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Situated Representations and *Ad Hoc* Concepts¹

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Introduction

Situation theorists such as Jon Barwise, John Etchemendy, and (at one time) John Perry have advanced the hypothesis that linguistic and mental representations are 'situated' in the sense that they are true or false only relative to partial situations. François Recanati has done an important task in reviving and in many respects deepening situation theory. In this chapter, I would like to explore some aspects of Recanati's own account. I shall focus on situated mental representations, and stress the connection between them and *ad hoc* or temporary concepts. First, I introduce the notion of unarticulated constituent, due to John Perry. I suggest that the question of whether there really are such constituents should be distinguished into two issues, one concerning language and the other concerning thought (Section 10.1). Then I formulate a dilemma that any friend of cognitive unarticulated constituents must face: alleged unarticulated constituents seem to be either articulated or non-constituents after all (Section 10.2). The dilemma is strengthened by the fact that unarticulated constituents cannot be inferentially relevant (Section 10.3). In order to show, hopefully, that the dilemma can be escaped from, I give two illustrations of what I take to be genuine unarticulated constituents. In the first, thoughts like *It's raining* and *It's over* are implicitly related to spatiotemporal situations via practical capacities for keeping track of particular places or times (Section 10.4). In the second, more tentative illustration, the relevant situations are not given, but stipulated, as with *In Constance, it's raining* (Section 10.5). In the last section, I argue that the notion of situation which emerges from the previous discussion is rather different from the one used by Recanati himself.

10.1 Unarticulated constituents: language and thought

Consider the following sentences (Perry 2001: 44):

- (1) It is raining
- (2) They are serving drinks at the local bar

Many utterances of (1) are true if and only if it is raining at a particular place, typically where the speaker is. Similarly, many utterances of (2) are true if and only if the people referred to by 'they' are serving drinks at a particular bar, typically located in the speaker's neighbourhood. Nevertheless, there is no item in the sentence (1) that designates the place where it is raining, just as there is no item in (2) that designates the location relative to which the bar is described as local.

In Perry's terminology, the relevant places are *unarticulated constituents* of the propositions expressed by utterances of (1) and (2). For instance, the place where it is raining 'is a constituent, because, since rain occurs at a time in a place, there is no truth-evaluable proposition unless a place is supplied. It is unarticulated, because there is no morpheme that designates the place' (2001: 45). The idea is that the interpreter has to look to the context *after* she has identified all the words and their meanings in the sentence; the context is used in a 'content-supplemental' way. In this respect, (1) and (2) differ from the explicitly indexical sentences 'It is raining here' and 'They are serving drinks at the bar in this neighbourhood', which articulate the relevant places.

It is worth distinguishing here two issues that are *prima facie* independent, although Perry himself often has both in mind. The first issue is about language, whereas the second is about thought.² At the level of language, the relevant question is whether what is literally said by an utterance of 'It's raining' (the 'official' proposition expressed by the sentence in context) can involve an implicit reference to a particular place even though there is no item, context-sensitive or not, corresponding to it in the syntactic or sub-syntactic structure of the sentence uttered. In other words, can one literally say that it is raining at a particular place by using only a one-place predicate 'rain' true of times? If the answer is 'yes', the place is a *semantic* unarticulated constituent of the linguistic representation 'It is raining'. Some authors, like Stanley (2000, 2002), doubt that there are unarticulated constituents in this sense, and defend the view that all alleged unarticulated constituents turn out to be articulated at a deeper level of syntactic structure or logical form.

The issue at the level of thought, as I see it, is whether what is *thought* in an utterance of 'It is raining' can involve an implicit reference to a particular place even though no constituent of the thought designates it. Let us say that the constituents of thoughts are *concepts* or *modes of presentation* of various objects and properties.³ When a subject thinks *It's raining*,⁴ can her thought in some sense concern a particular place while she does not grasp any mode of presentation of that place? Can she just deploy in thought the one-place concept *rain*, saturated by a mode of presentation of the present time?⁵ If the answer to these questions is 'yes', the place is a *cognitive* unarticulated constituent of the thought *It's raining*.

Interestingly, the two issues might be independent. Even if Stanley is right and there is no English predicate 'rain' true of times only, *some* thoughts

naturally expressed by 'It's raining' might involve the one-place concept *rain*. Conversely, if Stanley is wrong, as Recanati has recently argued (2002), and the sentence 'It's raining' can involve a one-place predicate true of times, it is still possible that the thought naturally expressed by this sentence involves a mode of presentation of a particular place.

