In this section I shall spell out the problems as background to my argument that the act-conception does not ameliorate the problems a jot without appeal to the very resources of the traditional structural conception, at least as pursued in a Fregean function/argument approach.

⁵ Whether Frege in fact had a structural view of propositions/thoughts is highly moot. For present purposes, this scholarly issue does not matter; at any rate, Hanks and Soames treat Frege as endorsing a structural view.

2.1 The unity problem

Russell and Frege tackled an immediate problem for a structural view, *viz.*, the unity problem. Their treatments of the problem (in Russell's case, various proposals) have generated many responses and novel solutions; indeed, the 'unity problem' is best understood, I think, as a label for a range of problems sensitive to varying background assumptions rather than a unique quandary. Still, for present purposes, the unity problem can be distilled into a *narrow* and *wide direction* problem (cp., Stout 1911; Stevens 2005; King 2013; Collins 2011).

Consider a sentence such as *Frank loves Ave*. It can be used to express the proposition that Frank loves Ave, and be employed to specify the contents of agents' beliefs, hopes, expectations, and so on. It can, of course, also be true or false, depending on whether or not Frank does love Ave. Assume, then, that the proposition at hand is as depicted in (1):

(1) [FRANK, LOVE, AVE]

The constituents here are neutral proxies for whatever one thinks constituents of propositions are, and the brackets simply signal that the constituents together make up a proposition (I ignore tense, which complicates the issues but is not crucial to the present discussion—although see Sect. 5). The narrow direction problem is simply that (1) fails to specify the intended proposition, for the relations between the constituents is left undefined. In particular, the proposition that Ave loves Frank is quite distinct from our target proposition, even though the two comprise the same constituents. A common way of putting the moral here is that a proposition cannot be a mere list or aggregate, but must, minimally, distinguish between the kinds of role the relata play *vis-à-vis* the relation. Thus, in our target proposition, Frank is the lover and Ave the lovee, but (1) does not encode this. At first blush, (2) appears to offer an adequate repair that captures the two distinct propositions:

(2) a <FRANK, <LOVE, AVE>>⁶
 b <AVE, <LOVE, FRANK>>

Another problem now arises.

The narrow direction problem does not so much cast doubt on propositions being the incarnation of structures via constituents; it only raises the worry that not any old gathering together of some potential constituents will pick out a *unique* proposition, for some pairs of distinct propositions have the same constituents. Thus, the structure of a given proposition must be sufficiently fine-grained to distinguish it from any other proposition, even if all constituents are shared. The *wide direction* problem poses a deeper worry: even if the placement of the right constituents in the right structural positions succeeds in discriminating between propositions, it does not follow that

⁶ Alternatively:

(i) <<FRANK, AVE>, LOVE>

Here, we would take the relation LOVE to apply to the pair. This difference of composition is not insignificant (Hanks appears to assume this approach, whereas Soames favours the traditional currying approach—see Sect. 3). For the purposes of my argument, however, the precise form of composition does not matter (but see Ostertag 2013).

the same condition will discriminate between propositions and non-propositions, i.e., between structures that are and are not truth conditional. A *theory* of propositions should explain why certain structures are and others are not, propositions, or at least it should discriminate between the two. Of course, over an indefinite range of cases, we can distinguish between propositions and nonsense in the absence of any metaphysics or theory of propositions; perforce, we can decide to depict the propositions via some structural format and neglect the nonsense. Yet here the structures are not doing any explanatory or metaphysical work; they are merely encoding distinctions that are apparently grounded in some independent understanding or merely what we intuitively reckon to be propositional. To make the point vivid, why aren't the following propositions?

- (3) a <AVE, FRANK>
 b <LOVE, AVE>
 c <LOVE, FRANK>

For that matter, if we grant that some collection of elements are potential constituents of propositions, then what precludes any structural combination, whatever the chosen structure is, of any selection of those elements being a proposition, rather than gibberish?

Whether a structure is a proposition or gibberish can be sourced to various factors, but let's restrict ourselves to consideration of adicity, which is a necessary factor in the determination of truth-conditions and predication more generally. Consider the proposition that Bill sneezed. If we also have the potential propositional constituent SAM, why do we not have the proposition that Bill sneezed Sam?

- (4) <BILL, <SNEEZE, SAM>>⁷

Frege may be usefully read as having an answer: elements of propositions must be distinguished in terms of adicity, i.e., the kind and number of arguments with which they may compose. In our present case, SNEEZE is a 1-place concept (has adicity 1) that applies to objects, and so can form a proposition when taking an element with 0 adicity (an object), to reduce its own adicity to 0. In more simple terms, SNEEZE applies to single individuals such that the result is true iff the individual sneezes. The problem with (4), then, is that it contains one too many potential arguments of the concept SNEEZE here understood as a function from single arguments to truth values. Frege pitched such thoughts via the metaphorical nomenclature of saturation and unsaturation, over which many have usefully tarried. The underlying thought, however, is simply that constituents of propositions must be typed, and it is the type of a constituent that determines with what number and type of constituents it can combine. Thus, SNEEZE(x), to make the argument position explicit, is type <e, t> (adicity 1), which is a function from objects e (adicity 0) to truth values. In this sense, it cannot combine with two arguments. If SNEEZE were of type <e, <e, t>>, it could, but then it would be a different concept. Let me post a number of remarks to clarify what I think is crucial to the above reasoning, which will carry through when we turn to criticism of Hanks and Soames.

⁷ See note 6 for an alternative.

First, one is free to be disparaging of Frege’s metaphors, as Soames (2010) is, but Frege’s basic insight is *not* metaphorical. Thought and language has a combinatory structure insofar thought and language both feature constituent parts that are combinable in some ways but not others. Such a basic ‘grammar’ enters into an explanation of why propositions/sentences have the contents they have and why other specifiable structures are not propositions/sentences at all, because they fail to realise permissible combinatory relations. To be sure, we don’t know what the permissible combinatory structures are in general for natural language, let alone thought, but we do know that *some* such structure is required. In fact, neither Hanks nor Soames actually eschew this basic desideratum; their problem, as we shall see, is that they wrongly suppose they advance beyond it.

Secondly, the significance of type structure is not merely grammatical. *Bill sneezed Sam* is ungrammatical alright, but there is no concomitant stable thought either. One might conjure up a meaning, such as Bill making Sam sneeze, or some such, but that is not what the sentence means (it doesn’t mean anything). Relatedly, *Sam sneezed* does not mean that Sam was made to sneeze via some unspecified agent. One can, with some invention, associate a proposition with *Bill sneezed Sam*, but (4) would not thereby be rendered a proposition.

Thirdly, we shouldn’t insist that lexical items, at least, have fixed adicities, for their type combination can be highly flexible and idiosyncratic (one can, after all, sneeze a sneeze, and sneeze a peanut across the room). Still, insofar as propositions are determinate entities, then they can’t be flexible in their construal, for they *just are* the relevant construals of the semantically flexible sentence forms.

Fourthly, I do not claim that a mere appeal to types resolves the unity problem (Collins 2011). Still, some typing of constituents is *necessary* for the resolution of the wide direction problem, and so too the unity problem.

Soames and Hanks do not present the unity problem in terms of the wide direction issue, but more in terms of truth. Hanks (2014, p. 42) avers that ‘[p]roperly understood,... [unity] is the problem of making sense of how propositions have truth conditions’. Similarly, Soames (King et al. 2014, p. 32) writes:

The problem we need to solve—which neither Frege nor Russell had a way of solving—is not to find some relation born by the constituents of a proposition to one another that “holds them together” as parts of a single complex entity; the problem is to explain the intentionality of propositions.

The relevant sense of ‘intentionality’ here is truth/falsity, which is a function of predication insofar as the question of truth arises when some property is predicated of something, expressing a true proposition, if the thing has the property; a false one otherwise.

