



## 8 Fore- and Background in Conscious Non- Demonstrative Inference

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### 1. Introduction

Philosophical discussion of conscious, personal-level inference has often focused on simple deductions, with only a small handful of premises, like *modus ponens*.<sup>1</sup> Consciousness has, in this context, often been left as something of a global heading of the relevant inferences. Specifically, such questions as whether the different premises, or the conclusion, differently manifest in consciousness, or whether different notions, forms, or gradations of consciousness are apt for their respective characterization, have not been much explored. When philosophical discussion of inference has turned to unconscious cognition, the focus has often been on quite different, subpersonal processes. For example, it has been discussed whether the alleged unconscious inferences posited by some vision scientists to explain even low-level vision can qualify as genuine inferences.<sup>2</sup> In these cases, none of the premises and, in some cases, not even the conclusion of the alleged inferences would be consciously entertained or even available to consciousness. In this chapter, I will look at a class of inferences that seem to fall somewhere between simple explicit deductions and subpersonal inferential processes on dimensions relevant to consciousness, viz. at certain non-demonstrative inferences. These are personal-level. They proceed from a consciously noticed fact, or apparent fact, to a similarly entertained conclusion. Yet they seem also to be sensitive to a rich stock of background information, not all of which seems to be consciously present in quite the same way as certain more explicitly noted or considered elements of the thinker's overall perspective. These inferences suggest that consciousness can vary, in potentially interesting ways, across the body of assumptions from which a given conclusion is drawn

The relevant sort of inferences may, I will assume, be exemplified by such cases as:

*Getting Irony* You overhear someone, known to be heading to a work retreat, casually remark that the evening will be spectacular. You are initially surprised, given what you assume to be to on their



agenda, your familiarity, such as it is, with their likings, views, and habits, the likely feelings of her addressees, etc. It dawns on you the intent must have been ironic.

*Car Means Home* As you approach your house a rainy Tuesday, you see your car parked outside. Drawing on what you know of your partner's travelling habits, use of modes of transportation in different weathers, etc., you infer she is at home.<sup>3</sup>

*Joke Getting* You are reading a New Yorker cartoon, showing two men at a bar, one of whom, with a flustered, puzzled expression, tells the other 'What I don't, like, get is how she, like, figured out I was, like, having an affair with the, like, babysitter'. Drawing on various knowledge concerning, e.g., the speech mannerisms of young adults, how intimacy may bring imitation, how this might be unself-conscious, the implications of having an affair and being found out, etc., you get what's funny about this joke.<sup>4</sup>

These exemplify, I shall assume, non-demonstrative inference. Thus, *Car Means Home* is not to be construed as a deduction from two assumptions to the effect that the car is parked outside, and that if the car is parked outside, my partner is at home (or that whenever the car is parked outside, my partner's at home).

The inferences are personal-level. They are attributable to you, not just to subsystems (though subsystems may of course have a role in explaining how and why they were drawn). Relatedly, they are in some sense conscious. You have some awareness of what you are thinking and why. In *Getting Irony*, for example, you are conscious of the remark as being ironically intended, and as being, probably, so intended since such-and-such activities, awaiting the speaker this evening, clearly would not be considered very exciting, given so-and-so features of the speaker and her addressees, and so forth. It is a familiar point, though, that the ease or readiness with which you can spell out your reasons, filling out the 'such-and-such's, 'so-and-so's, and so forth's, may vary across information you are relying on. In so far as this ease or readiness is an index of the extent to which, or the sense or manner in which, the information figures in consciousness, it raises the question in what ways consciousness extends among it.

That question is raised also by the commonplace distinction between what is at the forefront of one's mind versus what lingers only more towards the back of one's mind. Our examples invite description in these commonplace terms. In *Getting Irony*, say, it might be towards the fore of your mind that the speaker's work retreats are known heavily to feature *Insanely Fun Team Building Activities*. You also recall, perhaps a tad more dimly, that the speaker and her addressees have lately voiced appreciation for @NeinQuarterly. Quite a bit further to the back your mind may be found presumptions that begin to approximate to, say, Gricean maxims, such as the idea that that people would not seriously assert what they clearly would

not be taken to believe. The latter does not seem to be entertained in the way the just-mentioned points are, even though you, at some level, know it, or something like it, to be true (at least assuming a broadly Gricean, or cognitivist, approach to pragmatics). The presumption would not strike you as an unfamiliar point, or simply as news, were it to be put to you.

