

# SPECIFICITY AND RESOLUTION IN THE COMMUNICATIVE USE OF SINGULAR TERMS

## Introduction

This paper is about what is required if speakers are to count as understanding one another's uses of singular terms. Extant discussions of this issue are dominated by what I shall call the 'standard picture'. This picture has three components:

- (i) In central cases, a speaker using a singular term is expressing a thought about a specific particular.
- (ii) Understanding requires that the hearer respond by forming a thought about the same particular.
- (iii) Understanding also requires that (ii) be secured in an appropriately non-lucky way.

For example, according to the standard picture, when I say (in a commonplace situation, with no funny-business) 'Agnes needs her dinner,' I am expressing a belief about my dog. You understand my remark only if you respond by forming an attitude about this same individual (maybe a belief about the dog; maybe a belief as to what I believe about the dog), and doing so in a way that meets an appropriate non-luckiness condition.

With the standard picture more-or-less assumed, the debate has focussed on what is involved in each of (i) – (iii), and on how to stretch the account to cover non-central cases, for example, those where there is, by accident or because speaker and hearer are engaged in a pretence, no object the exchange is about.

Variants of the standard picture address these questions in their own ways. For example, a 'Fregean' variant will treat speakers as associating singular terms with 'modes of presentation' of (ways of being presented with) objects, and gloss (iii) as a requirement for an appropriate non-lucky (or luck-eliminating) relation between the modes of presentation associated with a term on the speaker's and hearer's sides of a communicative transaction.<sup>1</sup> A 'Stalnakerian' variant will look very different. Stalnaker argued that a conversation can be modelled as a shared activity directed at enhancing the agreed-upon record of how the world is (the 'common ground'), where this is a matter of narrowing down the set of possibilities that are 'live' as ways the world might be. In a Stalnakerian framework, a speaker making an utterance is proffering a move in this activity; understanding requires that the hearer's linguistic competence generate recognition of the proffered move.<sup>2</sup> So (i) becomes the claim that in a central cases of an assertion containing a singular term, the speaker is proposing, for non-lucky recognition by the hearer, an update about some specific thing. (ii) and (iii) become requirements on how rich the common ground must be

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<sup>1</sup> Frege's own view was that genuine understanding requires speakers to associate the singular term with *the same* mode of presentation of the referent (Frege 1984 esp. pp 357-60). The central question for subsequent attempts to develop Fregean models has been how to motivate a weaker 'appropriate relation' condition. I take Fregean proposals to include Evans 1982; Heck 1995; Pagin 2008; Dickie and Rattan 2010; Peet 2019. Kaplan's account of communication becomes 'Fregean' in this sense if supplemented with a solution to the interpersonal version of his 'problem of cognitive dynamics' (Kaplan 1989 pp 537-8).

<sup>2</sup> Stalnaker 1989a pp 79-80, and many other places.

if the speaker is to count as making this kind of proposal, and the hearer as achieving non-lucky recognition of what is being proposed.<sup>3</sup>

But for the purposes of this paper, the differences between these variants will not matter. I am going to argue that the standard picture – ubiquitous as it is; intuitive as it seems – is wrong.

The paper has three phases. §1 lays out an initial puzzle for the standard picture. §§2 – 5 develop the alternative model that I want to propose. §6 shows how this alternative model accommodates the standard picture as a limiting case.

## 2 An initial puzzle – dynamic non-specificity

Some months before his death in 1982, German auteur Rainer Werner Fassbinder rang Jane Fonda to solicit her participation in his next project. Jane Fonda answered the phone with the words ‘This is Jane Fonda herself.’ So delighted was Fassbinder that, in the remaining months of his life, he would sometimes answer the phone Jane Fonda-style: ‘This is Fassbinder himself,’ he would say.<sup>4</sup>

We can, of course, see Jane Fonda’s point. Taking a clear-headed view of her fame, she anticipates that a caller will be expecting somebody else – a member of her entourage – to answer the phone for her. She is (helpfully) setting the matter straight. Even as Fassbinder said ‘I’m ringing Jane Fonda,’ he almost certainly was not expecting to talk to *Jane Fonda herself*. Rather, he was announcing the making of a call in Jane Fonda’s general direction; a call he expected to be answered *maybe* by her, but more likely by one of her people.

Fassbinder’s (imagined) utterance here, ‘I’m ringing Jane Fonda,’ illustrates the phenomenon of ‘felicitous non-specificity’ in our ordinary uses of singular terms: there are cases of successful communication using a singular term where, given the context of utterance, it is not determinate which particular the speaker’s ‘intended message’ is about.<sup>5</sup> Here are two other cases of this kind: (let us count Fassbinder-Fonda as *Case 1*)

*Case 2* Walking past a row of parked cars, S points to one and says to H ‘That’s a beautiful car.’

*Case 3* H arrives home. S points at a parcel in the corner and says ‘This came for you.’

Was S in *Case 2* talking about the car token or the car type? Given the utterance and the situation, we (and H) are in no position to answer this question. And it is easy to imagine the situation as one where S herself has neither token-not-type nor type-not-token in mind. Suppose H asks ‘Did you mean that car in particular, or that make and model?’ S might reply one way or another, but is equally likely to say something like ‘Either, both, I don’t know. I hadn’t made up my mind.’ Something similar holds of *Case 3*: S has not done enough to pin down either the parcel or the contents as referent for her use of ‘that’: she might mean either or (somehow) both.

On the face of things, in each of *Cases 1 – 3*, neither the speaker’s side nor the hearer’s side of the transaction involves identification of a specific object. Yet, on the face of things, each is a case of communication: the speaker’s utterance does not register as infelicitous or in need of

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<sup>3</sup> Compare Stalnaker 2009.

<sup>4</sup> Katz 1987 p. xiv.

<sup>5</sup> I adapt the term from King 2018. The observation that there are such cases is old – see Dummett 1981 pp 73-80. As well as King 2018, more recent discussions include Dickie 2020, Szabo 2020, Charlow forthcoming.

correction; the hearer is in a position to understand the utterance and move on with the conversation. The speaker, it seems, is operating at a level at which the distinction between candidate target entities just does not matter for what is attempted to be got across.

Now, the standard picture was initially introduced as applying only to a ‘central’ range of cases: those where, on the face of things, the speaker *is* rightly regarded as attempting to communicate about one specific object. So *Cases 1 – 3* do not yet generate grounds for an objection to this picture. Rather, they generate a challenge: an adherent to the standard picture needs to extend it to explain them.

And it might seem obvious what the required extension should be. Every account of communication must deal with cases where linguistic competence and contextual factors leave the hearer with competing verdicts as to what the speaker is attempting to get across. Often such ambiguity is a barrier to communication. But this is not always the case. For example, as used by residents of Toronto, the name ‘London’ might refer to either London, England or London, Ontario. Suppose I say ‘Why is X walking their dog – do you think he’s decided to change his ways?’, and receive the reply ‘No, it’s just that Y is in London today.’ (Suppose that it is almost invariably Y who walks X and Y’s dog.) I might ask ‘London here, or London over the sea?’, but I might well not bother seeking the clarification: just knowing that X is walking the dog because Y is out of town tells me not to take X’s behaviour as a sign of a new regime. (In linguists’ terms, the ambiguity between two referents for ‘London’ does not block communication in this instance because it does not matter to the ‘question under discussion’.) So – we might ask, on behalf of the standard picture – why not treat *Cases 1 – 3* as cases of harmless ambiguity<sup>6</sup>?

To see the answer to this question, and the puzzle that I want to raise for the standard picture, we need to look more closely at how patterns of specificity and non-specificity evolve in a conversation as it unfolds over time.

It is an old observation<sup>7</sup> that specificity-or-not for an ‘ $\alpha$  is  $\Phi$ ’ sentence used in a context depends on the predicate as well as the singular term. For example, consider this trio of ‘Jane Fonda’ utterances:

- 1 I’m ringing Jane Fonda.
- 1a Jane Fonda was born in 1937.
- 1b Jane Fonda’s sitting in all of those seats.

1 is the initial utterance – Fassbinder might mean Jane Fonda herself, or her entourage, or both. In contrast, somebody uttering 1a in an ordinary context can be talking only about Jane Fonda herself. 1b goes the other way – each seat is occupied by a member of Jane Fonda’s entourage.

In many cases, non-specificity is eliminated when a subsequent utterance contains a predicate whose presence forces a choice between candidate referents. For example, keeping the backdrop the same, we can imagine an utterer of the initial, non-specific 2 continuing with either 2a or 2b<sup>8</sup>:

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<sup>6</sup> This would take us to an account of non-specificity commensurate with recent proposals to the effect that ‘what is said’ by an utterance is sensitive to the question under discussion. See for example Stokke and Schoubye 2016. King’s 2018 proposal is along these general lines. The idea of a question-sensitive account of representational content goes back at least to Lewis 1988. Yalcin 2018 explores the proposal for the case of belief.