In effect, the thought shared by Hanks and Soames is that unity problems of the kind that occupied Frege and Russell are really illusory, bred of a fundamental misconception of propositions as possessing intrinsic truth conditions wholly independent of the cognitive activity of agents. This take on the unity problem is mistaken, I hope to show, precisely because the wide direction problem arises even after the illusion, as Soames and Hanks would have it, is dispelled. So, the unity problem is not just a quandary about truth, or otherwise illusory. The deep problem of unity, under the wide

direction construal, is how to specify a condition that will in-principle differentiate potential structures between the propositional and the non-propositional in a structural manner. This is a more fundamental issue than the mere question of how a structure can be true, for an account of how a given proposition can be true or false does not *eo ipso* exclude non-propositions; for that, one would need a structural condition that includes the truth-apt at the expense of the non-truth-apt. As just indicated, this is the problem with Hanks and Soames's accounts: even after we are supposed to see how propositions can be truth-apt on an act-conception, the unity problem is not dispelled (see Sect. 4). The problem of truth or representation, therefore, remains in place as an independent quandary.

2.2 The representation problem

Assume, then, that propositions have their truth conditions inherently as mind-independent structured entities consisting of parts structured so as to relate to one another in some definite way. How can such entities realise predicative structure such that they may be true? Correlatively, how can such entities render various mental states and speech acts true per their putative fundamental role? The force of these queries may be presented in two complementary ways.

First, as Soames (2010, pp. 30–31; King et al. 2014, pp. 29–30) stresses, even after we settle on some particular structure to evade the narrow direction problem, as I have presented it, one is left with a choice of structures in terms of sets, trees, graphs, *n*-tuples, and so on. Soames's point here is not that the question of the *right* structure is indeterminate (any choice from a range of structures will do), but that no structure will do, for all of the putative propositional structures fail to be intrinsically predicative, or intentional in the relevant sense: '[T]here is *nothing* inherent in such structures that makes them representational, and so capable of being true or false. Structures of this sort can't possibly be the primary bearers of intentionality' (King et al. 2014, p. 30). Similarly, Hanks (2014, pp. 54–55) avers that 'ordered sets [and other such structures] are not true or false. The basic problem here is that ordered sets are not representational, and being representational is necessary for being true or false... No entity on its own is a representation.' The problem is that if propositions are deemed to have intrinsic truth conditions wholly independent of thinkers, then we should be able to identify what aspect of structure makes them semantically evaluable. Yet while we can specify lots of different kinds of potential structure, any such structure is only predicative in light of our interpreting it in that way, which pushes the question of intentionality back onto us.

Secondly and correlatively, there is a *cognitive inheritance* problem for propositions on the 'classic' view. Our beliefs, judgements, assertions, and so on have truth conditions, which appear to be inherited from the truth conditions of the propositions they take as their objects, which have such conditions intrinsically (one's belief that *P* is true or false depending on whether *P* is true or false). This raises a problem of how a cognitive attitude or speech act inherits its semantic value from a putative *sui generis* proposition. It won't do to appeal to some relation such as *grasping* or *entertaining*, for such relations are too passive in the sense that a mere cognitive awareness

of an entity will not confer properties of the entity onto the mental state. It looks as if the thinker must *do* something. If that is so, then the door is opened to the thought that it is the actions of the thinker/speaker that are primitive *vis-à-vis* propositions, i.e., propositions inherit their semantic properties from the various acts of predication agents perform rather than conversely. This is exactly the tack taken by Hanks and Soames.

As intimated, I do think that the representation problem is real, and I shall offer no answer to it here, although I shall sketch how to accommodate the force of the problem without appeal to acts (see Sect. 7). I shall, however, argue that the problem is not ameliorated a jot by going over to an act-based conception of propositions.

3 Acts of predication

Hanks and Soames offer different accounts of propositions; my focus will be on the common factor, *viz.*, the idea that propositions are act types that inherit their semantic properties from act tokens. The crucial difference between the two accounts pertains to the content/force distinction. Soames cleaves to a traditional separation of content and force such that there is a neutral level of predication (‘entertaining’) that is invariant over differences of force, such that the same predication may occur in acts of assertion, commanding, promising, and questioning. For Hanks (2014, p. 41), this is too ‘conservative’, amounting to an incoherent concession to the traditional picture; that is, once predication is conceived of as an action, rather than a structural relation, then there can be no neutral predication, and so distinct action types, at the level of content, will constitute the differences between assertions, questionings, and so on. I shall not attempt to settle the issue of force here, although I shall argue that Soames is correct insofar as there must be a neutral conception of predication invariant across difference of mood in order to understand operator-variable relations (see Sect. 6). Such a sense of predication, however, will be seen to be a structural rather than an act-based relation. For present purposes, therefore, I am happy to endorse Hanks’s thought that *if* predication is an act, then there can be no neutral proposition; I only reject the antecedent (see Sect. 5).⁸

The unity and representation problems, at least as spun by Hanks and Soames, might give one motivation enough to reject the traditional conception of propositions. The lack of an apparent alternative, however, counterbalances the force of the problems. Hanks and Soames think otherwise, for the very problems suggest a conception of propositions immune to them. This is the act conception. To begin, consider predication.

Soames writes:

[It is an] obvious fact that predication is something that agents do. Properties don’t predicate themselves of anything; nor, unless we have it explained to us,

⁸ For a survey of the force/content distinction, see Recanati (2013). For a broader assessment of the dispute between Hanks and Soames on force, see Reiland (2013), Soames (2015), Stokke (2016), Jespersen (2017), and Recanati (2016).

do we understand what it is for a complex of which various properties are constituents to predicate one of them of the others (King et al., p. 32).

Likewise, Hanks (2014, p. 64) writes:

[P]redication [is to be] understood as a kind of action that speakers perform in making judgement and assertions. It is because we perform these acts of predication that our judgements and assertions have truth conditions.

In one respect, what is being claimed here is trivial; after all, we have the ternary verb *to predicate*, where someone predicates such and such of so and so. There are such acts. It might even be that *predicate* as a noun is deverbal. It does not follow, however, that whatever explanatory role the notion of a predicate or predication may fulfil is reducible to or otherwise explicable by predicative acts. In particular, unless one has some independent take on the relevant acts, it is unobvious how to assess claims of relative explanatory or metaphysical priority. One not unnatural thought is that predication *qua* act is intimately bound up with, perhaps even metaphysically coeval with, a conceptual competence that individuates the kind of acts that might count as predications. In this sense, the acts don't have any kind of priority, for they presuppose concepts of a certain structure that are not explicable or otherwise individuable in act terms *sans* such concepts. What the advocate of the act-based conception must do is show how the appeal to acts actually explains anything without simply presupposing the conceptual combinatory relations, which are constituted independently of any acts. If this can't be done, then talk of acts is mere talk that can be happily dropped for all the explanation it provides. I'll seek to confirm this by showing how the wide direction problem and the representation problem remain firmly in place even with acts in the picture. First, though, let's have the act-conception clearly in view.