Consider Stanley's main argument to the effect that all constituents are articulated in some sense. This is the *Argument from Binding*. Stanley claims that if there are unarticulated constituents, they cannot vary with the values introduced by operators in the sentence uttered. Now, it is possible to prefix 'It's raining' with a spatial operator, like in 'Everywhere I go, it's raining'. In the last sentence, 'rain' is supposedly a two-place predicate, for the operator must bind a variable for a place. However (the argument goes on), in the original sentence as well, 'rain' is a two-place predicate, for there seems to be only one predicate 'rain' in English. Thus, an utterance of 'It's raining' does not introduce any unarticulated spatial constituent; the place *is* articulated, at least in the form of a variable.⁶

I think that Stanley's argument is best viewed against the background assumption that language is *modular*, at least to some extent. The modularity of language implies that predicates are lexically given independently of the cognitive context. Now I want to contrast linguistic modularity with cognitive flexibility. One of the most interesting claims of recent cognitive science is that concepts are very often constructed 'on the fly', depending on the current cognitive task. In addition to the 'stable' concepts that might be encoded by words, there are *ad hoc* or *occasional concepts*, namely temporary constructions in working memory. These cognitive constructions have been postulated in many areas of cognition (Sperber and Wilson 1998; Barsalou 1999; Carston 2002; Prinz 2002). Here is a recent statement of the context-sensitivity of concepts:

[W]e all have countless DOG concepts . . . The way one represents a dog depends on whether one is thinking about the arctic tundra or Central Park. The way one represents an elephant depends on whether one is at a circus, in a zoo, or on a safari. (Prinz 2002: 152–3)

If we take the idea of *ad hoc* concepts seriously (as I think we should), there are many concepts of rain varying with the cognitive context. Thus, even if the thought *Everywhere I go, it's raining* involves a concept of rain which demands a spatial mode of presentation, the simpler thought *It's raining* might well involve, in some contexts, a spatially neutral conception of rain.

Without exaggerating the gap between language and thought, we should be open to the possibility that a truth-conditionally relevant parameter is unarticulated at the semantic level while being articulated at the cognitive level, and vice versa. Table 10.1 summarizes the four possible cases.

In case (a), the relevant constituent is articulated both at the level of the sentence and at the level of thought. This case covers utterances of 'It

Table 10.1

	(a)	(b)	(c)	(d)
Level of the sentence (linguistic meaning)	+	–	+	–
Level of thought (conceptual content)	+	+	–	–

is raining here' and 'It is raining in Paris' when the place which is explicitly referred to is also singled out in thought. The existence of case (b) is more controversial. If we accept Recanati (2002)'s analysis of 'It's raining', according to which it need not introduce anything more sophisticated than a one-place predicate 'rain', we can imagine a scenario in which the subject uses this sentence but articulates the place in her thought. This may happen if the place has been explicitly introduced earlier in the conversation, so that it is now obvious to the speaker and the hearer which place is in question. As an example of case (c), take a subject who uses a two-place predicate 'rain' true of times and places, but does not bother articulating the place in thought, perhaps because the current cognitive task does not require it. Finally, in case (d), a truth-conditionally relevant constituent is unarticulated both at the level of sentence and at the level of thought.

10.2 A dilemma

Still, the claim that there are cognitive unarticulated constituents is controversial. There is a fundamental dilemma that any friend of such constituents has to face. Either the alleged unarticulated constituent is *cognitively relevant*, or it is not. In the former case, it can be a constituent of what is represented, but it seems to be *articulated* in the subject's cognitive life after all. So it looks as if the alleged unarticulated parameter must be cognitively irrelevant. However, in this case, it can no longer be considered a *constituent* of what is represented, for there is in principle a more accurate interpretation available.

Perry (2001: 46–7) draws a distinction among cases where he says there is an unarticulated constituent, between those where 'there is nothing insightful or innovative about articulating it', and those where a conceptual innovation is called for. The former cases include 'It is raining' and 'They are serving drinks at the local bar', which can easily be transformed into, say, 'It is raining in Paris' and 'They are serving drinks at the bar in this neighbourhood'. The first horn of the dilemma is doing its work here: since we all know that rain is a spatially located phenomenon and that something counts as local only relative to some reference location, the sense in which the thoughts expressed by these utterances are not fully articulated is at best unexplained.