<sup>7</sup> Dummett 1981 p 76?

<sup>8</sup> Szabo 2020 p. 68 points out that the fact that a speaker uttering the initial sentence might continue with either the a or b alternative cements the diagnosis that the initial utterance is not specific.

2 That's a beautiful car.

2a That's a beautiful car, but it's a bit dinged up.

2b That's a beautiful car – the last one they made is on display in the British Motor Museum.

The 2a continuation closes off the 'car type' reading of the non-specific 2; the 2b continuation goes the other way.

There is, again, an obvious move that suggests itself here for a proponent of the standard picture. If non-specificity is a kind of ambiguity, resolution of non-specificity is just...resolution of ambiguity: 2 is ambiguous between a car-token-claim and a car-type-claim; 2a resolves this ambiguity in one direction, 2b in another.

But now consider another variation, keeping the backdrop the same:

2c That's beautiful. It's a bit dinged up. It's fantastic to drive though – it's the car I learned in.

If the account of non-specificity we have pursued on behalf of the standard picture is right, this pattern should be impossible. According to this account, the first sentence is ambiguous between car-token-claim and car-type-claim. The second resolves this ambiguity in favour of the car token. So – if the account is right – the third sentence should also register as making a claim about the car token: 'it' in the third sentence should pick up the disambiguated referent from the sentence before. But this is a wrong result. In uttering the third sentence in 2c, the speaker might be making a claim about the car token (the claim that she learned to drive in *that very car*), but might be making a claim about the car type (the claim that she learned to drive in a car of that make and model).

It is not hard to think of examples that replicate the pattern. Consider these variations on *Cases 1 and 3*:

Speaker<sub>1</sub>: Look, Jane Fonda's arrived.

Speaker<sub>2</sub>: I thought she was taller than that. Let's go over there – it'll save us having to ring her next week.

Speaker<sub>1</sub>: This arrived today.

Speaker<sub>2</sub>: It's for his birthday. He's coveted one for ages. I ordered it from Italy.

Speaker<sub>1</sub>: It's been shipped from New York.

In each of these cases, we start with an utterance that displays felicitous non-specificity. An initial subsequent remark eliminates the non-specificity; another brings it back.

I have suggested that this is a pattern the standard picture cannot explain. To consolidate this diagnosis, let us walk through the details for a Stalnakerian version of the standard view.

Recall that in Stalnaker's framework a conversation is a shared activity directed at enhancing the common ground, narrowing the set of live possibilities. A speaker making an utterance is proffering a move in this activity. In intuitive terms, if the utterance is an assertion that *p*, the proffered move is addition of *p* to the common ground, which is elimination of all not-*p* possibilities from the set of live options. What a speaker is using an expression to stand for is just one fact among others as to what the actual world is like. So, for example, if I tell you that 'Agnes' is my dog's name, I am proposing addition of this claim to the common ground. A

conversational situation where a hearer is in a position to understand an ordinary (specific) use of a singular term is one where the common ground already contains enough detail to pin down which object the speaker is using the term to talk about.

Against this background, the obvious suggestion about *Cases 1 – 3* is that these are cases where the common ground is not sufficiently rich to determine a single referent for the singular term. In *Case 1*, the set of worlds left live by the common ground includes some where Fassbinder is using ‘Jane Fonda’ to refer to the film star; others where he is using the name to refer to the entourage. In *Case 2*, the set of live worlds includes some where the demonstrative is being used to talk about the car token, others where it is being used to talk about the car type; in *Case 3* it includes some worlds where the demonstrative refers to the contents, others where it refers to the parcel.

Stalnaker’s framework already has an account of how a speaker’s utterance can be both in good order, and understood by the hearer, in situations involving such indeterminacies. When the set of live worlds includes some where an expression is used to talk about X and others where it is used to talk about Y, the speaker’s utterance is in good order iff the indeterminacy is treated as internal to the message the utterance conveys. Treating *Case 2* like this, we get the result that the sentence ‘That’s beautiful’, uttered in the *Case 2* situation, proposes the update that could also have been proposed by saying ‘Either I’m using “that” to refer to the car token, and the token is beautiful, or I’m using “that” to refer to the car type, and the type is beautiful.’ The worlds the speaker is proposing be eliminated as live options are those where neither disjunct holds.<sup>9</sup> The continuations in 2a and 2b – ‘It’s a bit dinged up,’ ‘The last one is on display...’ – eliminate, respectively, worlds where the referent is the car type and worlds where it is the car token.<sup>10</sup>

But this explanation will not stretch to cover the the pattern in 2c. If we treat the utterance of ‘It’s a bit dinged up,’ as eliminating ‘car type’ worlds from the set of live options, we are left with no account of the non-specificity in the subsequent continuation ‘It’s fantastic to drive though – it’s the car I learned in.’ Both predicates in this sentence (‘fantastic to drive’; ‘the car I learned in’) are ‘neutral’ in that they could be used to characterise either the token or the type. So there is nothing in the sentence to re-introduce worlds where the demonstrative refers to the type rather than the token into the set of live options. If the Stalnakerian version of the standard view is right, the utterance should read as making a specific claim about the car token. But this is not the case.

This is what I shall call the ‘puzzle of dynamic non-specificity’. I have walked through the details for Stalnaker’s version of the standard picture. But the puzzle arises for standard pictures across the board. If the standard picture is assumed, the only obvious move available to explain felicitous non-specificity is to treat it as a variety of harmless ambiguity. But once ambiguity is resolved, it is not re-introduced by a neutral utterance. So we are left with no account of the puzzle-raising pattern. (Compare: ‘There’s a bat in the cupboard. It’s asleep with its wings tucked in. It’s hanging upside down.’ ‘Bat’ in the first sentence is lexically ambiguous (mammal or piece of sports equipment). The ambiguity is removed by the presence in the second

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<sup>9</sup> In Stalnaker’s terminology (1989a p 82), the proposal is to explain felicitous non-specificity using ‘diagonalisation’ and the ‘dagger’ operator.

<sup>10</sup> This will be a matter of ‘presupposition accommodation’ (Stalnaker 1989b pp 102-4): since it is part of the common ground that only tokens can satisfy ‘dinged up’, the utterance is in good order only if the anaphoric pronoun is being used to refer to the car token. The speaker exploits this fact to use the utterance to propose addition of this point the common ground.

sentence of predicates applicable only to living things. If we had just the first and third sentences – ‘There’s a bat in the cupboard. It’s hanging upside down,’ – the ambiguity would remain: there is nothing in ‘It’s hanging upside down’ to resolve things one way or another. But once the ambiguity is gone, it stays gone: the ‘neutral’ third sentence does not re-introduce the possibility that the bat at issue is something used in cricket.)

The next three sections motivate an account of the thoughts we standardly express using ordinary singular terms that predicts and explains dynamic non-specificity phenomena. Here is what I am going to propose in intuitive terms. Thinking about a particular is maintaining a kind of focus on it. Speakers communicating about a particular are maintaining a kind of joint focus. But focus relations have degrees of resolution: increase the resolution, and what looked like one object resolves into two; decrease the resolution, and the effect is reversed. Shifting patterns of specificity in our uses of singular terms are the predictable results of increases and decreases in resolution – zooming in; zooming out– of shared focus-maintaining activities.

Though I have used a puzzle to approach this alternative picture, the central motivation for it that I shall present starts from first principles. For this reason, I shall not tarry to consider undignified contortions that might solve the puzzle while keeping – on paper – the standard picture. I shall return to the comparison between the standard picture and the alternative proposal in §6.

### §3 Cognitive focus (I) – the aboutness of ordinary thoughts

The next three sections motivate what I shall call the ‘cognitive focus’ model of thought and speech about ordinary things. This section and the next argue that ordinary thinking about ordinary things<sup>11</sup> (hereafter ‘*ordinary* thought’) is engagement in information-marshalling activity directed at achieving and sustaining relations of cognitive focus. §5 shows how this view generates an accompanying model of communicative use of singular terms.

The first step towards the cognitive focus model is to emphasise a point that is easily overlooked. Though one functional role of *ordinary* beliefs is as inputs to decisions on how to act, they are themselves the upshots of information-marshalling activity: activity in which we marshal incoming information-signal – from perception and from other people’s testimony – into bodies of beliefs that we treat as ‘about’ ordinary things. This point is easily overlooked because concealed by the tendency to focus on states of the subject’s mind – beliefs – rather than the processes that underpin these states.<sup>12</sup> But it surfaces whenever philosophers are talking about the ‘aim’ of belief, by which they really mean the aim of belief *formation*. To say that belief has an aim *just is* to treat belief-formation as an exercise of agency – something we do, rather than something that happens to us.