More generally, personal-level non-demonstrative inferences seem not uncommonly to rely on a long tail of assumptions, where the latter differ in how salient or available they are. We could say a certain fore-v-background structure – or perhaps several such structures – hold(s) over them. What structures in consciousness do these correspond to?

The next section introduces a distinction between (comparatively simple) Boring and (more complex) Interesting Views of fore-v-background structures. Section 3 gestures at some motivations for Boring Views; Section 4 at reasons for thinking Interesting Views may nevertheless merit exploration. Sections 5 and 6 take stock of some promising resources for an Interesting View, from, respectively, Sebastian Watzl, and Terry Horgan, Matjaž Potrč, and various co-workers. Some remarks of Edmund Husserl's on what he calls the horizons of acts of consciousness are drawn on in Section 7. These remarks suggest, I argue, ways of refining the resources charted in the two preceding sections, in order thereby to overcome some difficulties or limitations noted in those sections. Section 8 finds support for the indicated Husserlian ideas in psychological work on gist or schema representations in perception and memory. That section also notes how a conscious role for gist or schema representations in cognition can be understood in terms of the idea that the phenomenology of thinking exhibits thematic unity (cf. Nes, 2012). Drawing on the picture emerging over Sections 5–8, Section 9 outlines an account of what I dub thematic gist in conscious inference. Section 10 concludes.

## 2. Two Views of Fore-v-Background Structures

What differences in consciousness do fore-v-background structures in inference correspond to? One might draw a rough and ready distinction between two types of view here.

The first are comparatively simple and boring – tentatively, I dub them 'Boring'. Views of this sort think fore-v-background structures can be described quite simply by specifying, for the various assumptions relied on, whether they are phenomenally conscious, access conscious, or, alternatively, how easily they can be brought to mind. In somewhat more formal terms, such views may be said to distinguish three backgrounding relations (relations by which an assumption, B, may or may not be backgrounded to another, A, or equivalently A foregrounded to B), and hold that fore-v-background structures can be fully described by describing their instantiation. Assumptions, here, can be considered thought

contents, corresponding to what is said by utterances. I will dub the three relations *generic phenomenal*, *access*, and *availability* backgrounding.

An assumption, B, is generically phenomenally backgrounded to another, A, if A is phenomenally conscious but not B. Now, it is disputed in what sense, if any, it is so much as possible for thought contents to figure in phenomenal consciousness.<sup>5</sup> ‘Liberals’ about cognitive phenomenology hold that thoughts, including their conceptual contents, can be partly constitutive of what things are like psychologically for a subject. ‘Conservatives’ by contrast limit phenomenal consciousness to lower-level sensory or affective phenomena – impressions or imagery of shapes or colours, bodily sensations, etc. –, denying that thought contents can be partly constitutive of one’s overall phenomenal experience. It might be thought that, on a conservative view, no assumption can be generically phenomenally backgrounded to another, since no assumption can be phenomenally conscious. However, conservatives allow assumptions to figure in phenomenal consciousness as it were by proxy, in as much as they can be articulated verbally or can be associated with perceptions or imagery. Thus, a conservative might seek to define a non-vacuous generic phenomenal backgrounding relation, obtaining if A is so articulated or associated but not B. Tricky questions arise here, though. In just what detail, or with what degree of explicitness, need an assumption be elaborated in inner or outer speech to evade the relevant backgrounding? What sorts of association between an assumption and imagery suffice? I shall however have to leave these questions for another occasion, or for conservatives to ponder. The working assumption here will be a liberal view.<sup>6</sup>

An assumption, B, is *access* backgrounded to another, A, if A is subject to access consciousness but not B. Here ‘access’ is understood in an occurrent and not merely dispositional sense. The assumption is not merely accessible but accessed. There are various ways of spelling out what this involves more precisely. For present purposes, though, we may adopt what Carruthers (2015, p. 48) has described as ‘the most widely endorsed notion of access-consciousness’, according to which:

[access] conscious states are ones that are generally, or globally, accessible to an extensive set of other cognitive systems, including those for forming memories, issuing in affective reactions, as well as a variety of systems for inference and decision making.