In the other cases, the relevant constituent cannot easily be articulated save by using some general purpose phrase like ‘relative to’ or ‘according to’. However (and this is the second horn of the dilemma), I would say that at least some of these cases really do not involve unarticulated *constituents*. Consider the following examples, all discussed by Perry:

- (1) *These two flashes of light were simultaneous*, as thought by someone who has no idea of the theory of relativity.
- (2) *It’s two o’clock*, as thought by a young child who does not yet have the concept of a time-zone.
- (3) *It’s raining*, as thought by a Z-lander. (Perry 1993)

According to the theory of relativity, simultaneity has three argument roles: two events are simultaneous relative to an inertial frame. However, the folk notion of simultaneity does not involve any concept or mode of presentation of a frame. Does it follow that the frame is a cognitive unarticulated constituent? The answer depends on whether it is plausible to say that what is thought is made true, when it is true, by facts involving the triadic relation of simultaneity which the theory of relativity talks about. This is not very plausible for ordinary thinkers who have never heard of this theory. From the perspective of the theory of relativity, these thinkers have a naïve and confused view of physical reality. So, strictly speaking, a thought like (1) does not record an instance of physical simultaneity, but (perhaps) an experienced temporal coincidence. Of course, an educated semanticist can give (1) truth-conditions that are *relative* to an inertial frame. This interpretation is literally incorrect, but harmless if the validity of the thinkers’ inferences and the success of their actions do not hinge on the identity of the underlying frame. In fact, they do not move, either in reality or in imagination, between frames.

Similarly, what is thought by the child does not have a particular time-zone as a cognitive *constituent*. When she eventually masters the concept of a time-zone, she can then *reinterpret* her earlier thoughts about the time as being true or false relative to a particular time-zone. Still, her temporal thinking before the conceptual change showed no sensitivity to time-zones, and belonged to a more primitive way of responding to the world.

Consider finally the third case. Perry (1993) imagines a community of primitive thinkers, called ‘Z-landers’, who do not travel and do not have the conception of a particular region as opposed to another. In particular, they always conceive of rain as a monadic property of times. For them, it just rains or not (at a given time). Z-landers’ judgements about meteorological phenomena have a kind of primitiveness analogous to that of our ordinary judgements about simultaneity. We just don’t have the same official ontology of rain. Their concept *rain* is not a concept *of* particular spatial regions.

So their thoughts *It's raining* do not embody a conception of objective, re-identifiable places at all, but belong to a feature-placing mode of thinking in Strawson's (1959) sense.

Thus, *pace* Perry and Recanati, the examples (1)–(3) do not introduce unarticulated constituents because in each case there is a better interpretation which makes the relevant utterances and thoughts completely articulated after all, although expressive of a more primitive ontology.

10.3 Inferential roles

The dilemma just presented can be strengthened by considering the connection between thought and inference. A thought explicitly represents something if and only if it contains a concept or mode of presentation of that thing. A thought is composed of as many concepts as it has *inferentially relevant aspects* (Crane, 1992). When something is explicitly represented, there will be inferences hinging on the identity of what is represented. For instance, the thought *Claire is upset* has at least two constituents (*Claire* and *is upset*) because it can participate in formal inferences such as the following, where these constituents figure separately in other thoughts:⁷

- (1) *Claire is upset. Claire is my sister. So my sister is upset.*

One can accept that there is an internal relation between thought and inference even if one does not believe that inferential role can be characterized independently of conceptual content. Perhaps inferential role flows from a more basic account of conceptual content. The point is rather that whatever notion is fundamental (perhaps both are), a thought is individuated by its role in inferences hinging on its conceptual constituents.

Conversely, if there are unarticulated constituents, they cannot be inferentially relevant. For instance, if the thought *It's raining* is only implicitly related to a particular place, it cannot participate in inferences hinging on the identity of that place. This may cast doubt on the existence of unarticulated constituents. How can there be room for a thought to have constituents which cannot play any role as middle terms in inferences?

One can specify in advance the general form that a convincing answer to this question should have. The propositional content of a particular mental representation is determined, at least partly, by the way it is used or 'consumed' by the cognitive system (Millikan 1993). One way of using the representation is in inferences. One can infer the representation from other representations, and one can infer other representations from it. However, the representation's inferential role, which determines the inferences in which it *can* participate, does not exhaust the absolute proposition expressed (its 'official' content) if there are other ways of using it that are semantically relevant too.⁸ In what follows, I shall give two illustrations of how this

can arise. In the first illustration, representations are anchored to situations via practical capacities for keeping track of times and places. In the second illustration, the situation is explicitly represented, but situated representations are still used in chains of thoughts. In both cases, some aspects of the representations' inferential roles are silenced, generating *ad hoc* concepts.