Hanks considers a proposition to be a complex act type. Take the proposition that Bill sneezed. This will be specified as follows (ignoring tense):

(5) $\vdash \langle \text{BILL, SNEEZE} \rangle$ ⁹

As Hanks (2014, p. 23) explains, this act type is a complex because it consists of three sub-acts: (i) a *reference* to Bill; (ii) an *expression* of sneezing; and (iii) a *predication* of sneezing to Bill. Two clarificatory points. First, Hanks (ibid, p. 23, n. 2) notes that talk of an expression act is a '*façon de parler*' for our giving ourselves 'a rule or principle for sorting objects, where this rule determines the conditions under which your act of predication is correct or incorrect'. The idea is that the expression of a particular concept is not an independent act, but an aspect of the predicative acts at issue in the sense that different concepts will fix different correctness conditions (rules for being right or wrong) on the acts that feature the respective concepts (Hanks 2017). At any rate, the expression is not meant to be a neutral entertaining *à la* Soames. As we shall see, some neutrality is in fact crucial for a general understanding of predicates (Sect. 6). Secondly, the turnstile indicates predication, which is committal on Hanks's view, such that the propositions for the question (*Did Bill sneeze?*) and the imperative, (*Bill, Sneeze!*) do not involve the act of predication but the respective acts

⁹ Here and throughout, I employ a slightly different notation from Hanks, but the difference does not matter.

of questioning and commanding, which can be readily notated by a question mark and an exclamation mark respectively substituting for the turnstile in (5).

The putative explanatory work is done via a relation of inheritance from tokens to the type. Thus:

Types of acts of predication are not particular acts of predication, but this is no barrier to their sharing truth conditions with their tokens. Furthermore, the possession of truth conditions by a type is constituted by the possession of truth conditions by actual or possible tokens of that type. This is the sense in which a type of act of predication, a proposition, *inherits* truth conditions from its tokens (Hanks 2014, p. 75).

The idea, then, is that agents perform certain complex predicative acts, which have truth conditions. These are ‘the explanatory basic bearers of truth conditions’ (ibid, p. 8). The proposition such acts token inherits its truth conditions from the tokens as simply a type of act. So, the act type has truth conditions that can be realised or not, simply because its tokens have such conditions. The act type essentially serves the role of abstracting from all differences between particular acts in order to classify the tokens as being the same for a range of explanatory and taxonomic purposes (ibid., p. 29). Such sorting or classification is what Hanks (ibid., pp. 5–9) thinks concepts and types are generally for; in the present case, propositions, *qua* act types, sort disparate acts in terms of shared truth conditions. In this sense, a proposition can have truth conditions even if no agent has tokened it, for the type simply classifies the potential tokens of it, regardless of whether they are realised or not (ibid., p. 27). As on the traditional picture, propositions are mind-independent and abstract. The crucial difference is that the truth conditions of the propositions are fixed by actual or potential acts of predication, and so truth conditions are not mind-independent in the sense of being intrinsic to *sui generis* abstract objects, but are explained by our mental activity.

A range of issues arise with how the basic model Hanks presents might apply across the full spectrum of linguistic structures and the propositions they express. I think there are fundamental problems scaling up the account beyond elementary cases, especially as regards variable binding (Sect. 6). A more basic conceptual concern, however, is just how to understand the idea that a complex act consisting of sub-acts *is* a proposition that realises predication and so is truth-apt. The problem turns on an ambiguity of the presentation of the act types. Hanks (ibid., pp. 83–86) takes predication (*mutatis mutandis* for questioning and commanding) to be multi-grade in ‘targeting’ different elements to be the propositional constituents. The number and role of the elements so targeted will be determined by the type of the concept expressed in the predication. So far so Fregean, it seems. Yet, officially, as Hanks presents the account, the act type is made up not of objects (Bill, etc.) and their properties, but an act type of predication and act types of reference. This now looks like a confusion, for even granting a treatment of predication as essentially an act type, the predication ought not to apply to acts of reference, but to what such acts target, such as Bill. Hanks (ibid., p. 83) stresses that it is constitutive of predication that it has this targeting function: ‘[targeting] is a necessary aspect of any act of predication. It makes no sense to perform an act of predication that is not targeted at anything’. Right, but what is targeted in an act of predication is the very object which falls under the predicated property, not the act of

picking out that object. If one predicates sneezing of Bill, one may be said to have performed two acts—a referring to Bill and a predicating of sneezing—but one has not predicated some property to the act of referring, still less has one predicated an act of an act, whatever that might mean. To be sure, one may not be able to predicate anything of Bill without representing or referring to Bill, but such an accomplishment won't show up in the proposition or the token predicative act as an act, but as what the act is targeted at. We should, therefore, construe the propositions as depicted by Hanks's notation not so much as giving us the elements of the propositions themselves, but what such acts semantically determine. So, *a reference to Bill* cannot be a constituent of the proposition that Bill sneezes, for a reference to Bill doesn't sneeze; rather, whatever the reference to Bill picks out is what is 'sorted' as falling under whatever is expressed in the act of predicating sneezing. It now seems, then, as if (5), say, is not the proposition as such that is supposed to realise predication and be true or false, but instead the complex act that determines a proposition as a product, which, although dependent on acts for its content, is not itself a complex act type. That is to say, predication, and so truth, will apply to the result or product of applying the concept the predicative act expresses to the object the referential act determines.

It bears emphasis that on Hanks's elaboration of the constraints on how arguments are to be interpreted, the arguments as propositional constituents cannot be acts. Hanks (2014, p. 86) endorses a version of argument role assignment under a *theta criterion*. On its classic rendering due to Chomsky (1981), the criterion says that there is a 1:1 correspondence between the syntactic positions a verb projects (subject and complements) and the roles for participants of the event the verb specifies (*mutatis mutandis* for adjectives and nominals). Thus, *sneeze* assigns one AGENT role to its single subject argument; *admire* assigns AGENT and THEME roles to its subject and object, respectively. The predicative content of the criterion is that there will be grammatical and semantic anomaly with, say, more or less arguments projected than there are roles for the verb to assign. Plainly, then, the referential acts that are supposed to constitute the subject and object constituents of either token or type propositional acts cannot have a semantic role independent of the putative predicative acts, but only have some definite role relative to the content of the verb. Equally, an act itself cannot be construed as an AGENT or an admirer/admirer; only the representation of what is represented can be so construed as having such an interpretation. Again, then, it is incoherent to think of the predicative act as involving sub-acts as its targets. As I said above, this matter turns on an ambiguity of the notation: whether it depicts the very elements of the proposition as acts, which looks incoherent, or instead offers a recipe by which to determine the objects that are the target of predication, and what is predicated. The latter option, however, involves Hanks specifying the acts in terms of an appropriate type theory via the theta criterion, which renders the acting of the acts, as it were, supererogatory in the individuation of the proposition. I shall develop this theme in Sects. 4 and 5, but I raise the objection now for it equally applies to Soames's somewhat different take on how to understand the composition of a proposition, to which I shall now turn.

Soames's agrees with Hanks in thinking that the 'classic' relation between tokens and types should be inverted when it comes to propositions:

The key move is to define what propositions are in a way that makes the derivation of their representational properties from the representational activities of agents plausible. [Take] the proposition that *o* is red. It is the content of a concurrent perceptual or cognitive state whenever the agent predicates being red of *o*. Whenever the agent does this, a concrete event occurs, at a specific time and place, in which the agent predicates this property of that object. This suggests that the proposition that *o* is red is simply the minimal event type in which an arbitrary agent predicates *being red* of *o*. This event-type is representational because every conceivable instance of it is one in which an agent represents something as being a certain way... The intentionality of the event type is *inherent* to it in the sense that the event-type couldn't be what it is without bearing its intentional properties, even though it does so in virtue of a relation it bears to agents. (King et al., pp. 96–97).

In other words, propositions are types that inherit their intrinsic truth conditions from agents' token cognitive acts that share the relevant truth conditions. As with Hanks, there can be such propositions even without tokens: 'since propositions and sentences are complex event types that involve the performance of certain basic acts, their existence is guaranteed by the existence of events in which those acts are performed' (ibid., p. 102). One may doubt the clarity of this thought (cp., King's criticism, ibid., p. 130), but let us assume there are the types available. It should also be noted that Soames amends, the position bringing it more into line with Hanks's view with respect to acts. Rather than thinking of propositions as complex event types, we might, rather, think of them as complex act types that have their properties via agents' performance of certain cognitive acts. Thus, just as we speak of an act being stupid or intelligent as a derivative way of speaking of the agent performing the act (*That was stupid* → *It was stupid of you to do that*), so we can speak of acts as having representational properties derivative of the basic representations of agents (ibid., pp. 235/240–241).