(Carruthers, 2015, p. 48)

Finally, B is *availability* backgrounded to A to the extent that A is more readily brought to mind than B. This is, to be sure, a vague, multidimensional matter. The readiness for bringing something to mind can, plausibly, vary with the time, or the effort, or the nearness to hand of various apt cues, needed to bring the respective assumption to mind. The notion of ‘bringing to mind’ could be understood in terms of bringing

to either phenomenal or to access consciousness. Evidently, then, availability backgrounding could, and ultimately should, be unpacked into several dimensions, which might turn out to vary independently. For the purposes of this chapter, I shall however skate over these complications, resting content with a rough-and-ready notion of how easily a certain assumption is brought to mind.

The three backgrounding relations thus roughly distinguished are likely to be interrelated. In so far as phenomenal and access consciousness go hand in hand, so do the correlative backgrounding relations. Depending on how availability is fleshed out, one or both of generic phenomenal or access backgrounding implies availability backgrounding, though not conversely. Boring Views hold, again, that fore-v-background structures are adequately described just by describing the instantiation of these relations.

The alternative type of views is, in comparison, complex and interesting – tentatively, I call them ‘Interesting’. They allow the three aforementioned backgrounding relations but hold that the story of their instantiation is not the full story of fore-v-background. Different Interesting Views may offer different proposals as to what remains to be said. It might be argued there are backgrounding relations *within* phenomenal consciousness, whereby two assumptions may both be phenomenally conscious, yet unequally ‘prominent’ or ‘salient’, where this does not amount simply to a difference in access or availability-to-access. It might be said that access consciousness itself is a graded matter, i.e. that two assumptions might both be accessed, but one more so than the other. Another line of thought here, to be developed in Sections 6 through 9, is that information can be backgrounded by being, as it were, ‘nested’ or ‘condensed’ into other, more foregrounded mental states, from which it can then be unspun or decondensed, in characteristic ways.

### 3. Boring Views

Boring Views are the default option, being simpler. Although rarely explicitly argued for, various dichotomies and associations are suggestive of such views.

As for dichotomies, we have the familiar, two-fold distinction between standing beliefs, more or less easily available to consciousness, and occurrent thoughts or judgements.<sup>7</sup> In so far as we operate merely in terms of this distinction, the status of an assumption in or for consciousness would be specified just by specifying to which of these two classes it belongs. Plausibly, being ‘occurrent’, in the relevant sense, may understood in terms of either phenomenal or access consciousness. This classification would thus amount to describing relations of generic phenomenal or access backgrounding.

As for associations, conscious thought has been equated with, or restricted to, that to which one intellectually attends. Thus, Graham Oddie remarks that ‘a belief is occurrent if it is the belief that you are consciously attending to’ (Oddie, 2005, p. 240, cited from Crane, 2013). Michael Martin writes:

In general, whatever we are prepared to call an object of thought – be it the things thought about, what one thinks about them, or the proposition one thinks in thinking these things – we can also take to be an object of attention. Conscious, active thought is simply a mode of attending to the subject matter of such thoughts.

(Martin, 1997, p. 77)

Now, suppose such a view is combined with a view of attention on which attention gets devoted to at most a small number (three or four, say) of objects or chunks of information and where either no difference is posited in how attention gets devoted among these objects or chunks, or, at least, any such difference is not supposed to make for any counterpart difference in consciousness. This suggests a view on which, to specify the role of an assumption in or for consciousness, we need just to specify the following: whether it is among the few things attended to, and thus conscious (phenomenally or with regard to access); or else, how easily attention could be turned to it. That story would be within the genre of Boring Views.

Closely related arguments could be run in terms of the notion of working memory, or kindred notions of short-term memory capacities. The idea would be that thought is conscious (phenomenally or with regard to access) only if it is held in working memory, or maintained in some similar, short-term memory system.<sup>8</sup> Again, such systems are often assumed to have a low capacity limit, being restricted to about three or four chunks of information.<sup>9</sup> Suppose no difference is drawn with regard to how assumptions, activated in this system, figure in consciousness. That would suggest a view on which, to specify the role of an assumption in or for consciousness, we need just to specify whether it is activated in this system, or else how easily it could become so active. That story would, again, be within the genre of Boring Views.