10.4 Placing features

Perry insightfully points out that 'there is a little of the Z-lander in the most well-travelled of us' (1993: 216). In other words, there are circumstances in which I think and act *as if* I were a Z-lander: I look out the window, judge *It's raining*, want to stay dry, believe that if I deploy my umbrella over my head, I will stay dry, and eventually deploy my umbrella. In this mode of practical reasoning, the question of which particular place is in question is *never* raised. The inferences involving the thought *It's raining* do not hinge on the identity of a particular place. This kind of cognitive task does not involve anything more sophisticated than a one-place concept of rain, true of times.

Similar considerations apply to the temporal counterparts of thoughts like *It's raining*. As Prior (1976) emphasized, there are contexts in which the thought *It's over*, formed in referring to some painful event I have just gone through, immediately modifies my action tendencies and makes me feel relief. In these contexts, *It's over* is a temporary construction which does not involve a temporal mode of presentation.

Thoughts like *It's raining* and *It's over* belong to a mode of perceiving, thinking and acting on the world which is relatively *neutral* from a spatiotemporal point of view. In that mode, I can acquire information that some property is instantiated, but I cannot acquire the information that it is instantiated in my perceptual field *considered as a particular place among others*. In order to make sense of the latter information, I have to impose on my perception a cognitive map that contrasts the local place with other places, not currently perceived. Similarly, I can acquire perceptual information that some event is completed, but I cannot acquire the information that it happened *at a particular time*. In order to make sense of the latter information, I normally invoke a linear conception of time that contrasts the present time with other times. The uses of a cognitive map and a linear conception of time involve more sophisticated thoughts like *It's raining here* and *It's over now*, which are explicitly about particular places or times.⁹

The fact that I use representations such as *It's raining* and *It's over* does not mean that I adhere to Z-landers' ontology of rain, or that I indulge in a doubtful temporal ontology in which being over is an absolute property of events. My use of such representations is restricted to particular situations, in which the source of perception is roughly the same as the target of action. For instance, I would not go into the described inferential transitions if

I believed that the place of perception has become significantly different from the place of action. In contrast, Z-landers would make the same judgments if they were nomads, unknowingly changing places. Similarly, even though my thought *It's over* is not explicitly about the present time, the fact is that I use it only for an instant. In particular, it is never stored in that form in long-term memory for later use.

In other words, two dimensions can be distinguished in our use of the relevant representations. On the one hand, they have inferential roles characteristic of a feature-placing (spatial or temporal) mode of thinking. On the other hand, these roles are constrained by the subject to apply in specific spatiotemporal contexts. My suggestion is that the thoughts' 'official' contents are jointly determined by both dimensions, so that *It's raining* is true if and only if it is raining at a particular place, and *It's over* is true if and only if it is over at a particular time.

It is plausible that these representations are derived from more stable ones by cancelling some cognitive features of the latter. For instance, the concept $RAIN_1$, true of times only, might be derived from the stable concept $RAIN_2$, true of times and places, by silencing our ability to distinguish one rain event from another (at a given time), leaving only our ability to distinguish rain from non-rain. What makes the relevant representations *ad hoc*, though, is that they are *temporary* constructions, opportunistically used only as long as a particular cognitive task is carried out.

10.5 Situating inferences

On the foregoing account of Perry-like scenarios, the relevant thoughts are anchored to spatio-temporal situations via practical capacities for keeping track of the subject's own movements in space or the passage of time. However, there are more sophisticated cases in which the situation is not given but *stipulated*. Consider the complex thought *At Lake Constance, it's raining*. On the traditional analysis, the concept *rain* calls for a spatial mode of presentation, which here determines Lake Constance. Following Karl Bühler, Recanati argues on the contrary that when one entertains a representation like 'At Lake Constance, it's raining', 'one simulatively entertains a representation decoupled from the egocentric situation' (2000: 162) in such a way that Lake Constance is '*presentified* through an act of the imagination' (2000: §6.5). So *within the context of simulation*, only a spatially neutral concept of rain is involved – the same as in the self-standing thought *It's raining*.

The difference between the two analyses is not obvious when a single representation is concerned. However, the merit of the second analysis emerges when we turn to more complex cases. Consider the following chain of thoughts:¹⁰

- (1) *I've just had news from my friend in Constance. It's raining heavily, so the streets are slippery. Everybody has to drive very carefully.*

The first thought in the chain explicitly introduces the anchor to which the rest of the reasoning is attached. The thoughts *It's raining heavily*, *The streets are slippery* and *Everybody has to drive very carefully* are then all true relative to Constance. Intuitively, it would be redundant, from a cognitive point of view, to articulate the reference to Constance at each step of the inference process, as in (2):

- (2) *It's raining heavily in Constance, so the streets of Constance are slippery. Everybody in Constance has to drive very carefully.*

The question is how to spell out this intuitive argument in favour of the existence of situated reasoning such as (1).