Philosophers exploring this aspect of the nature of belief have argued that belief-formation aims at truth<sup>13</sup>; that it aims at knowledge<sup>14</sup>; that it aims at narrowing the set of epistemically live possibilities. The cognitive focus model takes off from a different suggestion

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<sup>11</sup> I mean to exclude both non-ordinary subject matters (numbers, bosons) and non-ordinary thoughts about ordinary subject matters.

<sup>12</sup> Though it is not possible to explore this matter here, my own view is that the right metaphysical story will relate occurrent beliefs to belief-forming (and retrieving) activity in terms of the model of ‘stative processes’ motivated at Soteriou 2013 pp. 45-50.

<sup>13</sup> Velleman 2000.

<sup>14</sup> Bird 2019.

about the aim of *ordinary* belief formation: *ordinary* belief-formation is an activity *part* of whose aim is to secure and maintain relations of aboutness to particular things. I argue for this claim elsewhere<sup>15</sup>. To keep this paper to a manageable length, I shall rest with giving it a preliminary and broad-brush motivation.

Note first that empirical findings compel the conclusion that the information-processing that generates our *ordinary* beliefs – uptake from perception; uptake from testimony – is in some sense ‘looking for’ objects. For example, it is widely agreed that formation of perceptual demonstrative beliefs – the beliefs standardly formed by uptake from perception, and expressed using demonstratives like ‘this’ and ‘that’ – requires an attentional perceptual channel which at least seems to the subject to be locked to a particular thing. You do not just stare unfocusedly into the distance and form beliefs you would express using ‘that’; formation of perceptual demonstrative beliefs requires a perceptual experience that registers as an instance of attention to an object.<sup>16</sup> Similarly, it is widely agreed that following what someone is saying involves keeping track of what linguists call ‘discourse referents’ – bundling together utterances as delivering information treated as about the same thing<sup>17</sup>. So if it is to be denied that the securing of aboutness relations is part of the aim of *ordinary* belief-forming activity, the claim will have to be that, though the means by which we seek to fulfil the aim of belief-formation involve looking for objects, whether we find them is incidental to whether this aim is fulfilled.

There is nothing incoherent about the suggestion that a factor that plays a role in a subject’s attempts to fulfil an aim might have no place in the characterisation of what she is aiming for. Consider driving on a country road using the white line that marks its edge to maintain appropriate road position. Your use of the line is embedded in the information-processing story that generates your behaviour, but is merely instrumental to the aim of your activity: the fact that you are using the line releases no motivational pressure; in cases where it is absent – of which there are many, and many nearby – you do things in another way without really noticing.

It is, however, implausible that the a right account of the aim of *ordinary* belief-forming activity will relegate the fact that this activity involves looking for objects to this kind of mere instrumental role. For the fact that it involves looking for objects *does* appear embrangled with the motivational story of *ordinary* belief. Consider how it is often the storyline of an individual that will stay with you out of a whole narrative; how we like to explain even very general points in terms of their significance for individuals; how the wandering mind gravitates towards thought about particular people, places, and things; how, it is the particular thing in a scene, rather than any general aspect of the scene itself, that is the more typical magnet to curiosity. These aspects of cognitive life at least strongly suggest that we do not just end up thinking about particular objects on our way to fulfilling some non-object-involving aim. Rather, the mind needs to think about *things*, and it needs *things* to be thinking about: part of what we are trying to do in *ordinary* belief formation is lock on to particulars as subject matter for thought.

Note that this claim carries no suggestion that the securing and maintaining of aboutness relations is either the sole or a fundamental aim of *ordinary* belief-forming activity. It is compatible with all of the following: *ordinary* belief-forming activity also aims at truth; it also aims at knowledge; it also aims at delivery of representations which will enable reliable

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<sup>15</sup> In Dickie 2015 ch. 3 and Dickie 2020.

<sup>16</sup> This point was first explored in depth in Campbell 2002, but is now widely accepted in accounts of perceptual demonstrative thought.

<sup>17</sup> This is part of ‘Discourse Representation Theory’. See for example Guerts, Beaver, and Maier 2020.

fulfilment of the subject's practical goals; it aims at aboutness only as a means to one or more of these other ends<sup>18</sup>.

So far in this section, I have suggested that ordinary belief-forming activity is (partly) driven by the mind's need to secure and maintain relations of aboutness to things in the world. I shall now show that this initial claim generates a specific view of what these aboutness relations are – an aboutness relation is a relation of cognitive focus.

The argument requires two further premisses, which I shall treat as basic:

ABOUTNESS AND TRUTH – If a belief that  $\langle \alpha$  is  $\Phi \rangle$  is about object  $o$ , it is true iff  $o$  is  $\Phi$ .<sup>19</sup> (If my belief that Agnes is asleep is about my dog, it is true iff she is asleep.)

TRUTH AND JUSTIFICATION – (approximate version) – Justification is truth conducive: the factors that secure a subject's justification for a belief also secure the result that the subject will be unlucky if the belief is not true.

The view of aboutness relations that I am going to propose is reached by taking these two principles – the first connecting *aboutness* and *truth*, the second *truth* and *justification* – and cutting the intermediate terms to deliver a third principle which brings out the significance for accounts of aboutness of the fact that justification is truth-conducive:

ABOUTNESS AND JUSTIFICATION (approximate version) – A body of beliefs treated by a subject as about a particular thing is about object  $o$  iff their associated pattern of justification is conducive to getting  $o$ 's properties right, so that the subject will be unlucky if beliefs justified in this way do not match what  $o$  is like.

Here is an analogy to consolidate what ABOUTNESS AND JUSTIFICATION says. Consider an astronomer (hereafter ' $A$ ') compiling a report from the signal delivered by a telescope focussed on object  $o$ , where  $A$  has no reason to doubt the telescope's reliability. The telescope delivers a stream of data;  $A$  compiles her report: 'It's moving. Its temperature is fluctuating between such-and-such values....' The fact that the telescope is focussed on  $o$  obviously does not guarantee that  $A$ 's report will match what  $o$  is like.  $A$ 's overall situation might involve some unlucky spoiler: a concealed fault in the workings of the telescope; a rare data-distorting anomaly in  $o$ 's part of the sky. But the fact that the telescope is focussed on  $o$  does guarantee the following:  $A$ 's report will match what  $o$  is like *unless some unlucky spoiler intervenes*.

ABOUTNESS AND JUSTIFICATION treats the aboutness of our *ordinary* beliefs as a kind of focus – what I call 'cognitive focus'. In a case where you are attending to an ordinary thing and forming beliefs you would express using 'that', your beliefs are about the thing because the associated means of justification (uptake from your attentional perceptual channel) will deliver beliefs that match what the attended object is like unless an unlucky spoiler intervenes. A parallel story holds for aboutness-relations secured by grasp of ordinary proper names: when you are competent with a proper name, you associate it with a pattern of potential justification; in cases

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<sup>18</sup> I intend the last clause here to accommodate Heck's suggestion that aboutness might be an 'emergent' goal of *ordinary* belief-forming activity: Heck 2017.

<sup>19</sup> 'A belief that  $\langle \alpha$  is  $\Phi \rangle$  abbreviates 'the belief the subject would express by saying  $\ulcorner \alpha$  is  $\Phi \urcorner$ , where ' $\alpha$ ' ranges over ordinary singular terms and ' $\Phi$ ' over ordinary predicates. ' $\Phi$ ' ranges over properties and is braced to ' $\Phi$ ':  $o$  is  $\Phi$  iff  $o$  has the property introduced by  $\Phi$ .



where competence with a proper name puts you in a position to think about a particular, it does so because, unless your situation is unlucky, beliefs justified in this way will match what the particular is like.

Why should ABOUTNESS AND JUSTIFICATION be accepted? The principle is a biconditional: aboutness iff cognitive focus. I shall argue for each direction in turn.

Here is an argument for the left-to-right direction – if aboutness then cognitive focus.

Suppose

**1** S's belief that  $\langle \alpha$  is  $\Phi \rangle$  is about  $o$ .

Add ABOUTNESS AND TRUTH:

**2** If S's belief that  $\langle \alpha$  is  $\Phi \rangle$  is about an object, the belief is true iff that object is  $\Phi$ .

**1** and **2** entail

**3** S's belief that  $\langle \alpha$  is  $\Phi \rangle$  is true iff  $o$  is  $\Phi$ .

Add TRUTH AND JUSTIFICATION:

**4** If a belief is justified, the subject will be unlucky if it is not true.

**3** and **4** entail

**5** If S's belief that  $\langle \alpha$  is  $\Phi \rangle$  is justified, she will be unlucky if  $o$  is not  $\Phi$ .

So we have the left-to-right direction of the ABOUTNESS AND JUSTIFICATION biconditional:

**6** If S's  $\langle \alpha$  is  $\Phi \rangle$  belief is about  $o$ , if the belief is justified, S will be unlucky if  $o$  is not  $\Phi$ .