No elaboration or evaluation of these lines of thought will be attempted in this chapter. I will rest content with gesturing towards some (mutually compatible) avenues along which a sympathizer with Interesting Views might seek out a response. First, it could be suggested that the evidence for the capacity limits on attention, or on working memory, only supports the weaker claim that correspondingly low limits apply, at least, to certain comparatively *foregrounded* elements or aspects of conscious thought. The evidence may not yet establish the stronger claim that such low limits apply to conscious thought *tout court*. Second, it might be

proposed that information might be attended to, or be held in the relevant forms for short-term memory, in different ways, or to different degrees, where some of these differences make for or go along with a difference in how that information figures in consciousness. Section 5 returns to this idea. Thirdly, it could be argued there are certain interesting dynamics of consciousness, whereby information occurs to us in a manner revealing of, or indicative of, its status as partially filling out certain more schematic anticipations. These dynamics may be consistent with consciousness having a low capacity limit at any given moment, yet may be held to constitute an interesting form of backgrounding. Ideas in this territory are developed in Sections 6 through 9. Whether any of these avenues of response, or some others, will ultimately be successful must be left for another occasion. The emphasis of this chapter is on exploring promising resources for an Interesting View, not on defending such views against Boring ones.

#### 4. Interesting Views, Why Bother?

Interesting Views are perhaps interesting, but why think we need the further complexity they bring? A key motivation comes, I think, from two connected reflections. On the one hand, conscious thought might seem to be, on occasion, rather rich its content. On the other, on some such occasions, the various ingredients of the richness might seem not to be grasped or entertained in quite the same way: in particular, they might seem to be unequal with respect to their prominence or salience.

To begin with the first point, concerning richness: it is a familiar observation that it may take quite a few words to spell out what one is thinking in a given situation. Even after having gone to some length attempting to articulate what one is thinking of, how one is thinking of it, etc., one might still have a sense there is more that could be said. One's thinking forms, it seems, a rather inclusive, multifarious, many-angled take on things.

The following passage from John Searle illustrates aspects of this richness:

Sally looks at Sam and suddenly has a thought in a flash: 'That's it!' If asked to state the thought, she might begin, 'Well, I suddenly realized that for the past eighteen months I have been wasting my time in a relationship with someone who is totally inappropriate for me, that whatever its other merits, my relationship with Sam was founded on a false premise on my part. It suddenly occurred to me that I could never have an enduring relationship with the head of a motor-cycle gang like the Hell's Angels because . . .' And so on.



In such a case the immediate content tends to spill over, to connect with other thoughts that in a sense were part of the content but in a sense were not.

(Searle, 1992, p. 137)

Let's suppose that, among the things Sally soon enough would say to fill out the ellipsis following 'because . . .', is the thought that Hells Angels are associated with crime – dub this thought 'Crime'. Although Crime is in a sense part of what Sally is thinking, it is, Searle suggest, not entertained in quite the same way – it is not equally 'immediate' – as the first few things Sally is saying, such as, e.g., that she has been wasting eighteen months – dub the latter thought 'Wasting'. This exemplifies the second point, about the apparently unequal prominence or salience among the things of which one is thinking.

It is not clear how such a structure could be captured on Boring Views. We cannot do justice to it just by saying that Crime is availability backgrounded to Wasting. That feature would not distinguish Crime from myriad other thoughts that Sally very easily and quickly can retrieve, such as, say, the thought that her name starts with an 'S', that she lives in London, that London is the capital of the UK, etc. etc. None of the latter are in some sense on Sally's mind here the way Crime may seem to be. Nor can we do justice to the structure by saying that Crime, unlike Wasting, is neither phenomenally nor access conscious. First, it is (or so we shall suggest) at least not clear that Crime *is* entirely unconscious in both these senses. Second, if indeed it were unconscious in these senses, then that status would, again, be shared with myriad other unrelated thoughts not currently on her mind, and so not distinguish Crime from the latter. If, on the other hand, we say Crime is phenomenally and access conscious, nothing has yet been said to distinguish it from, say, Wasting.