Consider first the thought *It's raining heavily* as it occurs in (1). Just as in the simpler Perry-like scenarios, two cognitive dimensions can be distinguished in its grasping. First, it has the inferential role of a feature-placing thought. Second, I am nevertheless not ready to draw all the inferences that would be licensed by a genuine feature-placing thought. I restrict my reasoning to selected ways of establishing the thought, and ways of drawing consequences from it. For instance, as my simulation of Constance is decoupled from actual perception and action, my current experience of rain, say in Paris, does not establish the truth of *It's raining*, just as the latter does not lead to my opening an umbrella where I am. In fact, since the situation is stipulated to be Constance, my reasoning does not have to be sensitive to actual changes in my spatial relation to Constance, whatever it is.

Within the context of my simulation of Constance, the move from *It's raining heavily* to *The streets are slippery* makes perfectly good sense given the inferential role of the premise. As contrasts between Constance and other cities cannot be drawn within such a simulation, there is no question as to whether the place where it is raining is the same as the place where the relevant streets are. In general, it may be cognitively more manageable to cope with a partial situation rather than with the whole world when the difference between them is irrelevant to the success of one's theoretical and practical projects. For instance, in a Perry-like scenario, the thought *It's raining* can be directly geared to local rain-protecting action because the success of the latter does not depend on the weather elsewhere in the world.

There is some analogy to be made here with logical reasoning with arbitrary objects (cf. Fine 1985). When I reason with an arbitrary object, I have to make sure that the latter is representative of the domain of quantification. In other words, I have to control my reasoning so that it does not trade on special assumptions about the object. I can introduce the universal quantifier only if the difference between the arbitrary object and the other objects in the domain is irrelevant to the validity of my argument.

Of course, in the absence of a substantial theory of cognitive effort, the foregoing remarks remain speculative. There is an *a priori* requirement on the possibility of situated reasoning such as (1), which is that the cognitive *cost*

of monitoring the inferences in (1) should be *below* that of the corresponding detached reasoning in (2), which articulates the reference to Constance at each step of the inferential process. Indeed, if each step of the inferential process in (1) were directly monitored by a full representation of the relevant situation, namely Constance, the difference between (1) and (2) would collapse. The fact that this requirement is met may be difficult to establish in particular cases, for unlike logical reasoning with arbitrary objects, there are often no strict rules saying which inferences may be drawn and which should be inhibited.

In the case of (1), the move from *It's raining heavily* to *The streets are slippery*, as well as the move from the latter to *Everybody has to drive very carefully*, are licensed only if the following dispositional condition is met: if I were to produce the detached versions of these thoughts, they would be organised as a piece of reasoning about Constance, as in (2). In other words, one can make such moves because one is disposed to detach the thoughts in the same way, i.e., to consider them as being implicitly related to the *same* constituent. Perhaps the establishment of such a dispositional connection requires less cognitive effort than explicit articulation of Constance at each step in the chain of thoughts.

As a different illustration, consider the last thought in (1), *Everybody has to drive very carefully*. Arguably, two dimensions can be distinguished in the grasping of the quantified concept *everybody*. On the one hand, this concept is associated with the usual introduction and elimination rules. It has the inferential role of an absolute (unrestricted) universal quantifier. On the other hand, the application of these rules is opportunistically monitored, which makes *everybody* an *ad hoc* concept. The move from *Everybody is F* to *a is F* is made only if *a* belongs to the paradigm defining the situation, namely the set of objects that can be identified within it, and the move from *a is F* to *Everybody is F* is made only if *a* is representative of the objects in this paradigm. However, it is not clear that such inferential monitoring is more economical, from a cognitive point of view, than reasoning with a detached version of the thought, such as the last thought in (2), in which the domain of quantification is explicitly restricted.

Perhaps there is another way of looking at things. Here is a tentative suggestion. Suppose that *b* refers to somebody I take to be outside Constance at the relevant time. Then the inference from *Everybody is F* to *b is F* cannot be drawn within my simulation of Constance. However, the reason why it cannot be drawn is not that I have explicitly excluded *b* from the paradigm defining the situation. Rather, the inference cannot be drawn because the thought *b is F* cannot even be *grasped within the simulation*. The cognitive resources deployed within the simulation can at best identify a person *as opposed to others in the paradigmatic set*. In other words, modes of presentation of relevant individuals in the simulation are *ad hoc*. If one adds to the simulation the concept of a new person, additional cognitive resources are

necessary because new contrasts become possible. This might be why it can be more economical to fix a situation once for a whole simulation project rather than making it explicit at each step of the inference process.