The argument for the other direction of the biconditional requires a little more detail on the connections between motivational states, behaviours guided by them, and the notions of 'unlucky' failure and 'not merely lucky' success. Drawing on elements of the extant philosophical discussion of action and activity, I shall say that a behaviour is an 'exercise' of competence at fulfilling a motivational state iff it is guided by the state, and is a non-lucky generator of this state's fulfilment. I shall gloss the notion of 'non-luckiness' in terms of success across relevant circumstances: the 'relevant' circumstances are those across which a behaviour guided by a motivational state must generate success if it is to count as an exercise of competence at fulfilling the state; an exercise of competence might fail to deliver success, but only if some unlucky spoiler intervenes, in which case the circumstance is irrelevant. Finally, I shall say that a behaviour 'manifests' a competence iff it is an exercise of the competence in relevant circumstances, in which case the result will be success secured by the subject's exercise of the competence. (Consider a craftsman engaged in some skilled task. He is 'exercising' his competence iff everything goes well with respect to his information processing, so that he will be unlucky not to end up with the intended result. He is 'manifesting' his competence iff he is exercising it in a relevant circumstance, in which case the intended result will be secured by the

fact that he is exercising his competence in a circumstance in which exercise of competence is guaranteed to generate success.)<sup>20</sup>

Stepping from the case of action in general to that of belief-forming activity, I shall take it that a belief is justified iff formed by an exercise of belief-forming competence, and that a belief counts as knowledge iff formed by a manifestation of belief-forming competence. I shall say that a circumstance that is relevant from the point of view of belief-formation is ‘rationally relevant’ (so the rationally relevant circumstances are those across which the means of justification for a belief guarantees its truth).<sup>21</sup>

With this backdrop in place, we can argue for the right-to-left direction of the biconditional (if cognitive focus then aboutness) like this:

**1** It is not sufficient, for S’s  $\langle \alpha \text{ is } \Phi \rangle$  beliefs to be about  $o$ , that the cognitive focus condition be met with respect to  $o$ . [Supposition for *reductio*.]

Given **1**, the following is coherent:

**2** S is forming  $\langle \alpha \text{ is } \Phi \rangle$  beliefs by a means that is tracking what  $o$  is like: there is no spoiler interfering with any ‘detection of  $\Phi$ -instantiation’ aspect of S’s path to these beliefs; there is a object,  $o$ , upon whose  $\Phi$ -ness or not S’s  $\Phi$ -detecting procedures are picking up. But the case is, nevertheless, one of aboutness-failure.

Now add the claim about the aim of *ordinary* belief-forming activity from earlier in the section:

**3** Part of the aim of *ordinary* belief-forming activity is to secure and maintain aboutness relations.

Given **3**, we have **4**:

**4** In the situation described at **2**, S’s belief-forming activity does not fulfil its guiding motivational state.

But a situation in which the behaviour guided by a motivational state fails to fulfil the state is *either* a case of unlucky failure (the subject is exercising competence in securing fulfilment of the goal, but in a circumstance outside the range across which competence secures success), *or* it is a case where the subject is not exercising competence. So **4** entails **5**:

**5** In the situation at **2**, *either* S’s circumstance is rationally irrelevant (it is a circumstance in which exercise of competence at formation of  $\langle \alpha \text{ is } \Phi \rangle$ -beliefs does not guarantee success at this activity) *or* S is failing to exercise competence at formation of  $\langle \alpha \text{ is } \Phi \rangle$  beliefs.

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<sup>20</sup> I adopt the terms ‘exercise’ of a competence and ‘manifestation’ of a competence from Sosa 2015. Compare also Kelp 2017. But I take this general way of looking at activities and non-lucky success to trace to Anscombe 2000.

<sup>21</sup> I take these equivalences to be common across a range of views in virtue epistemology. But I intend no commitment to the priority of the ‘virtue-theoretic’ notions – exercise and manifestation of belief-forming competence; rational relevance – over the notions of justification and knowledge.

But now suppose we keep things as described at **2**, and imagine S forming a <Something is  $\Phi$ > belief instead. It is part of the description of the situation at **2** that S's  $\Phi$ -detecting procedures are picking up on whether or not  $\Phi$  is instantiated. So there are good grounds for **6**:

**6** If S were to move to a <Something is  $\Phi$ > in the situation at **2** situation, this belief would be a case of knowledge.

And given **6**, neither disjunct at **5** is acceptable. We shall show this for each in turn.

**7** In the situation at **2**, S's circumstance is *not* rationally irrelevant to her belief-forming activity. (The first disjunct at **5** is false.)

For a belief is knowledge iff formed by a manifestation of belief-forming competence. So given **6**, we are taking it that in forming a <Something is  $\Phi$ > belief in the situation at **2**, S would be manifesting competence at <Something is  $\Phi$ >-belief-formation. And a circumstance where formation of a belief manifests belief-forming competence *just is* a relevant circumstance in which the belief is formed by exercise of the competence. So to affirm **6** and deny **7** is to endorse the possibility of the following combination:

A circumstance rationally *irrelevant* to formation of the belief that < $\alpha$  is  $\Phi$ > may be rationally *relevant* to formation of the belief that <Something is  $\Phi$ >.

And to endorse this possibility is to suppose that it is harder to know <Something is  $\Phi$ > than it is to know < $\alpha$  is  $\Phi$ >. For example, it is to suppose that a <That is square> belief formed by uptake from a perceptual link might count as knowledge while the <Something is square> belief formed on the same justification does not (because knowing <Something is square> requires a means of belief formation that eliminates extra 'nothing square there' circumstances – circumstances that must be guarded against if a <Something is  $\Phi$ > belief formed on the basis of perception is to count as knowledge, but which may be ignored in moving to <That is  $\Phi$ >). Now consider the standard introduction rule for the existential quantifier:

<i>Existential Generalisation</i>	$\alpha$ is $\Phi$ ————— Something is $\Phi$
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If it is harder to know <Something is  $\Phi$ > than to know < $\alpha$  is  $\Phi$ >, this move is illegitimate. Obviously this is not the beginning of a discovery ('Existential Generalisation is invalid!'). It is reduction to absurdity of the combination that generates it: **6** and the first disjunct of **5**.

**8** In the situation at **2**, S *is* exercising competence at formation of < $\alpha$  is  $\Phi$ > beliefs. (The second disjunct at **5** is false.)

For consider the standard elimination rule for the existential quantifier:

<i>Existential Elimination</i>	Something is $\Phi$ $\beta$ is $\Phi$ [arbitrary $\beta$ ] : p
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(From $\ulcorner$ Something is $\Phi \urcorner$ and a derivation of $p$ from $\ulcorner \beta$ is $\Phi \urcorner$ for arbitrary $\beta$ , conclude $p$ .)	$p$
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Use of this rule is legitimate only if  $\ulcorner$  Something is  $\Phi \urcorner$  and  $\ulcorner \beta$  is  $\Phi \urcorner$  require the holding of the same kind of object-property relation for their truth: affirming  $\ulcorner$  Something is  $\Phi \urcorner$  has to be affirming that *some member of the domain is  $\Phi$* ; otherwise it is not legitimate to let a claim that some arbitrary member of the domain is  $\Phi$  go proxy for the quantified sentence in working out its consequences. And now suppose we deny **8**, maintaining that in the situation at **2** S is failing to exercise competence in formation of  $\langle \alpha$  is  $\Phi \rangle$  beliefs. In the situation at **2**, S's  $\Phi$ -instantiation-detection proceeds as it does *because* S is taking the incoming signal and using it as input to  $\langle \alpha$  is  $\Phi \rangle$  belief formation. So if we suppose that S is not exercising competence in forming this kind of belief, we have no right to the claim that her  *$\Phi$  is instantiated!* verdicts are picking up on the same object-property relation as holds in cases where she knows that  $\langle \alpha$  is  $\Phi \rangle$ . But given **6**, we are taking it that S's path to her  *$\Phi$  is instantiated!* verdict in the situation at **2** does sustain knowledge that  $\langle$ Something is  $\Phi \rangle$ . So if we keep **6** but deny **8**, we are taking it that the conditions for knowing  $\langle$ Some things is  $\Phi \rangle$  falls short of those for knowing that *some member of the domain is  $\Phi$* . And in that case we must give up the claim that Existential Generalisation is valid in the realm of ordinary thought. Again, this is (obviously) not the beginning of a discovery. It is reduction to absurdity of the second disjunct.

The **1 – 8** argument gets us the conclusion that a situation where there is cognitive focus is one where there is aboutness. But we do not yet have the right-to-left claim that we want – the claim that where a stream of belief-forming activity is focussed on  $o$ , the resulting beliefs are about  $o$ . For nothing so far rules out the following possibility: S's cognitive-focus-sustaining information-marshalling activity is focussed on both  $o$  and some  $o^* \neq o$ ; the resulting beliefs are about  $o$  but not  $o^*$ .