Could it be that, whereas Wasting is both phenomenally and access conscious, Crime is one but not the other? Now, Crime does seem to be access conscious, at least on the earlier-cited criterion, formulated by Carruthers. After all, Crime is available to systems for introspection, in as much as it will be among the things Sally reports herself to be thinking. It is available to, and indeed used by, systems of inference. For example, Wasting may be supposed to occur to Sally as an inference drawn, in part, from Crime. Moreover, Crime can partly explain her affective reaction: her present flash of revulsion towards the relationship might issue from, let's say, a new-found, or newly intensified, antipathy towards crime, combined with Crime.<sup>10</sup>

If this is right, it leaves the option that Crime is access but not phenomenally conscious whereas Wasting is both. However, that status on Crime's part would not, arguably, distinguish it from various other ingrained beliefs or pieces of knowledge that seem to qualify as access conscious, in as much as they are regularly in use across several contexts,



but seem not be distinctively or specifically relevant in this case. Consider such elementary beliefs as, say, that unsupported heavy objects tend to fall downwards, that one and one is two, that people typically can see what is in front of their open eyes, etc. These beliefs inform inferences, decisions, and emotional reactions in innumerable contexts. We will readily volunteer that we have these beliefs if the question arises. It is at least not clear why they should not qualify as access conscious in Sally's case. Yet they do not seem to concern what is currently flowing through Sally's mind in the way Crime does.

Second, and irrespective of the last point, it might be insisted Crime plays some, even if merely peripheral, role in Sally's experience of thinking – that it has some interesting manifestation in what it is like for her to be thinking as she is at the moment, even before she clearly articulates Crime, fleshing out the lacuna in 'I could never have an enduring relationship with the head of a motor-cycle gang like the Hell's Angels because. . .'. We may contrast Sally here with Sally\*. In place of Crime, Sally\* harbor thoughts of how Hell's Angels are given to noisy, swaggering pursuits. For Sally\*, these thoughts combine with a dawning realization that calm and restful activities appeal so much more to her. Even before Sally\* spells this out, the way in which her thoughts of Sam and HA are placed in a context not of crime but of noise and swagger might, arguably, make for a phenomenal difference with Sally. If this is so, it suggests Crime has some phenomenal role for Sally, if only a peripheral one.

These brief reflections are not, it goes without saying, intended to come even close to establishing Interesting Views as true. They are offered only to suggest grounds for thinking such views are at least worth exploring.

## 5. Attention as a Structure Within Consciousness

William James described the role of attention, or what he variously termed 'interest', in experience in terms of 'foreground' and 'background':

[T]he moment one thinks of the matter, one sees how false a notion of experience that is which would make it tantamount to the mere presence to the senses of an outward order. . . . Without selective interest, experience is utter chaos. Interest alone gives accent and emphasis, light and shade, background and foreground – intelligible perspective, in a word.

(James, 1890, p. 402, cited from Watzl, 2017, p. 183)

James's suggestion here is that inattention is a background *within* consciousness. Besides James, such views of attention and consciousness have been suggested inter alia by Husserl (1913/1983, §92) and Searle (1992, pp. 137–9). I shall here, however, focus on a recent account due

to Watzl (2017), on which attention has the role of structuring mind, in general, and consciousness, in particular. Specifically, attention is viewed a process of prioritizing elements in one's mental life – of putting these elements in relations of priority to each other, whereby they together form what Watzl terms a 'priority structure'. The focus of attention corresponds to the content of the mental state with top priority (Watzl, 2017, pp. 70–114). In so far as the mental states prioritized relative to each other are conscious, the priority structure constitutes or entails what Watzl dubs a 'centrality structure'. This is a structure of conscious states related by a phenomenal centrality relation. The latter is the phenomenal counterpart or manifestation of priority relations (Watzl, 2017, pp. 183–210). Conscious states necessarily partake in the process of attention, Watzl argues, in that they necessarily enter into centrality structures. However, they may be relatively peripheral in that structure, their contents being relegated to a position far from the focus of attention (Watzl, 2017, pp. 251–282).