10.6 Austinian semantics and non-persistent facts

In Recanati's picture, the claim that there are unarticulated constituents has a place in a more general framework, inspired by situation semantics, more precisely the version of situation theory called 'Austinian semantics'.¹¹ In this framework, any representation concerns, without explicitly representing, a partial situation. Whenever there is a representation, two semantic dimensions should be distinguished:

$$(1) \langle s, \sigma \rangle$$

In (1), σ is a (linguistic or mental) representation, and s is the situation relative to which σ is presented as true or false. Just as *It's raining*, in a context in which it is true or false relative to Paris, does not represent Paris (at least explicitly), σ does not represent the situation s it concerns.

In Austinian semantics, a situation s is or generates a set of facts, including the fact stated by σ when it is true. A true representation σ is said to be 'supported' by the situation it concerns. The support relation, between a situation and the corresponding representation, is symbolised by the semantic turnstile:

$$(2) s \models \sigma$$

Recanati himself gives a more precise, set-theoretic characterization of the support relation (2000: 69):

Support relation

A situation s supports an atomic fact σ with respect to a world w if and only σ belongs to $W(s)$.¹²

One worry with this characterization is that it seems to carry a commitment to perspectival or non-persistent facts. Consider again the mental representation *It's raining*. It concerns a partial situation which includes facts about Paris, something that we can represent as follows:

$$(3) s \geq W(\text{Paris}) \text{ I} = \textit{It's raining}$$

In (3), W is a function that takes as input an object and gives as output a set of facts about that object. Thus, $W(\text{Paris})$ refers to a set of facts about Paris, which is included in, or is identical with, the set of facts constituting s . Now, suppose the representation is true: it is actually raining in Paris. What

is, then, the fact stated by *It's raining*? On Recanati's characterization, it appears to be *the fact that it is raining*. This is a perspectival fact, in the sense that it holds only within the partial, Parisian situation. This can give rise to non-persistence phenomena. For instance, that it is raining is a fact in the Parisian situation, but it may not be a fact in a larger situation, such as France. The fact that it is raining in Paris is compatible with the fact that it is *not* raining in France in general. (I assume that it is raining in a given situation *s* only if there is a fair distribution of rain within *s*.)

Much of what I have said in this chapter seems to me to be independent of the existence of non-persistent facts. Thus, either there is an alternative characterization of the support relation which does not carry a commitment to such facts, or the relation between a situation and its representation is not one of truth-making. If one follows the first option, one can still give a set-theoretical characterization of the support relation. Roughly, a situation *s* supports σ if and only if the fact stated by σ (in the relevant context) is included in *s*. However, the latter fact is persistent; it is the fact that in *s*, σ . For instance, the fact stated by *It's raining*, in the relevant context, is the persistent fact that it is raining in Paris.

However, the second option seems to me to be preferable, which makes my notion of situation different from Recanati's. On my definition, a situation includes all the facts that are responsible for the representation's expressing an absolute proposition. For instance, the situation of the representation *It's raining*, as used in a particular context to express the proposition that it is raining in Paris, includes various facts about the relation between the representation and Paris. What I have suggested in this chapter is that the facts that make the representation *concern* Paris are of a different kind from the facts which make the representation explicitly *about* rain. The latter have to do with inferential role, whereas the former concern the subject's restricted use of the representation. The situation includes both kinds of facts. The claim that it contains in addition the fact that it is raining in Paris if the representation is true does not seem to have much explanatory value.

10.7 Conclusion

In this chapter, I have followed Recanati's lead in arguing for the relevance of the notion of a situated representation. Two points have been particularly stressed. First, the notion of situated representation is intimately linked with that of *ad hoc* or temporary concepts. We have the ability to silence some aspects of the inferential roles of our representations and make explicit only what is in fact needed in a particular context. We thus create *ad hoc* concepts, which we use in representation only with respect to partial situations. Second, the notion of situation can be dissociated from the conception of perspectival or non-persistent facts, which Recanati seems to follow Barwise in endorsing. On the present account, a situation comprises complex

relational facts between a representation and its propositional constituents, articulated and unarticulated, but need not in general include the fact stated by the representation when it is true.