How is this gap to be closed? That is the question I shall address in the next section. The answer will also bring into view the initial details of the cognitive-focussed based solution to the puzzle from §2.

#### §4 Cognitive focus (II) – fineness of grain

The end of the previous section brought out what is, in hindsight, a predictable wrinkle in the cognitive focus framework. A focus relation has a degree of resolution: increase the power of your telescope, and what registered as one object at coarse resolution may resolve into many. This does not entail that coarse-grained focus is not genuine focus: it is genuine focus; but it is coarse-grained. The parallel claim holds for cognitive focus. A strand of belief-forming, aboutness-seeking activity is focussed on  $o$  iff, across the range of properties the subject is in the business of deciding, it will generate beliefs that match what  $o$  is like unless an unlucky spoiler intervenes. This condition may be met by both  $o$  and some  $o^* \neq o$ , in which case the subject is sustaining a relation of cognitive focus at a degree of resolution that does not distinguish  $o$  from  $o^*$ . So there is nothing in the notion of cognitive focus to rule out the possibility that a strand of belief-forming activity is cognitively focussed on more than one thing.

What should we make of the relation between aboutness and cognitive focus given, on the one hand, the connection uncovered in the previous section and, on the other, the fact that a

stream of belief-forming activity might be focussed on more than one thing? I suggest that what we have here is a deeper anchor for a familiar point. Consider this from Quine:

In general we might propound this maxim of the *identification of indiscernibles*: Objects indistinguishable from one another within the terms of a given discourse should be construed as identical for that discourse. More accurately: the references to the original objects should be reconstrued for the purposes of the discourse as referring to other and fewer objects, in such a way that indistinguishable originals give way each to the same new object. [Quine 1953 p 71]

Suppose we want an account of what the speakers of some language are saying. And suppose we have a candidate account which treats them as ascribing some array of properties to some domain of objects, where the domain divides into (non-singleton) subsets whose members instantiate all the same properties (members of the same subset are ‘indistinguishable from one another within the terms of [the] discourse’). Then, according to Quine, we should move to a new, coarser-grained account: where the old account treats speakers as talking about distinct objects  $\{o_1, \dots, o_n\}$  converging in their properties, the new account treats them as talking about a single, coarse-grained object. This move is dictated by demands of simplicity. For every  $\Phi$  the speakers might ascribe, and every  $o_i$  and  $o_j$  in the same subset,  $o_i$  is  $\Phi$  iff  $o_j$  is. So the distinction between  $o_i$  and  $o_j$  is idle in the assignment of sentences in the language to situations in which they are true.

The cognitive focus framework generates a deeper anchor for a parallel constraint. A toy case will help bring out how this is so. Suppose you fire a laser-pulse at a target. And consider these two questions:

*Question 1* – What did you hit?

*Question 2* – What were you aiming at?

In answering *Question 1*, the constraints on fineness of grain come from metaphysics, and from pressures towards answering a question in a way that respects the reason it was asked. From the point of view of metaphysics, the account of which object (exactly) you hit could be as precise as the boundary between the region burned by the laser-pulse and the region left unscathed. So, from this point of view, we might distinguish a case where you hit some very fine-grained object from one where you hit another that is identically shaped but displaced by a few microns. This level of fineness of grain in the answer to *Question 1* is metaphysically coherent as long as we allow the existence of the fine-grained objects in the first place. Whether it is *appropriate* depends on why we were asking the question. If all we wanted to know was whether you hit some coarse-grained target which could be hit by hitting any one of a range of fine-grained objects, a fine-grained answer to *Question 1* fails to respect the reason the question was asked.

The constraints from metaphysics and the pragmatics of question-answering also apply to *Question 2*. But here there is an additional factor. The fineness of grain of an answer to *Question 2* is also constrained by the level of resolution of your aim-and-fire mechanism. If  $o$  and  $o^*$  are objects so similar that the you would use the same parameter settings to aim ‘at’  $o$  as ‘at’  $o^*$ , the suggestion that you were aiming at one rather than the other dissolves into incoherence. Taking (competent) aim at a target *just is* setting parameters that will generate a hit on the target unless the situation is unlucky. The facts of the matter as to what you are aiming at cannot be finer-grained than the distinctions between parameter settings that determine them.

Quine-type invocation of the match-in-grain constraint mirrors what we have said about *Question 1*. According to philosophers making this kind of move, preference for the coarse-grained account is generated by an appeal to simplicity. An account of which objects thinkers or speakers are representing should be no finer-grained than it must be to explain their behaviour; an account which treats subjects as thinking or speaking about objects indistinguishable relative to the properties they ascribe (or the predicates they apply) fails this simplicity criterion.

In contrast, the cognitive focus framework generates a match-in-grain constraint that mirrors what we have said about *Question 2*. In this framework, thinking about an object *just is* sustaining a relation of cognitive focus upon it: it is maintaining a body of  $\langle \alpha \rangle$  beliefs in such a way that, given how they are justified, you will be unlucky if these beliefs do not match what the object is like, and not merely lucky if they do. So the question ‘What are your beliefs about?’ is a disguised version of a direct parallel to *Question 2*: ‘What is your belief-forming activity focussed on?’ If  $o$  and  $o^*$  are sufficiently similar, relative to the range of properties you are in the business of deciding and accessibility to your means of justification, that (in intuitive terms) the means of justification generates beliefs that tend to match both of them, the suggestion that you are focussed ‘on’  $o$  rather than  $o^*$  is incoherent. You are focussed at a resolution at which  $o$  and  $o^*$  are not distinct.

A second difference between Quine’s treatment of fineness of grain and the cognitive-focus-based parallel concerns the range of cases across which the respective constraints bite. Quine’s constraint is triggered by duplication: if  $o$  and  $o^*$  coincide with respect to satisfaction or not of all the predicates deployed (or deployable) in a discourse, an account of the subject-matter of the discourse should be framed in a way that does not distinguish them. In the cognitive focus framework, in contrast, the constraint is triggered iff the means of justification associated with a single stream of  $\langle \alpha \text{ is } \Phi \rangle$ -belief-forming activity converges on both  $o$  and  $o^*$ . This is a stronger condition than mere duplication. To see this, suppose I am maintaining a body of  $\langle \text{that} \rangle$  beliefs justified by uptake from an attentional perceptual link with a particular ball being kicked around in the park. My means of justification for the beliefs converges on this particular ball – I will be unlucky to get its properties wrong and not merely lucky to get them right. For all I know, the ball might have an exact duplicate elsewhere in the universe. But my means of justification – uptake from my perceptual attentional link with this particular ball – converges on *this* ball, and not any distant duplicate: as far as my means of justification is concerned, the existence of a duplicate ball being attended to by a duplicate of me is a mere matter of chance.

Though non-unique justificatory convergence is a stronger condition than mere duplication, it is relatively widespread in our cognitive lives. In fact, there are views of the metaphysics of ordinary objects which – if accepted – entail its ubiquity in *ordinary* thought. Suppose we say that an ordinary object *just is* an appropriately causally unified parcel of matter, and accept what is often held to be a consequence of this claim: each ordinary object is ‘really’ many almost-but-not-quite identical objects, differing very slightly at the microscopic level. (The point is that if we grant that the dog *just is* an appropriately unified parcel of matter, we will find no grounds for identifying her with one specific such parcel, rather than many others that are equally unified, macroscopically the same, but microscopically different.<sup>22</sup>) If we allow this conclusion, every case of cognitive focus on an ordinary object is really a case of non-unique cognitive focus. Consider ordinary object  $o$  (for example, my dog), and the corresponding set of almost-identical objects differentiated at the microscopic level,  $\omega_1, \dots, \omega_n$ . At the level of grain at

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<sup>22</sup> This is the ‘problem of the many’ For a canonical discussion see Lewis (1999). For a general introduction and survey of responses see Weatherson (2014). I discuss the problem in more detail at Dickie 2015 pp 27-34.

which we usually operate, the level of ascription of macroscopic properties, the  $\omega$ 's are indistinguishable: for each such property  $\Phi$  and each  $\omega_i$ ,  $\omega_i$  is  $\Phi$  iff all the other  $\omega$ 's are too. And ordinary means of justification for an  $\langle \alpha$  is  $\Phi \rangle$  belief that converge on one microscopic  $\omega$  converge on all the  $\omega$ 's corresponding to the same macroscopic ordinary thing. So if we start from a background metaphysics which recognises the existence of a cloud of  $\omega$ 's for every  $o$ , even a flat-footed case – a case where you are attending to an ordinary thing and forming beliefs you would express using  $\langle$ that $\rangle$  by uptake from your attentional perceptual feed – is a case where explaining what the beliefs are about will involve an appeal to coarse-grained cognitive focus: your cognitive focus is at the level of resolution of  $o$  rather than the underlying  $\omega$ 's, so it is in terms of  $o$  not the  $\omega$ 's that we explain what your thoughts are about.