Along with Hanks, Soames appears to think of the act types qua propositional as complex, comprising sub-acts. Let me quote Soames fully:

The structure of a proposition is the manner in which its constituents are related to one another. Since propositions are cognitive event types [or acts], the structural relationships in which their constituents stand to each other are *not* relationships in which things occupying certain positions in an *n*-tuple stand to those occupying other positions; nor are they relationships that certain nodes in an abstract tree structure bear to other nodes. Although nothing prevents using formal constructions of these or other sorts to model propositional structures, the structures being modelled are something else. The structural relationships between the constituents of a proposition are given by the roles the constituents play in the sequence of cognitive operations performed by an agent who entertains it—roles like *being predicated* (of certain things), *being targets* (of certain predications), *being applied* (to certain arguments), *being arguments* (of certain predications), as well as *being sub constituents* of larger constituents which may themselves play these roles, or of propositions that are constituents of larger propositions (King et al., p. 121).

The idea, then, is that the kind of abstract structure often involved in the specification of propositions is but an artefact of notation, not so much because there is always some equivalent set of structures suitable for the modelling task, but because, more fundamentally, what is being modelled is the concrete cognitive activity of agents, and so the abstract constituents and their relations are simply tracking the sequence of acts an agent will perform in representing something as so and so. For example, following Soames's (ibid., p. 123) brief discussion, we might model the proposition that Bill loves Mary as in (6), where the type subscripts mark the relevant property of the items:

(6) [_t [_e Bill] [_{<e, t>} [_{<e, <e, t>} loves]] [_e Mary]]

What this models, however, is the sequence of acts an agent who thinks that Bill loves Mary would perform, such as predicating love of Mary as targeted as an argument, and then the predicating of *love Mary* to Bill as targeted. King et al. (2014, p. 131) rightly notes a certain indeterminacy here, since it appears to make no difference to the proposition arrived at if the sequence is inverted, or if the predication is to an ordered pair. Soames (ibid., p. 238) acknowledges the problem and imagines that some resolution of it might be available. There is a far more fundamental problem, though, which mirrors the problem for Hanks as spelt out above, *viz.*, a proposition itself cannot consist of predications to sub-acts.

Even if we are thinking of predication as a certain kind of act, actions are not predicated of actions. Predicates and their arguments are representations, not acts, but even if we think of representations as some sort of complex actions, the constitutive predicate applies to what the representations represent, not the representing of them. We *can* predicate properties to representings, but that issues in a different proposition from the one that is constituted by a predication to what the representings represent. It is simply incoherent, therefore, as Soames would have it, to think of propositions as sequences of acts with the acts playing certain semantic roles, such as '*being predicated*' or '*being targeted*'. Acts are neither predicated nor targeted; only what acts express may be predicated of what other acts refer to. One might think of propositions as the *product* of certain acts, but even under this view propositions themselves are not such acts or the type of such acts, or in some sense a collective or a sequence of such acts.

If what has been argued so far is correct, then there is an ineliminable role for semantic-type properties in the individuation of the propositions, even when depicted as a complex act type (either as a sequence of sub-acts or not) grounded in token acts. One might now suspect that the act-conception's putative resolution of the unity and representation problems in fact devolves upon the properties of representations *sans* their act-realisation rather than the properties of acts in themselves. This suspicion is confirmed.

4 The unity problem remains

In this section I shall argue that the unity problem that apparently besets the traditional conception of propositions applies equally to the act-conception, whether as offered by Hanks or Soames. It can only be evaded by simply importing the type combinatory

properties of the kind Frege assumed in order to evade disunity. These properties, however, are not in any way explained by or reduced to agents' activity, but are wholly presupposed in the very individuation of the relevant actions. Thus, if unity is a problem for one who follows Frege in thinking of propositions as issuing from type composition with no agent in sight, then it remains a problem for the act-theorist. The very appeal to acts is empty.

The unity problem, under the *wide direction* construal, amounts to a desideratum on a theory of propositions to exclude the non-propositional. If we are thinking of propositions as complexes or sequences of actions, then the desideratum is respun as a demand to exclude certain would-be actions (type or token) as being propositional. What, then, excludes adicity violations, such as exemplified in (7)?

- (7) a <BILL, <SNEEZE, SAM>>
 b <THE BED, MADE>

For that matter, what excludes simple gibberish?

- (8) a <BILL, SAM>
 b <SNEEZE, MADE>

Clearly, the answer can't lie in acts understood as datable concrete occurrences; after all, nothing stops anyone from uttering *Bill sneezed Sam, The bed made*, and so on, or thinking BILL followed by SAM. The problem with these complex events or acts is that they lack the required structure, and so lack truth conditions, but that does not stop them from being acts. Well, the obvious answer is that the putative acts are not instances of the right kind of types, because the tokens lack truth conditions. That is hardly enlightening if one is wondering how a token act could have truth conditions. Still, I'll assume along with Hanks and Soames that token acts can be suitably individuated in terms of truth conditions, i.e., the fact that token acts bring with them all kinds of other properties due to their concrete status is irrelevant (Hanks 2014, pp. 73–78; King et al. pp. 234–235). The wide direction problem, however, asks for an explanation of this fact, or a principled demarcation between that which might have truth conditions and that which cannot. As things stand, we just have a stipulation about certain tokens possessing truth conditions.

It might seem that an advocate of the act-conception has an essay response to the wide direction problem as presented: 'Look, there are no types of the kind depicted in (7) and (8), because no agent could token the relevant acts that would be subsumed by such types. The types are conjured from thin air, whereas on the correct view, the semantic properties of the types wholly devolve upon possible act tokens, which here are lacking'. This response relates to an issue I shall address below and in Sect. 5, viz., that the act-theorist may attempt to off-load some of their explanatory burden onto concepts; that is, the act-conception is only supposed to account for propositions, not for the concepts that supposed propositional acts express. *Pro tem*, the response being entertained misses the crucial point. The wide direction problem asks for an explanation *why* there are no proposition types of the kind (7) and (8) depict. True enough, no agent could token the types, but we still want to know why not, for it can't be a mere contingency, as if someone tomorrow could do so. This challenge does not presuppose that types have priority over tokens, but only asks why certain types are

unavailable, and the answer can't be the brute fact that the tokens are unavailable, because that just raises the further 'Why not?' question.

Digging deeper, we can say that the available token thoughts are those that involve tokens of referencing and predicating that make the right kind of semantic contribution to the host complex by realising certain features that may confer truth conditions upon the complexes. These features, however, must minimally involve some type properties. Thus, it is not a brute fact that an agent can't think that Bill sneezed Sam. The reason is that the predicate (/verb) *sneeze* or SNEEZE has adicity 1, with its sole argument being assigned an AGENT role. Thus, *Sam* or SAM is not interpreted as a participant of the event, and does not reduce the adicity of the relation. Likewise, (7b) is out because it has a wrong type of argument (a bed is not an agent), and even if it did have a right type of argument, it would then be missing an appropriate THEME argument. If we are not to settle for brute facts, some such type identification must be a component of the right explanation, but note two things.