Now, let's say that B is inattentively backgrounded to A if B, like A, is consciously entertained but receives less attention than B and thereby is less prominent in consciousness than A; to put it Watzl's terms, attention renders A more central than B (though both are conscious). I am inclined to think, and will anyhow here assume, that there is such a relation as being inattentively backgrounded, and that it is apt to at least in part illuminate the structure of consciousness in conscious inference.

The question is how far it goes in this respect. As Watzl acknowledges, it does not, as it stands, capture a certain distinction within the less-than-focal aspects of one's state of mind that was stressed by Aron Gurwitsch (1964), and that arguably reflects a structure in conscious thought and inference. Consider Car Means Home. Here, we might suppose, the manifest presence of our car outside, and my concluding thoughts of my partner's being at home are comparatively central in my consciousness. Ideas about her working schedule, preferred methods of transportation in different weathers, likelihood of going out a walk or jog around this time of day, etc. are more peripheral though still, at some level, assumed in the case at hand. We may contrast these ideas with, say, various bodily or agentive experiences of mine as I am walking towards our house: the sense of my feet regularly touching the ground, the slight ache in my legs from walking up the hill, etc. These are also conscious, but not relevant to or bound up with my inference in quite the way my ideas of my partner's movement patterns are. Gurwitsch marked this putative difference by distinguishing my ambulatory sensations as 'marginal awareness' from my ideas of my partner's various habits as a 'thematic field'. Both differ from the 'theme', that is, from what is at the forefront of my awareness or most gripping on my attention. The thematic field, unlike the margin, is however experienced as somehow relevant to the theme. In as

much as both thematic field and margin are inattentively backgrounded, that status does not distinguish between them.

One response here would be that there is no systematic difference in conscious character between margin and thematic field. It is just that we believe, or are disposed to believe, that items in the thematic field are relevant in a way in which the margin is not. Alternatively, or in addition: it is just that a certain conscious thought, viz. that of my partner's being at home, causally depends on the thematic field (henceforth simply 'field'), or is dispositionally connected with it (I would, e.g., sooner or later invoke ingredients from the field if pressed to explain my conclusion), in ways in which it does not depend on, or connect with, the margin.

Watzl however does not make this move, and I suspect he is right not to do so. Instead, he proposes to account for the field-v-margin distinction by identifying the field with a certain sub-form of the periphery of one's overall experience, dubbed the 'coloring and sustaining periphery', that is distinguished by a certain causal or counterfactual role vis-à-vis the center. Specifically, a part, *Y*, of one's overall experience is in the coloring and sustaining periphery of another part, *X*, if *Y* is peripheral to *X* (i.e. *X* is more central than *Y*) and the fact that this is so (i) affects the 'appearance properties' of *X* (this is the 'coloring' aspect) and (ii) sustains the comparatively central status of *X*, in the sense that, had not *Y* been peripheral to *X*, *X* would be less central to the overall experience (this is the 'sustaining' aspect) (Watzl, 2017, p. 200–1). Here 'appearance properties' are defined as those properties of a phenomenally conscious episode 'that contribute to the way an aspect of the world appears to the subject when she undergoes that episode' (Watzl, 2017, p. 160). Such properties plausibly include the intentional properties of the episode, although they are not necessarily limited to such properties. If we apply this account to Car Means Home, the idea, roughly, would be that the presence in the periphery of my thoughts of my partner's general traveling routines affect how I think or conceive of our car's and my partner's location, and sustain the comparatively central status of my thoughts of the latter things. My bodily sensations of walking up the hill in contrast lack such a role.

I worry, though, that the relevant causal or counterfactual dependence can be gotten by in too diverse ways in order adequately to capture Gurwitsch's distinction. Could it not be that because of more or less ingrained habits, or my general constitution, there are certain trains of thought, let's say about literary matters, that I am only able to pursue, or, at least, more prone to pursue, when comfortably seated? I now enjoy the tactile, proprioceptive, etc. experience as of being comfortably seated. My mind turns to a remark by a certain character in *Madame Bovary*. Bringing to mind, more or less peripherally, various earlier scenes and dialogues, it dawns on me that the remark was ironically intended. This