Notes

1. Versions of this chapter were presented at the Summer School of Analytic Philosophy organized by Pascal Engel in July 2002, in Oslo in November 2002, and in Granada in March 2003. I thank the audiences there, as well as Eros Corazza, Dick Carter, Steven Davis, Pascal Engel, Elisabeth Pacherie, Stefano Predelli, Joëlle Proust and François Recanati for helpful comments and discussion.
2. On the difference between unarticulated constituents at the level of language and unarticulated constituents at the level of thought, see also Corazza (2002), to which I am indebted in what follows.
3. The notion of concept used here is non-Fregean; it concerns the level of sense, not the level of reference. ‘Concept’ and ‘mode of presentation’ are used as synonyms.
4. I shall adopt the convention of using italics for descriptions of mental representations.
5. I shall pretend, for simplicity’s sake, that the temporal parameter is genuinely articulated in the thought *It’s raining*, but in fact it need not be. As Kaplan (1989: 504), puts it, “‘It’s raining’ seems to be locationally as well as temporally and modally neutral’. The same is true of the mental representation *It’s raining*.
6. In Recanati’s (2002a) terminology, the place is ‘weakly’ articulated.
7. This is related to Evans’s (1982) Generality Constraint.
8. By ‘absolute proposition’, I mean a proposition whose truth-value is not relative to anything but a possible world.
9. Cf. Recanati (1997: 54–5) for the connection between explicit representation and the possibility of contrasting the referent with others in the relevant paradigmatic set.
10. This is a variation on Recanati’s example ‘Berkeley is a nice place. There are bookstores and coffee shops everywhere’ (2000: 67).
11. The original inspiration is John L. Austin’s essay ‘Truth’, reprinted in Austin (1971). See Barwise and Etchemendy (1987), and Recanati (1997, 2000).
12. $W(s)$ is the set of facts associated with s . In what follows, I ignore the relativization of the support relation to a world.

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Recanati's Reply to Dokic

I

Do thoughts involve unarticulated constituents? Dokic attempts to weaken the case for unarticulated constituency in thought, by arguing that the prototypical examples invoked by Perry should be reinterpreted. Those examples 'do not introduce unarticulated constituents because in each case there is a better interpretation which makes the relevant utterances and thoughts completely articulated after all, although expressive of a more primitive ontology'.

Dokic discusses three examples: simultaneity, time-zones, and Z-land. He points out an alleged difficulty for Perry's position or mine. Ordinary subjects do not have inertial frames in their ontology, five-year-olds do not have time-zones in their ontology, and Z-landers do not have places in their ontology. According to Dokic, we should straightforwardly acknowledge the fact that the subject's ontology is more primitive than ours, instead of claiming that the subject's thought involves 'unarticulated constituents' which he or she is not even able to articulate. By positing unarticulated constituents in the subject's thoughts we – the theorists – unduly force our own ontology upon them.

Let me mention a fourth example that corresponds to the sort of case Dokic has in mind. Let us assume a primitive organism that lives in the present, constantly reacting to what is currently taking place, without ever thinking about the past or the future. Let the organism think 'it's cold' at time t_1 , and 'it's hot' (or 'it's not cold') at time t_2 . Dokic would say, correctly I believe, that the organism's ontology contains only objects and properties, and possibly places, but not times. This is the exact temporal analogue of the Z-land case. In the light of this example, however, Dokic's argument that the subject's thought in such situations does not involve unarticulated constituents turns out to be untenable. For we must account for the organism's rationality. If we don't relativize the organism's thoughts to times, by construing them as 'concerning' particular instants, we cannot capture the fact that the organism does not contradict himself even though he thinks 'it's cold' and 'it's not cold'. He does not contradict himself because

his thought that it is cold is true iff it is cold at time t_1 (when the thought is tokened), while the thought that it's not cold is true iff it's not cold at t_2 .

The notion of an unarticulated constituent enables us to capture the truth-conditions of the organism's thoughts by bringing environmental facts into play, without imputing to the organism the ability to conceptualise or mentally articulate those facts. It follows that the primitiveness of one's ontology has no bearing on the issue, whether or not one's thought involves unarticulated constituents (thus understood). Of course the organism's ontology does not encompass times; but this does not show that his thoughts do not concern times.

II

Dokic thinks one should accept unarticulated constituents only when they make a cognitive difference to the subject. This he calls the 'Anchoring Constraint':

Anchoring Constraint:

A mental representation is not related to the situation it concerns in a purely external manner but by way of cognitive facts about the subject.¹

In the Z-land case Dokic denies that the place is an unarticulated constituent of the thought because the subject's relation to the place of thinking is 'purely external': the place has no cognitive reality for the subject. The situation is different for us, since we have a sophisticated ontology and can think about places. Still, we often do not bother to articulate the place because the current cognitive task does not require it. In such cases – for example, when I look out the window, see that it rains, and grab my umbrella – Dokic accepts that the place is an unarticulated constituent of the thought. For the place has some cognitive reality for the subject.