First, the explanation applies at the type level, not the token level. To have the concept SNEEZE is at least to represent it as monadic. If one goes to predicate it of something, therefore, then one can only predicate it of a single argument. In act terms, if you like, the complex act can only consist of the representing or referring to an argument and the act of predicating sneezing of it. This condition, however, applies wholly at the type level. The would-be act of predicating sneezing of two objects fails because it is not the right *kind* of act, because the mind, given its concepts, can only perform certain *kinds* of acts. The explanation, therefore, for the unavailability of (7) and (8), both types and tokens, runs top-down, from conditions on the interpretation of possible token acts to the particular semantic properties of tokens, not bottom up, from the properties of tokens to some general conditions. Going from the bottom, nothing would preclude gibberish without some type specification, precisely because the referential and predicative tokens must be of a type to so much as play the semantic roles they are supposed to enjoy within the token at hand. An act is predicative, say, because it involves a predicative concept in its individuation, not because it occurs on a Sunday. This leads to the second point.

Secondly, the individuation of the putative acts, whether type or token, essentially involves concepts with adicity. No non-conceptual feature appears to matter to the acts being what they are; after all, the occurrence of token acts is not even necessary for there to be the relevant act types/propositions. Thus, a reference act essentially involves a concept or name that makes it the act it is. Likewise, a predicative act can only be such if it involves a concept with adicity 1 or above. One cannot predicate an object of an object, nor even predicate a concept of adicity 1 to two objects. Again, then, acts count as intentional just to the extent that they feature the right concepts in the right combination. Further, what counts as right here cannot be explained by some generic features of acts *sans* the concepts. This is clear even on Hanks's and Soames's accounts, for the only features of the token acts that are involved in the individuation of the types that constitute the propositions are the truth conditions of the token acts, which wholly devolve upon the conceptual combinatory properties realised in the acts, but not constituted by such acts.

Hanks, at least, might complain that I am presupposing a contentious view of concepts. On his account, concepts are a means of classifying and sorting, so a means

of doing things (Hanks 2014, pp. 5–6/64–65). Such a view might well be wrong, precisely because it cannot accommodate the combinatorial features of concepts (cp., Fodor 2010). My present complaints, however, do not turn on any particular view of concepts, save that they are combinable into complexes and are essentially general in the sense of not being explicable in terms of the properties of their tokens. In this regard, concepts are like words and phrases (including sentences). Linguistic items can be tokened, but the linguistic properties of these tokens do not depend upon any features of the tokens. On the contrary, the tokens count as linguistic just to the extent that they realise general syntactic and semantic features as aspects of a general system that the agent in turn realises as part of their natural cognitive development. Thus, a parrot can't token a sentence and one cannot by accident use ASL when fumbling for the keys. All that matters, presently, is that concepts enter into the individuation of the relevant act types, and their properties do not devolve upon the tokens, but explain why the tokens are intentional in the first place.

It bears emphasis that I am not here intending to resuscitate any kind of Platonism or propositional mind-independent metaphysical alienation. As far as I have argued, I am more than happy for propositions to be sourced to mental activity. My only claim is that the notion of act is redundant, for all the explanatory work is being done at the level of concept types and their combinatorial possibilities, not at the level of token acts. One is free, as far as my argument goes, to think of the set of propositions as definable via a generative system that constrains possible thought, much as one should think of language in the same way. There is no Platonism here, as I shall explain in Sect. 7.

So, the act component of the act-conception does not genuinely evade the unity problem, understood as an issue of wide direction; the conception only appears to evade the problem via helping itself to the combinatorial features of concepts just as Frege recommended. Thus, if one is moved by the unity problem, then the act conception should attract you no more than the Frege-style resolution. Put another way, if one is initially dubious about the charms of the act conception, then its treatment of unity hardly beautifies the account, for nothing it offers *vis-à-vis* unity actually turns on the appeal to acts. Indeed, if taken seriously as a reduction of the type-level properties to the properties of the tokens, the position is incoherent.

5 The representation problem remains

The representation problem for the traditional structural view, recall, is how a structure alone can have truth conditions that are not derived from our mental activities. Associated with this query is the thought that various attitudes and speech acts have truth conditions too, and it is opaque how they might inherit their truth conditions from propositions understood as abstract entities whose semantic properties are intrinsic, *sui generis*. As with unity, I think these are serious concerns and deserve an answer. The point I wish to argue, as advertised, is that the act-conception has no coherent answer to the representation problem without helping itself to the kind of concepts and combinatorial features the traditional conception employs. As with the unity problem, the role of acts in the act-conception of propositions appears to be empty.

Let us assume that there is no problem with token thoughts and utterances having truth conditions. The question should still be posed, of course, how this is possible, or what explains the possession of truth conditions. One answer is simply that the relevant concepts are expressed in a way that realises an appropriate compositional relation. For example, take an utterance of *Bill admires Mary*. Given the syntax of the sentence, *admire* expresses the dyadic concept $\text{ADMIRE}(x, y)$, which we might explicitly notate as a type kind [$\langle e, \langle e, t \rangle \rangle \text{ADMIRE}$]. The nominals are suitable arguments for the adicity reduction of the concept, or for providing values for ‘ x ’ and ‘ y ’. Thus, the utterance has truth conditions as fixed by the adicity reduction: *Bill admires Mary* is true iff the concept of admiration applies to the value of *Mary* as the admiree, and the value of *Bill* as the admirer of *Mary*; that is, iff Bill admires Mary. That appears to suffice, but no mention of acts is made, and nor are any acts presupposed. A speaker does not so much apply or predicate a property to an object or objects, although one can talk like that, if one likes, but produces an utterance that tokens a sentence type that carries a fixed interpretation of the adicity reduction of the verb, which makes the truth conditions obligatory. A speaker competent in a given language cannot help the truth conditions of her utterances. This is because of the properties of her language, not because of any datable acts she performs. Hanks and Soames, of course, do not presume that the relevant token acts need be conscious—they can be automatic—but that does not matter. The present point, spun for automatic acts, is that such acts are conditioned as being the acts they are given the stable properties of the cognitive system, not any properties of the act itself upon its tokening.

The same goes for token thoughts. Employing concepts in a definite structure will fix certain truth-conditions because of the very nature of the concepts involved, not because of any other feature of the occurrence of the thought.

If that is right, then the truth conditions of tokens are wholly explained by type-level properties of the concepts involved in the very individuation of the tokens and how those concepts can combine. As with unity, then, the explanation of the phenomena flows from type to the token, not the reverse.¹⁰

Let us consider two potential objections, the second particular to Hanks’s understanding of force.

First, it might be protested that the argument offered only purports to show that concepts must be in place for acts to be truth-evaluable, but that is something neither Hanks nor Soames contest. Further, even if the concepts themselves are not reducible or otherwise explicable in terms of tokens, and so their role in the individuation of acts must flow from the type to the token, the act-conception remains in place. The reason being that a proposition is not determined to be act-independent, even if concepts are. After all, it is supposed to be the act that confers unity, not concept individuation. Thus, Hanks (2014, pp. 46–47, n. 3) avers that the source of the correctness conditions for concepts is a ‘deep problem’ akin to ‘the rule-following problem’, which the act-

¹⁰ Ostertag (2013) and Schiffer (2016) raise some related objections to the effect that, since predicates have instantiation conditions independently of acts simply in virtue of their being semantically individuated, it is unclear why propositions might not have similar act-independent semantic properties. I think this is a sound objection, but my current thought is immune to any differentiation between predication and propositions such as offered by Hanks (2014, pp. 46–47, n. 3; cp., Hanks 2017). See below and Sect. 7.

conception does not purport to resolve, and which Hanks does not otherwise know how to resolve (cp., [Hanks 2017](#), p. 215).