conclusion would not have come to the fore of my mind without the experience of being comfortably seated. Indeed, the conclusion would, arguably, not have come to the fore without the seated-experience being merely peripheral: had the seated-experience been more central, it would have distracted me from ever reaching the conclusion. So the chair-experience would seem to be in the sustaining periphery of the conclusion. Does its presence in the periphery also affect the appearance properties of the more central part of my experience? Arguably, it does, for my central thought of the remark made by the relevant literary character would not have been to the effect that the remark was ironic – an intentional property of the thought, and so an appearance property thereof – had I not been comfortably seated as I am. Nevertheless, that comfortable experience seems merely marginal and no part of the thematic field. Called on to justify my conclusion, or, more loosely, to say what's been on my mind, I would not invoke these cushy feelings but rather my more or less dim recollections about the other passages of the novel.

The underlying problem is that the causal cum dispositional terms in which Watzl aims to separate field from margin seem to be insufficiently tightly linked with the content-dependent connections, of relevance versus non-relevance, that separate the distinct ways in which field and margin stand to the theme.

## 6. Chromatic Illumination and Looming Potentialities

Not much has been written in recent analytical philosophy on fore-v-background structures in conscious inference; in particular, not much that goes beyond alluding to the distinctions drawn in a Boring View. An exception, apart from Watzl, from this trend is the account of 'chromatic illumination' due to Horgan, Potrč, and various co-workers.<sup>11</sup> I will dub this team 'HPA'. They concentrate on conscious abduction. Adverting to the frame problem in AI, and Jerry Fodor's (1983) discussion of the Quinean and isotropic character of central cognition, they argue the rationality of abductive inference goes hand in hand with its sensitivity to broad ranges of information possessed by the thinker. Typically, they argue, much of this information is implicitly appreciated in drawing the inference. While not being at the forefront of awareness, it still in some sense registers in consciousness. Indeed, it is epistemically vital that it does, HPA argue. Its doing so explains how abductive inference can be rationally grounded from the thinker's point of view in a way that contrasts with, say, the brute seeming rightness of gut feelings.

Adopting a 'coloring' metaphor akin to Watzl's, HPA say background information 'chromatically illuminate' certain, more foregrounded pieces of information. The analogy is that of light sources affecting how a scene appears, without themselves being seen. When HPA proceed to cashing out this metaphor, they stress, first, that chromatically illuminating

information is not ‘explicit’, and second, that it is associated with ‘looming potentialities’. I shall address these two ideas in turn.

What do HPA intend by the claim that the relevant information is not explicit? One way of understanding ‘explicitness’ here would be in terms of the personal-level representational format of the relevant information. Thus, it might be said that, other things equal, information A is present to one in a more explicit way than information B, if A is verbally articulated, or imagined, or rendered perceptually apparent in greater detail than B is. However, HPA does not have such a personal-level notion of explicitness in mind, but rather one defined by the representational format of the subpersonal processes that, on their view, implement sensitivity to such background information. That information is not explicit, they claim, in that it is not subpersonally represented through the tokening of LOT vehicles or similarly syntactically structured representations. Rather, they suggest it can be regarded as information implicit ‘in the weights’ of the connections among nodes of neural network (cf. Henderson and Horgan, 2011, p. 224).

However, this conception of the subpersonal systems implementing conscious abduction seems, all by itself, to tell us rather little about how (if at all) implicit information manifests in consciousness. Notoriously, a network can give correct classifications or predictions, given such-and-such inputs, without it being clear, to its designers or to theorists analyzing it, just how it goes about doing it.<sup>12</sup> In such cases, it is far from clear why the information associated with its weights should be any more readily available to an agent for whom the relevant network constitutes parts of her cognitive architecture. To be sure, the burgeoning research on neural networks contains various streams of work on how networks can be structured so as to make the grounds for their classifications (to put it loosely) more apparent.<sup>13</sup> However, the need for some special design here underscores the point that information attributable to the weights in a network system need not, absent special designs, be a readily available matter. This is not to say, of course, that HPA are wrong about the subpersonal architecture, just that the notion of inexplicitness, glossed in these terms, does not seem all that revealing of how the relevant assumptions figure in or for consciousness (a claim with which HPA may well agree).