At this point, however, the question arises: which cognitive reality? The fact that the subject is able to think about the place and to conceptualize it is neither necessary nor sufficient to confer the relevant cognitive reality. A conceptual ability is not sufficient because it is a mere ability, which may or may not be exercised; and it is not necessary because it is conceptual. As Dokic rightly points out, the subject typically bears a cognitive yet nonconceptual relation to the unarticulated place of thinking, in virtue of which he is able to monitor changes of location so as to inhibit certain inferences that require locational constancy.

It is interesting to compare Dokic's position with Perry's. In 'Relativized Propositions' (Recanati 2006) I ascribed to Perry the view that the situation a representation concerns must be given in a purely external manner, rather than through some cognitive discrimination on the part of the subject. Dokic holds the exact opposite of this view. As far as I am concerned, I hold an

intermediate position. Against Perry, I insist that, in many cases, the situation which an utterance or thought concerns will be determined not by external facts like the location of the speaker, but by cognitive factors such as the topic of the conversation or what the thinker is mentally focussing on. In such cases, admittedly, the situation *s* which the representation *R* concerns will itself have to be somehow represented or articulated – it will have to be cognitively discriminated – but that would raise a problem only if that entailed that *s* is articulated in *R*. As I point out in ‘Relativized Propositions’, that consequence does not follow. I therefore reject the ‘No Cognitive Concerning’ principle which Perry seems to accept in his discussion of unarticulated constituents and the concerning relation. But I also reject Dokic’s ‘Anchoring Constraint’, which goes too far in the other direction.

III

There are unarticulated constituents in language and there are unarticulated constituents in thought. Dokic says that all combinations are possible: a given constituent may be articulated in language but not in thought, or in thought but not language, or in both, or in neither. I agree. The only problematic case is the case in which a constituent is articulated in language but not in thought. It is problematic because it seems that one cannot linguistically articulate something without *eo ipso* thinking about it. But in ‘Relativized Propositions’, I argued that an important category of thoughts, namely ‘context-relative thoughts’, cannot be literally expressed in language. To express such a thought sometimes the best thing we can do is to use an indexical sentence, which articulates what is left unarticulated in the corresponding context-relative thought. Thus ordinary (non-emphatic) *de se* beliefs² are context-relative: they ‘concern’ the self but are not ‘about’ it. As Lewis (1979) puts it, the *de se* believer ‘self-ascribes’ a property: the content of his belief, therefore, is not a complete proposition with himself as a constituent. Still the proper way of expressing a *de se* belief in English is by using a first-person sentence, in which the word ‘I’ articulates the unarticulated subject of the self-ascription. We cannot say ‘Hungry!’, we have to say ‘I am hungry’. In such cases it makes sense to say that the self that is articulated in language is not articulated in the expressed thought.

Dokic sees that there is an important connection between situatedness (or unarticulatedness) and *ad hoc* concepts. He says that the simple concept RAIN that one uses when one sees rain and thinks ‘it’s raining’ (without articulating the place) is an *ad hoc* concept ‘derived from the stable concept RAIN₂, true of times and places, by temporarily silencing our ability to distinguish one rain event from the another (at a given time)’. But I see no reason not to proceed in the other direction. Why not start from the simple concept RAIN and enrich it into the more complex concept RAIN-AT-A-PLACE?

Finally, there is the problem of nonpersistence. Nonpersistent facts (such as the fact that it's raining, or the fact that everybody's happy) are perspectival: they hold only relative to a point of view, and may no longer hold when we change the point of view. Like Perry and many others, Dokic thinks that facts, being part of objective reality, cannot be perspectival, hence that one shouldn't accept nonpersistent facts. He may be right, but I find this metaphysical issue extraordinarily complex. Reality is, indeed, objective, but it may be construed as fragmented (Fine (2005: 280–84)). That is, we do not have to accept the Tractarian idea that there is a world that is the totality of facts. We can take reality to consist of . . . situations, without reality itself being a 'maximal' situation (Barwise 1989: 261–2). If we take this line, the issue of nonpersistent facts appears in a new light. Be that as it may, the theory of situations (including the bit about nonpersistent facts) is a tool that I find useful in theorizing about language and thought. Whether or not it makes sense as a metaphysical framework is an issue I'd like to leave open for the moment.

Notes

1. See Dokic, 'Situating Mental Representations' (ms. Institut Jean Nicod).
2. The contrast between ordinary and emphatic *de se* beliefs comes from Stéphane Chauvier, *Dire 'Je': Essai sur la subjectivité*. Paris: Vrin, 2001.

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