The riposte is right that the act-conception does not essay an account of concept individuation, but my complaint is not that it ought to, but that once the act-theorist has helped himself to concepts with fixed adicities and combinatorial options, which he must do to face the representation problem, proposition-determining acts are wholly supererogatory: nothing more remains for acts to do. So, as far as anyone can tell, any answer to the representation problem must include something akin to the type distinctions with which Frege worked, and these distinctions essentially involved in the individuation of concepts enter into the individuation of content-bearing acts such that no features of the acts themselves independent of the concepts involved enter into fixing the relevant semantic properties. Acts are thus rendered otiose. One might, in the spirit of the entertained riposte, protest that an act of predication is required to glue the concepts as expressed in acts into a propositional unity, or that a functional concept needs to be applied in an act. This thought is mistaken. The adicity of a concept demands its reduction, if something truth-evaluable is to be returned. Similarly, a functional concept demands an argument, if a complex term is to be returned, and a modifier requires an object or event if another object or event is to be returned, and so on. There is no need for an act, because what counts as a predicate or an argument, say, is fixed by the concepts themselves with which any putative act must cohere to be the relevant kind of act at all. One cannot predicate a name of a name, say, no matter what one does. In this sense, propositions are simply the possible truth-evaluable combinations of concepts. To express them we need to act in some way, but such acts do not constitutively enter into the identity of the propositions. In this respect, there really is no difference between concepts and propositions.

It is also worth noting that such considerations have no bearing, so far as I can see, on the ‘rule-following problem’. As indicated, [Hanks \(2017\)](#) readily acknowledges that the source of concepts’ correctness conditions lies beyond the act-conception, but he does accept that the rule following considerations defeat a ‘Platonist’ conception under which such conditions are *sui generis*, or mind-independent. My present point, suffice it to say now, is not a Platonist one. The moral is simply that concepts have adicity regardless of what other correctness conditions they may possess and whatever the source of such conditions might be; and adicity is essential to concept individuation, combination, and the propositions such combinations may express.¹¹ Again, then, the explanatory role of the act appears otiose, once it is properly acknowledged that the relevant token acts are individuated by concepts that remain unexplained by the properties of such acts. I shall return to this issue in Sect. 7.

The second objection I can envisage arises from Hanks’s particular account of force. As will be recalled, Hanks understands the force—whether the proposition

¹¹ [Hanks \(2017, pp. 217–218\)](#) suggests, without endorsing the thought, that the ultimate moral of the rule following considerations against a Platonist conception of concepts might be that we ought to give up on the idea of concepts possessing general correctness conditions. Instead, correctness conditions might be local to particular understandings on particular occasions of the use of the relevant predicates. Even if this thought is correct, my main line of argument is unaffected, for the adicity and general combinatorial features of a concept/predicate are mostly insensitive to extra-linguistic factors, for such properties cross-classify any correctness conditions that might be occasion-sensitive.

is declarative, interrogative or imperative—to be constitutive of the thought such that there is no proposition that is shared across variation in force. Since force pertains to the purpose or illocution of the speech act (to assert some fact, elicit information, or elicit the fulfilment of a request), if force is constitutive of the proposition, then it is natural to think of the proposition as an act type. Hanks's basic reason for the assimilation of force with content is that predication cannot be non-committal; that is, if sneezing, say, is predicated of Bill by some agent, then the agent must be representing Bill as sneezing. The agent cannot, as it were, merely be entertaining that Bill sneezes, if sneezing is predicated of Bill and the speaker does no more. There are, of course, familiar objections to any such assimilation based on the myriad contexts where a predication occurs but assertion doesn't, as with conditionals, disjunction, and various clausal subordination (*I doubted that Bill sneezed*). Hanks (2014, chp. 4) seeks to handle all such phenomena via a mechanism of *cancellation*, which is supposed to cancel the force of the proposition, while leaving the predication intact. The mechanism might be suspected to be more of a label for the phenomena than an explanation of it (see note 8). I think, however, that a more basic objection to the very idea of assimilating force with content is available, which is orthogonal to any doubts about the status of cancellation. In a nutshell, there is a perfectly robust sense of predication that is independent of force, and so even if one thought of force as being constitutive of the proposition, it would not establish the act of predication (asking/requesting) as being the basis of propositional content.

Let's focus on verbs; the same morals apply more generally, but would require too much background to spell out. The arguments of a verb and their respective semantic roles are fixed relative to the verb alone, not relative to any other grammatical property. Consider *Bill admires Mary*. A standard way of depicting the syntax of the sentence is as follows (with extraneous details elided):

- (9) [_{CP} C [_{TP} Bill T-*s* [_{vP} <Bill> v [_{vP} admire Mary]]]]¹²

For our purposes, the crucial thing to note is that the number and roles of the arguments of the verb are fixed in the *vP* domain, independent of tense and any modality or negation that may be introduced. Tense is spelt out on the verb. The CP layer is basically where issues of force are settled (cp., Haegeman 2012). This becomes clear when we see how the interrogative is structured:

- (10) [_{CP} Does [_{TP} Bill T-*ed* [_{vP} <Bill> v [_{vP} admire Mary]]]]

Here, we take *do* to occupy the C head position, with tense spelt out in that position as an affix. The verb structure remains invariant, which holds even more strikingly with *wh*-questions.

- (11) a [_{CP} Who does [_{TP} Bill T-*s* [_{vP} <Bill> v [_{vP} admire <who>]]]]
 b [_{CP} Who [_{TP} <who> T-*s* [_{vP} <who> v [_{vP} admire Mary]]]]

Again, the verb structure is invariant. This is so in two respects. First, the *wh*-items are interpreted in the verbal domain, for in asking, say, who does Bill admire, one is precisely asking after the value of the object position of the verb, i.e., the adicity

¹² For seminal discussions of the relevant syntax, see Larson (1988), Chomsky (1995), and Baker (1997).

and semantic role assignment of *admire* remains the same whether one is asserting or asking. Thus, the cases in (11) have the logicese interpretations in (12):

- (12) a (which person x)[Bill admires x]
 b (which person x)[x admires Mary]

This is further confirmed by the absence of any free readings of the null-positions. Thus, (11) can't have vacuous interpretations as in (13):

- (13) a (which person x)[Bill admires y]
 b (which person x)[y admires Mary]

Secondly, no addition of modifiers, adverbs, or other adjuncts, or various grammatical transformations and subordination can affect the verbal domain, which remains the same across (9)–(11). The same invariance holds across the full range of complex constructions investigated in current theory.

Imperatives are a complex case, with many unresolved problems. Still, for *Admire Mary!*, (14) captures many of the salient features:

- (14) [_{CP} C [_{TP} <you> [_{vP} <you> v [_{VP} admire Mary]]]]

First, the subject position of imperatives is obligatorily read as 2nd-person. Secondly, although an imperative can appear just as a bare verb (*Leave!*), we know there must be more structure as witnessed with negation:

- (15) a *Not leave!
 b Don't leave!
 c Don't you leave!
 d *Don't Bill leave!
 e *You/Bill don't leave!

Again, we see that the verb structure is invariant, with imperative force and negation being carried outside of the verbal domain, just as with the other structures.¹³

These are examples of linguistic structures in English, so do not *directly* speak to the structure of thought. Still, there is a clear moral here, especially if propositions are supposed to be things sentences express compositionally. The lesson is that predicative structure is fixed independent of force insofar as verb-argument relations are invariant over variation in force. It is open to Hanks, however, assuming that the syntax is not to be disputed, that while force is *grammatically* independent of the predication realised by the verb, it remains constitutive of the proposition the grammatical form may be used to express. Indeed, it does not follow from the syntax that what is fixed in the verbal domain counts as a proposition all by itself. Let's suppose that a proposition is fixed only with force fixed, and probably tense; after all, questions *are* different from assertions. Such a concession to Hanks, however, does not affect the invariance of

¹³ As previously noted, Hanks depicts the imperative proposition as involving an referential act, as in:

(i) !<BILL, LEAVE>

This is OK, given the provision of some object that is the target of the command, but it elides the 2nd-person aspect. For example, in, say, *Bill, leave!*, *Bill* is a vocative, and not an argument of the verb. An exact rendering would be *Bill! You leave!* This elision matters for Hanks's (2014, pp. 184–185/195) treatment of infinitive clauses as imperatives. See Sect. 6.

predicative structure, and so the clean separation of predication from force remains. Further, the bare predicative structure will not count as true, for it is precisely invariant between sentences that can be true and those that cannot (imperatives and questions). Still, tense apart, the truth conditions of an assertion can be wholly specified by the predicative structure; likewise, the satisfaction conditions of a question can be wholly specified by the predicative structure, and the fulfilment conditions of an imperative are likewise specifiable by the predicative structure alone. Appeals to acts here are explanatorily empty.