Coarse-grained cognitive focus obtains wherever the range of properties the subject counts as in the business of deciding, and the means of justification she would deploy in deciding them, entail that the subject's paths to justification for  $\langle \alpha$  is  $\Phi \rangle$  beliefs converge on more than one thing. In some cases – most obviously that of thought about ordinary objects – we are happy to allow the existence of coarse-grained objects as the things subjects' thoughts are about. In others, the issue is more vexed. There are many cases where the means of investigation actually or potentially available to a subject will sustain only conclusions that apply to all members of a group. For example, consider an historian discussing some event so ancient that it is impossible to draw conclusions about its participants 'as individuals', but trying to make the story vivid for an audience. 'Consider the average casualty of the battle,' says the historian. 'Let's call him "Bob". He would have been between fifteen and thirty five years old. He spoke Common Brittonic. He probably ate some beef and pork, and a lot of barley....' Assuming that the historian is suitably competent, the investigation sustains a focus relation at a degree of resolution that does not distinguish one participant in the event from another. Is there a specific coarse-grained (abstract) object – the average participant in the battle – upon which the historian is sustaining coarse-grained focus? If there is, the case sits alongside what we have said about an ordinary object and its underlying cloud of  $\omega$ 's. If there is not, the historian's situation must be described with additional care: she is sustaining an aboutness relation, but at a level of resolution too coarse to license the claim that she is thinking about some particular thing.

The solution I want to propose to the puzzle from §2 is now visible in the middle distance. Felicitous non-specificity in our uses of ordinary singular terms is a predictable consequence of the kind of thought we use such terms to express: thoughts the thinking of which involves engagement in cognitive activity directed at securing and sustaining cognitive focus. Patterns of specificity and non-specificity in our ordinary uses of singular terms rest on shifts in the resolution of the underlying cognitive activity.

But to bring out the details of this proposal, I must first extend the cognitive-focus-based story about thought into a story about linguistic communication. That is the task of the next section.

## §5 Communication

The last two sections have argued for an account of ordinary thinking about ordinary things built around what I have called 'cognitive focus'. I shall now extend this proposal into an account of the communicative use of ordinary singular terms. Let us suppose that communication involves some kind of 'sharing' of thoughts (exactly what this 'sharing' comes to is part of what

is at issue). I have argued that thinking a thought of the kind standardly expressed using an ordinary singular term is engagement in a cognitive-focus-directed information-marshalling activity. This suggests that we should be looking for an account of the communicative use of singular terms built around the notion of a corresponding *shared* activity: speakers understand one another's uses of a singular term in a conversation iff, in using it as they do, they are exercising competence at sustaining a relation of joint cognitive focus.

This section argues for a more precise version of this rough proposal. The final section compares the resulting view of mutual understanding of singular terms to the standard picture.

I shall join many others in taking it that a hearer's cognitive response to the speaker's utterance is determined by two kinds of calculation, which I shall call 'update calculations' and 'uptake calculations'. In intuitive terms, 'update calculations' determine what the hearer's cognitive response would be if she *were to* go along with speaker's utterance. 'Uptake calculations' determine whether she *will* go along with it – whether she will make the move that her update calculations register the utterance as proposing. For example, if I form a belief by taking what you say at face value, my update calculation determines which belief I form, but it is only because my uptake calculation registers you as speaking sincerely and reliably that I actually form it. Similarly, if your utterance is an imperative, my update calculation determines the intention that I take you to be proposing I form, but whether I form this intention depends on my uptake calculation. In the case of an imperative, this will involve weighing your sincerity; whether you are in an appropriate position to direct an imperative to me; and whether the proposed intention is consistent with my existing attitudes.

I shall also suppose some backdrop connecting, the notion of linguistic competence with what it takes for speakers to express themselves and hearers to understand. In any case of conversation, we can regard participants as using language to do something – that is, as harnessing linguistic competence to the furtherance of the goals that guide their participation. Obviously many things might go wrong with respect to each participant's pursuit of these goals. I shall take it that the speaker succeeds in expressing herself by making an utterance iff, whatever else might go wrong on the speaker's side of the transaction, nothing *linguistic* goes wrong: the speaker's production of the utterance is a manifestation of linguistic competence. (Recall that an outcome 'manifests' a competence iff it is secured by an exercise of the competence.) I shall suppose the mirror-image claim for the hearer's side of the transaction: the hearer understands the utterance iff, whatever else might go wrong for the hearer, nothing *linguistic* goes wrong. I shall suppose that whether a hearer's response to an utterance is an instance of understanding (a manifestation of linguistic competence) depends on her update calculations, not her uptake calculations: understanding an utterance is one thing; going along with it another. And I shall take it that linguistic communication *just is* what happens when a speaker expresses herself by making an utterance which the hearer understands. It follows that a case of communication *just is* a case where, if something goes wrong in participants' attempts to fulfil their goals, it is not something linguistic: if you are expressing yourself and I understand you, but one of us is not getting what we want out of the exchange, some non-linguistic factor is to blame.<sup>23</sup>

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<sup>23</sup> I am treating language understanding as requiring recovery of what Gricean frameworks call the 'total signification' of an utterance, and remaining neutral on what role (if any) there might be for a notion of knowledge of 'what is said' where this is regarded as a purely semantic achievement. This notion retains a role in contemporary 'minimalist' frameworks (Borg 2012) but is left behind by contemporary contextualists (Recanati 2010).



Finally, I shall make a supposition connecting what is involved in understanding an expression across utterances made with different illocutionary force: differences in the illocutionary force with which a token sentence is uttered (whether it is being used to ask a question; issue an imperative; or make an assertion) do not impact what is involved in understanding a lexically simple expression occurring within it.<sup>24</sup> So, for example, though you calculate different updates in response to my utterances ‘Agnes has had dinner,’ and ‘Has Agnes had dinner?’, the ‘Agnes’ parts of your update calculations are the same. You deploy your competence with the name as used by me in generating one kind of update when you register me as making an assertion and another when you register me as asking a question, but these are distinct deployments of the same competence embedded in different overall calculations.

I shall now argue for a conclusion about what is required to understand a stream of assertions containing an ordinary singular term, and use the last supposition to upgrade this conclusion into a requirement on communicative uses of these terms in general.

I shall start with what I shall call ‘no-suspicious’ cases of response to a stream of assertions containing an ordinary singular term: cases where the hearer is treating the assertions as inputs to ordinary belief-forming activity in a situation which trips no sincerity or reliability alarm, so that in forming the beliefs the hearer is going along with the updates she takes the speaker to be proposing. (For example, I say ‘Agnes is two years old. She’s medium-small. She’s very athletic, and affectionate, but a bit prone to over-excitement and afraid of other dogs.’ You form the corresponding beliefs.) Given materials already in place, we can argue as follows:

**1** Part of the hearer’s aim in a no-suspicious case is to respond to the incoming stream of assertions in a way that secures and sustains a cognitive focus relation. (This follows from the facts that the hearer’s response involves ordinary belief-forming activity; part of this activity’s aim is to secure and sustain aboutness relations; and aboutness relations are cognitive focus relations.)

**2** Where a hearer understands a speaker’s utterance, the hearer’s calculation of the proposed update is a manifestation of linguistic competence, so that any failure to fulfil her aims in engaging in the conversation traces to non-linguistic factors.

Therefore

**3** In a no-suspicious case, the hearer understands the incoming assertions only if her update calculations secure the result that, unless some non-linguistic factor intervenes, in forming beliefs as she does, she is sustaining a cognitive focus relation. [From **1** and **2**]

For example, **3** says that if you both understand and go along with my ‘Agnes’ assertions, your update calculations secure the result that, as long as you are also exercising competence at assessing my sincerity and reliability, you will be unlucky if there is not an object whose properties your resulting beliefs get right. In other words, if you understand me and form beliefs by uptake from my utterances, but the beliefs you form fail to be about anything, something other than your linguistic competence is to blame.

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<sup>24</sup> I intend this claim to be read consistently with Recanati’s ‘semantic flexibility’ thesis (Recanati 2010 43 – 6), according to which the ‘standing meaning’ of a lexical simple is constant, but its contribution to the update carried by a token sentence containing it is its ‘modulated meaning’, where this is determined by various features of the context, including the illocutionary force of the token sentence.

**3** is a conclusion about no-suspicious cases only – cases where a hearer is forming a body of beliefs by uptake from a series of assertions containing a singular term. But we are supposing that understanding depends on update calculations not uptake calculations. If you and I both understand an assertion, but you go along with it and I do not, our uptake calculations are different, but our update calculations the same. This lets us generalize **3** to a condition on understanding across all cases where a suitable backdrop *could* lead a hearer to move from calculation of the update to a belief formed by going along with it:

**4** A hearer's update calculations secure understanding of a stream of assertions only if, in any situation where she moves to belief by uptake from the same update calculations, and which differs from the actual situation as little as is consistent with this condition, her update calculations meet the requirement at **3**.