Hanks may further dig in his heels by way of simply commending a separation of syntactic structure from the proposition expressible by such structure. That is not a happy pass, for it looks *ad hoc*, given that elsewhere syntactic structure clearly and unsurprisingly constrains what propositions can be expressed by such structure. Indeed, as explained, force has a clear grammatical signature, so even if Hanks wishes to initiate the divorce as imagined, it is unclear what story can be told of how and why force as grammatically realised fails to be independent of predication.

6 The problem of operators

The essence of my charge against the act-conception is that its appeal to acts as an explanatory notion is really a sham, for all of the explanatory work is done by the concepts that individuate the actions, which in turn are not reducible to or otherwise explicable in terms of actions. An appeal to acts, therefore, is a mere *façon de parler*, which appears to ground propositions in cognitive activity until one asks precisely what aspects of the acts are constitutive of the propositional contents; thereupon, the activity of the act evaporates. This can be clearly, seen, I think by reflecting on the role of operators that create non-adjacent dependencies. This phenomena is rife throughout natural language syntax and semantics, perhaps most familiarly occurring with quantification and *wh*-questions. The phenomenon is that a predicative structure has argument roles that are interpreted relative to an operator outside of the structure. We saw this with *wh*-questions, where *who* (*mutatis mutandis* for *what*, *how*, *where*, etc.) is interpreted as an operator scoping into a particular argument position of an embedded verbal projection, such that one may question the subject or object of the verb, but not both (modulo ATB) or neither. The same holds for quantification, as witnessed by familiar ambiguities:

- (16) a Every teacher admires some pupil
 b (every teacher x)(some pupil y)[x admires y]
 c (some pupil y)(every teacher x)[x admires y]

The problem for the act conception is how to understand the embedded predicates in such thoughts as acts of predication. Unfortunately, what Hanks and Soames say about such cases does not apply in generality and appears incoherent even in regard to their favoured cases. Let's focus on Hanks's (2014, pp. 87–89) account of quantification.¹⁴

¹⁴ Soames, unlike Hanks, does endorse a separation of content from force, and so is happy with a neutral sense of entertaining a proposition. This does not evade the problem to be presented, though, which would,

Consider the thought that every politician admires Clinton. Hanks offers (17) as the proposition:

(17) $\vdash_2 \langle\langle \text{EVERY, POLITICIAN} \rangle, \langle \emptyset, \text{Clinton} \rangle, \text{ADMIRE} \rangle\rangle$

Here, an agent is said to ‘target Clinton for the admiree role in the admiration relation, leaving the admirer role open [\emptyset]’. This is said to ‘yield the one-place property of admiring Clinton’. The quantifier phrase, expressing a function ‘ F_V ’, in effect predicates being true of every politician to the property of admiring Clinton. Hanks (ibid., p. 194) essays a similar account for *wh*-questions involving an open or empty augment slot. The account, of course, just helps itself to a standard Montague-style treatment of quantification. The problem arises when we think of what the act of predicating admiring of Clinton is supposed to be. The empty subject slot is required such that the quantification may apply without being vacuous, but it can’t be merely empty, a gap, for then the quantification would indeed be vacuous. In some sense, therefore, it must be encoded that *admire* is type $\langle e, \langle e, t \rangle \rangle$, or, at any rate, is essentially dyadic. If that is so, however, then the act of predication of admiration to Clinton should fail, because, as Hanks (2014, p. 83), as discussed above, rightly notes, an act of predication must predicate something of something, but whatever is targeted must be sufficient to satisfy the argument positions of the predicate. In short, it is opaque what ‘ \emptyset ’ is meant to represent as the target of the act of a predication of admiration, for if ‘ \emptyset ’ just picks out an empty slot, then there is no target at all. This problem does not arise on the standard representational models of quantification, either in semantics or syntax, because the argument role is filled, not merely empty, by a variable or a trace or a copy, or at least some item that requires interpretation in line with the adicity of the verb. ‘ \emptyset ’ is not a variable, however, for it were, it would require an interpretation, but how, one should imagine, could an agent referentially target the value of a variable in the relevant sense? A variable does not refer to a variable thing out there, but is a symbol that marks the open position of a predicate/function that ranges over a class of objects, none of which needs to be referred to. The problem becomes utterly stark when we consider both slots interpreted by quantifier phrases, such as in the thought that every politician admires some judge (*mutatis mutandis* for an intransitive verb with a quantificational subject). Just consider the surface scope reading, which would be rendered, presumably, as (18):

(18) $\vdash_2 \langle\langle \text{EVERY, POLITICIAN} \rangle, \langle\langle \text{SOME, JUDGE} \rangle, \langle \emptyset, \emptyset \rangle, \text{ADMIRE} \rangle\rangle$ ¹⁵

The act of predicating admiring here would have no target, so should fail as a predication, and so (18) should fail as a proposition. It would appear that a subject can represent the concept of admiration, which may enter into a proposition without her

Footnote 14 continued

in effect, involve the entertaining of a predicate *sans* act. As regards quantification in particular, Soames (King et al., p. 100) helps himself to assignment functions in order to fix a semantic value for predicative expressions with free variables. See below.

¹⁵ An alternative could be (i), but nothing turns on this:

(i) $\vdash_2 \langle\langle \text{EVERY, POLITICIAN} \rangle, \vdash_2 \langle\langle \text{SOME, JUDGE} \rangle, \langle \emptyset, \emptyset \rangle, \text{ADMIRE} \rangle\rangle$

predicating it of anything. Other familiar problems immediately arise, too, of course, such as how to distinguish the open slots, a problem that is utterly insuperable if variable positions are analysed as mere empty slots.

It bears emphasis that the problem operator-variable relations pose for the act-conception does not depend upon covert or null positions such as occur in *wh* and quantificational structures. The same problem arises with bound-variable anaphora. Consider (19):

- (19) Every philosopher thinks he is a genius

The relevant reading is the one where each philosopher thinks himself to be a genius. The predicative act constituting the content of the subordinate predicate *is a genius* appears to lack an argument, for *he* cannot refer to a given individual (on the intended construal), and nor can it refer to every philosopher (*Every philosopher thinks every philosopher is a genius* expresses a quite different thought). The pronoun needs to be construed as a variable, but we do not know how to think about variables in an act-theoretic way; they certainly can't be mere gaps as Hanks appears to imagine.

A similar effect also occurs with subordinate infinitive clauses. Hanks (2014, pp. 184-5/195) treats such clauses as expressing an imperative proposition whose force is cancelled:

- (20) a Bob wants [PRO to be eloquent]
b ! <BOB, ELOQUENT]

I can see no linguistic motivation for this claim, which fails to generalise over infinitives (*To be eloquent is prized*) and reflects no selective properties of the relevant matrix verbs; but even parking those complaints, the analysis fails where the matrix subject is quantificational:

- (21) a Everyone wants [PRO to be eloquent]
b ! <EVERYONE, ELOQUENT]

(21a) does not mean that everyone wants everyone to be eloquent. Again, the subject of the infinitive must be construed as variable-like; but if so, then there is no corresponding imperative proposition, for there is no targeted object.

Finally, it should be noted that the phenomena here is not restricted to quantification. Consider so-called *tough constructions*, which (22a) exemplifies, with (22b) offering the logicese reading:

- (22) a Bill is hard to beat
b (for any arbitrary person x)[it is hard for x to beat Bill]

The crucial point is that Bill is construed as both the object of *beat* and the bearer of the property of being hard to beat by any arbitrary person. This gives us something like (23) as the relevant semantic structure:

- (23) λy (for any arbitrary person x)[hard for x to beat y](Bill)

Again, then, it appears that the predicate at hand (*beat*) requires a variable argument position, and so is not predicated of anything an act might target. In this case, the variable is not quantificationally bound, but eventually saturated by the value of the matrix subject.

The general problem operator-variable relations pose is that it is difficult to see how to square treating propositions as constituted from parts including predicative acts with the fact that some of these predicates are not predicated of anything, but still have argument positions that can be interpreted relative to higher operators. Variables, of course, are a natural way of tracking such relations, but it is opaque what it means for a predicative act to target the semantic value of a variable as such, and without some story here, it looks as if acts of predication are not available when predicates essentially enter into interpretation with arguments unsaturated, but predicates arise like that all over language. An act-theorist may look to help himself to whatever semantic theory of variables is on offer, and deem whatever semantic value the theory provides as the target of the predicative act. In effect, Soames (King *et al.*, p. 100) adopts this policy, taking the relevant predicative act to be targeting a value of an assignment function defined for the variable-involving predicate. For such a stratagem to be viable, however, the agent must not target a given object, for the predicative concept is not understood as true of a specific object, but instead target the function from the set of assignment functions to the values the functions give to the variable at issue. It is not so much that this sounds silly, which it does, but that such a putative object of an agent's targeting is an artefact of model theory, not a denizen of the world to be referentially picked out. So much for explaining propositions via token acts! Again, then, the role of the act appears wholly redundant, for the putative act of predication is projected from the semantics the model theory provides rather than, in any sense, grounding the semantic relation in a token act or being otherwise specifiable. Likewise, treating variables as satisfied by infinite sequences is out for the same reason. Variables just do not have referents to be targeted in the way names do, but nor are they mere gaps, as the various formal treatments make clear. There are, to be sure, non-variable ways of expressing operator-variable relations. How such accounts might be finagled into an act-conception is presently wholly dark.

7 A conception of propositions between acts and Platonism

If the above arguments are sound, then the act-conception is not really an alternative to a traditional picture, for the crucial notion of an act is a mere *façon de parler*, which appears to be explanatorily redundant. We should be moved, however, by the animating concern of the act-conception to bring propositions down to the human level, as it were, and to see them as things whose properties are fixed by us rather than somehow intrinsically inhering in propositions independent of any human cognition. I think that there is a natural way of allaying justified concerns over mind-independent truth-conditions without succumbing to the dubious blandishments of the act-conception. As mentioned in Sect. 1, Hanks and others assume that propositions, if not possessing their truth conditions mind-independently as Platonic entities, must be grounded in agents' acts. This strikes me as fallacious, for propositions can be understood as the products of a cognitive system, and so not Platonic, without the system itself or its products being reduced to, or otherwise explained by, the token acts of agents (cp., King 2007).

To a first approximation, one may think of propositional thought as being language-like. Of course, this is hardly a novel thought (cp., Fodor 1975). Still, I wish to highlight a particular feature of such a conception. On the standard generative conception of linguistic competence, the human mind/brain realises a generative system that defines a set of possible structures that may receive a coherent interpretation. There is a great deal of complexity concerning the relation between structure and interpretation, for we can find intelligible lots of structures that are grammatically anomalous. Still, it is clear that, for each natural language, the class of possible structure-interpretation pairs massively outstrips anything a speaker-hearer of the language could act upon, in terms of both length and complexity. The reason all of the pairs remain perfectly good linguistic objects, however, is because they each have the same kind of syntactic-semantic properties fixed by the system that generates the class as a whole (e.g., a principle that generates one relative clause in a nominal domain is one that generates a trillion in the absence of any stipulations of an arbitrary bound). Thus, to exclude some pairs because they are impossible to actualise (because, say, they contain a trillion relative clauses) would either complicate or impair the system's ability to generate *any* of the structures. The notion of a possible unactualised structure, therefore, need not necessarily attract a Platonist gloss, but can be happily explained in terms of the nature of an abstract system characterisable independently of any speech acts, even though the system will enter into the explanation of the linguistic properties of any linguistic act. In effect, this thought is simply a recasting of Chomsky's (1965) competence/performance distinction. It is plain how such a model might be translated into one for thought itself.

Propositional thought is made available by a generative system of concept combination. The principles of generation (the syntax, if you like) might mirror those for language, or be quite distinct. All that is presently important is that the system defines a class of possible conceptual combinations. On this conception, the space of possible thoughts and their truth conditions are fixed by the nature of the combinatory system, and so fixed by the cognitive states of human beings. In this sense, the picture is not Platonist. On the other hand, the concrete acts of individuals do not enter into the individuation of the states of system; to the contrary, the cognitive acts are as they are precisely because they issue from an agent that realises such a system that is characterisable independently of whatever the agent happens to do. The question of the truth-conditions of the conceptual combinations the system generates reduces to the identity of the concepts and their permissible combinations. The issue, here, note, is not causal-etiological. No-one, I take it, has a sound account of where our concepts come from. Yet even if we were to assume that they arise from agents' classifying and categorising activity, no such contingent synchronic activity is constitutive of concept individuation and permissible combination. At any rate, neither Hanks nor Soames appear to think so.

One immediate objection to the account on offer is that it denudes propositions of their inherent truth conditions, for if concepts are language-like, then they require an interpretation, but propositions don't require interpretations—they are interpretations, as it were. Such an objection is confused. Concepts and their combinations are defined by a system realised in the human mind/brain. Their tokens, when such there are, are realised by some vehicle, much as linguistic structures can be tokened in many

different formats. The vehicles, however, are not interpreted by anyone, but simply constitute the material base, as it were, for the relevant concepts to be active in a given state of an individual. The point, in fact, is much the same for language. Language as spoken or otherwise used by an individual no more requires an interpretation than does the individual's thoughts. What does require interpretation by another party are the external vehicles an individual might deploy in speech, unlike the internal vehicles of thought, but such external signs have no inherent linguistic properties at all, not syntactic, let alone semantic ones. The linguistic properties are *sui generis*, much as concepts are.

As discussed in Sect. 5, Hanks (2014, pp. 46–47, n. 3) raises a concern that shifting the explanatory burden from propositions to concepts is liable to land one back with 'Platonism' and the 'deep problem' of 'rule-following' concerning the correctness conditions for concepts. The account on offer, however, does not pretend to give an answer to the question of concepts' correctness conditions (beyond triviality), but only to forward the idea that humans possess combinatory concepts, whose semantic properties fix what can be propositionally thought by way of providing individuation conditions for propositions. More concessively still, my intent in sketching such a conception of propositions is merely to indicate that there is a vast area of potential theories and explanations of conceptual competence and propositions lying between an out-and-out Platonism and an act-based conception. Any qualms about Platonism, therefore, should not lead one into the arms of the act-conception, even if one thinks that the act-conception is viable on other grounds. As it is, if my reasoning throughout the above is sound, then the act-conception is not a genuine alternative to the account sketched or even a traditional account, for its appeal to acts is supererogatory, where coherent. It is unclear what is actually act-based according to the act-conception of content.¹⁶

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¹⁶ My thanks go to two referees of the journal for helpful comments and Tamara Dobler for extended discussions on the topic.

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