For example, suppose you do not go along with my 'Agnes' assertions: perhaps you have registered them as insincere. **4** entails that you nevertheless understand them only if nearby cases where you make the same update calculations but *do* go along with my assertions are cases where, if you are exercising competence at assessing my sincerity and reliability, you will be unlucky if there is not some object whose properties you are getting right by responding to my utterances as you do.

We are also supposing that understanding an expression is a manifestation of the same competence regardless of whether it is being used to ask a question, make an assertion, or perform an illocutionary act of some other kind. So **4** generalizes to **5**:

**5** A hearer understands an utterance containing an expression only if the part of her update calculation concerned with this expression proceeds the same way it does in situations where she calculates updates in response to a stream of assertions containing the expression which she understands, and which otherwise differ from the actual situation as little as is consistent with this condition.

For example, **5** says that you understand my use of 'Agnes' in 'Have you seen Agnes?' only if, in calculating an update from my utterance, you treat the name the way you would treat it in a nearby situation in which you understood a stream of assertions containing it.

Combining **3** – **5**, we get a necessary condition on understanding a token ordinary singular term:

**6** If a hearer understands ordinary singular term  $\alpha$  as used in context  $c$ , the part of her update calculations concerned with  $\alpha$  meets the following requirement: in all  $c^*$  where her update calculations treat  $\alpha$  the same way while she is engaged in no-suspicious uptake from a stream of  $\alpha$ -containing assertions, and which otherwise differ from  $c$  as little as is consistent with this condition, as long as she is exercising competence in tracking the speaker's sincerity and reliability, she will be unlucky if there is no object whose properties she is getting right by forming beliefs as she does.

I shall abbreviate the result at **6** by saying that a hearer understands an ordinary token singular term only if her update calculations involving it ‘tend towards’ cognitive focus. This note<sup>25</sup> considers some points of detail.

Given **6**, if you and I understand one another’s uses of a singular term, each of us is making update calculations that tend towards cognitive focus. But there is no requirement that either of us be *achieving* focus on anything. (This is the starting-point for a cognitive-focus-based treatment of understanding of empty singular terms.) Nor is there a requirement that, in a situation of mutual understanding where each protagonist is sustaining cognitive focus, there is some one object upon which both are focussed. But **6** does combine with a cognitive-focus-based characterization of assertions containing ordinary singular terms to entail a nearby claim. In the cognitive-focus framework, an ‘ $\alpha$  is  $\Phi$ ’ assertion is a report from inside the speaker’s own focus-directed information-marshalling activity. But if I am forming beliefs by careful uptake from your assertions, and these assertions are reports from inside your focus-directed belief-forming activity, my belief-forming activity can be focussed on object *o* only if yours is: if your belief-forming activity is not focussed on *o*, then even if you are sincere and reliable, if I form beliefs by careful uptake from your utterances, it will be merely lucky if these beliefs match what *o* is like. So, though we do not have the claim that speakers who understand one another’s uses of a singular term are using it to talk about some one thing, we do have a nearby but weaker claim: where speaker’s understand one another’s uses of a singular term, each speaker is using it to talk about *o* iff the other is.

I have argued that a hearer understands a speaker’s uses of an ordinary singular term only if her treatment of it in making update calculations tends towards cognitive focus. If this is a right result, it should be possible to point to various features of our update calculations, and explain how they contribute to meeting this requirement. I shall consider one such feature – a familiar feature of our update calculations whose importance the cognitive focus framework shows in a new light.

In forming beliefs by careful uptake from other people’s utterances, we make constant adjustments to allow for the fact that these utterances are made from perspectives other than our own. For example, if I describe NN as ‘short’ and you take me at my word, you will not just update your body of <NN> beliefs by adding <NN is short>, where the standards for shortness are your own or some ambient standards. Your update will tether the standards for shortness to those I am likely to be counting as appropriate – factors like how tall I am; whether I have just been discussing, or habitually discuss, basketball players; whether I live among taller-than-average people; and so on. If you are not in a position to reach an ‘appropriate standards’ calculation as part of your update verdict, you will leave the standards for shortness that you take to be carried by the update I am proposing appropriately imprecise. Similarly, if I say that NN is ‘probably’ going to show up for some event, your update will treat the appropriate standards of likeliness as sensitive to factors that might impact my threshold for application for ‘probably’, for example, how much I take to be at stake for myself and for you in whether or not NN shows up. If I, broken-record-like, deliver a stream of utterances concerning just one aspect of NN’s

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<sup>25</sup> (a) **6** applies only to ordinary singular terms, not to, for example, names for numbers. (b) If there are no *c\** in which S engages in no-suspicious updates while treating  $\alpha$  in the same way, the requirement in **6** is met trivially. But the requirement is only a necessary condition on understanding of ordinary singular terms, so nothing follows as to whether S understands  $\alpha$  in such a case. (c) Usual issues about the identification of processes across situations arise, but nothing in this paper depends on which among the usual pathways through these issues is to be preferred. (d) A full discussion would precisify the notion of the ‘part of’ an update calculation concerned with a expression, but I cannot pursue this matter here.

narrative arc, you do not update your body of <NN> beliefs in a way that supposes that this is the most important aspect of what NN is like: you adjust for the fact that I am telling you what is, at the time, uppermost from my point of view. In these and many other ways, when you use my NN utterances as a source of input to your body of <NN> beliefs, your language-understanding information-processing is making automatic adjustments to take account of the fact that my NN utterances are coming from my perspective.

In exchanges involving perceptual demonstratives, we engage in an extra layer of adjustments to allow for the speaker's perceptual point of view. If you are listening to me describe something I can see and you cannot (perhaps we are talking on the phone), you update the body of beliefs you are maintaining in response to my utterances in a way that is adjusted to what you know of the basic aspects of my perceptual perspective. Suppose I say 'It's really near.' How near you take 'near' to be will depend on (among other things) whether you take me to be outside looking across some reasonably open scene, or in an average-sized room. And in the case of perceptual demonstratives, a factor that is also present in our uses of proper names emerges more prominently: often, speakers express their beliefs in ways that minimize the difficulty of the adjustments the hearer must make. An ordinary adult speaker using a perception-based demonstrative to talk about something visible to both speaker and hearer will not usually describe the thing as 'moving away' when it is moving away from the speaker and towards the hearer, or as 'to the left' when it is on the speaker's left but the hearer's right.

This general point is familiar from discussions of what it takes to be competent with ordinary predicate expressions.<sup>26</sup> But in the cognitive focus framework, it emerges as central to an account of our understanding of singular terms. Without this kind of adjustment for the speaker's perspective, even if the speaker is sincere, reliable, and talking about some particular thing, it will be a matter of luck if the hearer, forming beliefs by uptake from the speaker's utterances, ends up with beliefs that match what this thing is like. It is only where each participant's update calculations include adjustments for the other's perspective that careful uptake from the other's utterances is a cognitive-focus-sustaining means to belief-formation.

And in recognizing this point, we have arrived at the aspect of the cognitive-focus-based view of communication using singular terms that it is the main burden of this section to establish. Communicative use of singular terms involves joint cognitive focus. Participants in a communicative assertion exchange incorporate elements of one another's perspectives into the calculations which determine the updates each takes the other to be proposing: to understand you I must let elements of your perspective determine aspects of my calculations of the updates associated with your utterances; to understand me, you must do the same. (Compare the structure of a 'relational' account of joint perceptual attention<sup>27</sup>. According to this kind of account, when you are engaged in joint attention, the presence of someone else, also attending to the object, and responding to the fact that you are doing so, is part of the story of the information-processing that generates your perceptual-attentional experience. I am suggesting a parallel structure for understanding of singular terms. Understanding someone's uses of a singular term is not a matter of processing their utterances against a background in which the speaker figures as one among other aspects of the scenery. It requires incorporating aspects of the speaker's perspective into the parameter settings that determine how your update calculations go.)

There are many points at which questions might be raised about this proposal; many details requiring further development; and many applications to explore. Though I cannot

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<sup>26</sup> See for example Recanati 2010 49–76; Szabo 2001.

<sup>27</sup> As developed in Campbell 2002 157–176.

embark on a full discussion here, I hope to have explained the proposal in sufficient detail to enable the reader to see one application: the solution to the puzzle from §2.

The puzzle was raised by cases like this:

2c That's beautiful. It's a bit dinged up. It's fantastic to drive though – it's the car I learned in.

In §2, we saw the problem this kind of case raises for the standard picture of communication using singular terms. Within that picture, the resource available to deal with non-specificity in the first sentence is to say that 'that' is used ambiguously – it might refer to the car token or the car type. The second sentence can then be treated as resolving the ambiguity in favour of the token. But this leaves us with no account of how the third sentence is bringing non-specificity back.

I have already sketched the solution to this problem that I want to propose.

Communication using a singular term involves joint cognitive focus. And a focus relation has a degree of resolution which can vary as focus-sustaining activity proceeds. So 2c illustrates a pattern that the cognitive focus framework predicts: speaker and hearer start at a coarse resolution; zoom in to a finer one; then zoom out again.

With the discussion of this section in place, it is possible to add some detail. In the cognitive focus framework, when speakers engaged in a no-suspicious to-and-fro of assertions understand one another, each is engaged in an information-marshalling activity which takes the other's utterances as inputs, incorporates aspects of the perspective from which they are being made, and generates beliefs treated as expressible using the singular term, where part of the aim is that all this happen in a way that sustains a relation of cognitive focus. One aspect of the speaker's perspective of which the hearer must be keeping track to fulfil this aim is the resolution at which the speaker is operating. For example, suppose that your  $\Gamma \alpha$  is  $\Phi \Upsilon$  utterances are reports from within an activity that is tracking the microscopic properties of some fine-grained  $\omega$ . So when you say 'It's changed a lot in the last while,' you mean that there has been a change that is large in microscopic terms. If I treat your utterance as input to an activity that is focussed at macroscopic resolution, I will form a belief that ascribes a large macroscopic change: because I have failed to adjust for resolution, my means of belief-formation is not tracking what the thing you are focussed on (or anything else) is like.

But we saw in §4 that the resolution of a cognitive focus relation is explained in terms of the range of properties treated as up for decision in the associated information-marshalling activity: shifts in resolution are shifts in this parameter. So we now have an account of the predicate-sensitivity of non-specificity phenomena. Felicitous non-specificity arises when, given the range of properties treated as up for decision in the phase of joint-focus-directed activity in which the speaker is soliciting the hearer's participation, this activity is focussed on more than one object. The availability of a non-specific reading of a token singular term depends on the predicate with which the term is combined because this is part of what determines the relevant range of properties. Given only the first sentence of 2c, the speaker has done nothing to expand the range of properties beyond some comparatively impoverished set carried in by the use of 'beautiful': properties that might be instantiated either by a car token or a car type. The second sentence expands the range of properties, thereby increasing the resolution of the focus relation. At the third sentence, the range is restricted again: speaker and hearer are zooming out.

The barrier to an ambiguity-based account of 2c was that if we treat the shift from non-specificity in the first sentence to specificity in the second as resolution of ambiguity, we will

have no account of why there should be a shift back to non-specificity in the third. So it is important to see how the current proposal does better in this regard. According to the cognitive focus framework, part of what guides a hearer's cognitive response to an assertion containing an ordinary singular term is a motivational state directed at securing and sustaining cognitive focus. Though we will almost always be attempting to fulfil other goals as well, to say this much is to acknowledge a role for cognitive focus in an account of why our language-understanding information-processing proceeds as it does. But, in general, the higher the resolution of a focus relation, the more work required to secure and sustain it. So one way to restrict the expenditure of information-processing resources in language understanding is to avoiding trying to focus as a higher resolution than you must. The cognitive focus based model of understanding of singular terms therefore predicts that, unless there is something to prevent our doing so, we will tend to drift from finer-grained focus to coarser-grained – staying focussed without expending unnecessary effort to do so. 2c-type-cases therefore emerge as supporting the model by matching this prediction.

## 6 The standard picture as a limiting case

I shall close by considering how far the proposal of this paper really departs from the standard view.

The suggestion I shall make takes its shape from a point commonplace in discussions of theory change in the history of science.<sup>28</sup> Consider a case where a theory with reasonable-looking foundations and considerable predictive success encounters phenomena it seems unable to explain, prompting a search for, and move to, a new theory. Though it would, notoriously<sup>29</sup>, be over-reaching to uphold a universal version of this claim, in many instances the move from the initial theory to its successor conforms to a satisfying pattern. Taking the successor theory, and restricting some parameter values, we recover the laws of its predecessor: the new theory 'contains its predecessor as a limiting case'. For example, applying the Theory of Relativity to comparatively massive objects moving at speeds much slower than the speed of light, we 'recover' Newton's laws of motion.

It is perhaps not hard to see how this general pattern might apply to the discussion of this paper. We have an initial family of theories, grouped under the label 'the standard picture' of the communicative use of singular terms. Each of these theories has foundational principles that appear plausible when approached from a suitable direction. And each enjoys considerable predictive success. But there are phenomena, for example, the dynamic specificity pattern described in §2, that theories in this initial family seem unable to explain. The cognitive-focus-based proposal is a candidate successor theory that *does* explain this phenomenon. It remains to show how the standard picture re-emerges from the new proposal as a limiting case.

What comes next will depend on which version of the standard picture we are trying to recover. And perhaps it will turn out that there are distinct, but equally compelling, stories to tell

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<sup>28</sup> This proposal is an instance of the kind of model of how views in philosophy of language that step away from various idealisations might relate to their predictively successful predecessors floated in Stanley and Beaver 2019.

<sup>29</sup> 'Convergent realism' in the philosophy of science is built around the suggestion that a strong version of this claim (according to which we recover not only the generalisations but also the referential relations of the predecessor theory) holds across a sufficiently wide range of cases. This is the target of the famous attack in Laudan 1981. Even the weaker claim in the text cannot be held to apply to *all* cases where what looked for a while like a good theory is supplanted by a successor.

for different versions of the standard view: restrict the new proposal's parameters one way and get Frege's story; restrict them another and get Stalnaker's. Obviously it is not possible to explore the options here in detail. I shall rest with gesturing towards a rough-cut of what I want to propose.

Recall that the 'update' associated with an utterance is the cognitive move the hearer will make if she both understands it and goes along with it: if you understand my utterance but do not go along with it, you recognize but reject the update I am proposing. In the cognitive focus framework, a speaker making an assertion containing a singular term is offering the hearer an update that has two components<sup>30</sup>:

- (a) The speaker is either proposing or endorsing participation in an information-marshalling activity associated with the singular term, and directed at securing and sustaining a relation of joint cognitive focus.
- (b) The speaker is proposing a move within this activity.

So, for example, if I make an assertion containing a proper name that is new in the conversation, I am (a) proposing that you join me in associating the name with an information-marshalling activity which takes utterances containing the name as input, delivers beliefs expressible using it as output, and is directed at securing and sustaining a relation of joint cognitive focus; and (b) proposing a move within the activity. (If the proper name is already in play in the conversation, the (a)-part of the update involves endorsement of continuation in an existing activity, rather than proposed initiation of a new one.)

This aspect of the cognitive focus framework foregrounds its continuity with the tradition of 'expressivist' views, opposed to the suggestion that characterization of the proposed update associated with an assertion must be built around an account of an associated representational content (the 'proposition' that the speaker is proposing the hearer accept). The cognitive focus framework allows us to recognize that there are uses of singular terms that are in no way defective – they are perfectly understandable by the hearer – even though there is no specific representational content that the speaker is attempting to communicate. Non-specificity cases like those discussed in this paper are one example. Another is the introduction of singular terms into a conversation when the work of getting a focus-directed activity up and running is still to do. ('What's that?' you say, pointing to some 'thing' visible only as a speck on the horizon – a 'thing' which might turn out to be nothing at all, without rendering your use of the demonstrative defective.) In cases like these, according to the cognitive focus framework, the speaker is proposing that the hearer join (or continue in) a focus-directed information-marshalling activity associated with the singular term, but the focus relation will be established as the activity unfolds.<sup>31</sup>

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<sup>30</sup> Compare the following proposal about gradable adjectives (Charlow (forthcoming)): when I say 'John is tall' I am proposing an update which has a prescriptive component (I am proposing that we treat only thresholds which include John as acceptable thresholds for tallness) and a descriptive component (I am saying that John meets every contextually acceptable threshold for tallness). This proposal makes fully explicit the prescriptive aspect of the update proffered by the utterance which is trying to come to the surface at, for example, Ludlow (2014) p 113. Similarly, compare Charlow's account of imperatives (Charlow (2014), (2018)): If I utter an imperative ('p!') I am proposing an update with a prescriptive component (I am proposing that you adopt a plan P (relative to which p is to be preferred) and a descriptive component (I am saying that, relative to P, p is to be preferred)).

<sup>31</sup> I discuss cases like this involving descriptive names at Dickie 2019 p

But in many cases, a speaker using a singular term is associating it with an information-marshalling activity that *is* (already) focussed on a specific object. In these cases, from the theorist's point of view, it is a harmless shorthand to say that that speaker is using the term to communicate a message about this specific thing. If we consider only fragments of conversation where relations of cognitive focus are fixed at the outset, the standard picture of communication using singular terms emerges from the cognitive-focus-based proposal as a limiting case.

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