The second way in which HPA spell out what it is for some background information to chromatically illuminate more foregrounded considerations invokes the suggestive phrase of ‘looming potentialities’. Concerning the case of Joke Getting, they write:

One’s appreciation of implicit background information manifests itself experientially, in part, via an aspect of ‘looming potentialities’ concerning the joke, viz., *a sense that one could*, if suitably prompted by others or by oneself, manifest one’s appreciation of

such information – in overt linguistic behavior, and/or by explicitly bringing such information to mind in one’s conscious thought. One kind of looming potentiality, for example, is *the capacity* to spontaneously arrive at consciously explicit answers to suitable background-probing questions. (Roughly how old is the babysitter? Who is the ‘she’ who figured out that the guy is having the affair with babysitter? Etc.)

(Horgan and Potrč, 2010, p. 166; my italics)

Here, and elsewhere in HPAs writings, there are pointers towards different interpretations of looming potentialities. On a deflationary construal, they consist in a capacity to use such-and-such information in so-and-so ways, e.g., to answer certain questions. On a more inflationary interpretation, they consist in a *sense of* such a capacity.

The deflationary interpretation seems too deflationary. The capacity to bring information consciously to mind so as to answer questions bearing on that proposition, or on logically related propositions, it is not specific to background information relevant to the foregrounded conclusion at hand. As noted earlier in Section 4, any old proposition known very well and easily recalled meets that condition. Besides, the inflationary interpretation seems a better fit for the phrase ‘looming potentiality’, suggesting as the latter does that there is not (merely) a potentiality but one that ‘looms’.

How, though, is the posited ‘sense of capacity’ to be construed, more precisely? One, rather natural, way to go here is to construe the ‘sense of. . .’ idiom as patterning with ‘thought of. . .’, ‘idea of. . .’, etc. That is to take the phrase ‘sense of capacity’ as purporting to refer to an intentional state of some sort, where the expression following ‘of’ specifies its intentional content. The sense of capacity would, then, be a mental state intentionally directed at a certain capacity. Yet what would its intentional content be, more precisely?

One might think its content would be, quite simply, that one has the capacity to bring out the relevant as-yet-unarticulated considerations. After all, the intuition we are supposed to capture here, or so one might think, it not just that we have a sense of a capacity to do *something or other* with the inference at hand – translate it into another language, commit it to memory, write it down, or what have you – but that one can spell out, or somehow make clear, that the conclusion holds because certain (as yet unarticulated) considerations. HPA indeed stress the content specificity of chromatic illumination:

[T]he ‘getting it’ aspect of experience is not some generic feature, such as experiencing oneself laughing or inclined to laugh (perhaps without knowing why). Rather, it is quite content-specific: some particular item(s) of explicitly conscious content (in this case, what the

guy at the bar is saying, and his obvious consternation) is appreciated as funny by virtue of how those explicitly conscious items are relevantly interconnected with a rich body of pertinent background information. Thus, all those *specific* items of background information are implicitly present in the conscious joke-getting experience, by virtue of the *specific* way that the experience is chromatically illuminated.

(Horgan and Potrč, 2010, pp. 164–165;  
original italics)

Suppose, then, that the sense of capacity, in Joke Getting, includes a sense that one could, upon the question of the age of the babysitter being raised, make clear that she is a teenager, where this presumed fact about her age – dub it Teenager – is among one’s background assumptions. Teenager, then, turns out to be part of the intentional content of the mental state that is, or constitutes, the sense of capacity.

Yet how is Teenager represented, by virtue of being part of the intentional content of the relevant mental state? If the sense of capacity represents (inter alia) Teenager in a way that is attentive or explicit or otherwise associated with foregrounded assumptions, we would expect the wrong prediction, viz. that Teenager is foregrounded. On the other hand, if it is represented in a way, call it  $W^B$ , apt to make for backgrounding, the question arises just what way this is. Recall that a sense of capacity was invoked precisely to account for how assumptions, such as Teenager in Joke Getting, can be implicitly, yet in some sense nevertheless consciously, appreciated in inference, figuring in a backgrounded way. If we invoke a sense of capacity to account for the way,  $W^B$ , in which the sense of capacity to offer Teenager if so-and-so queried presents Teenager, we clearly risk vicious circularity or regress. If, on the other hand, we offer some other story of  $W^B$ , including, as a limiting case, a view of  $W^B$  as a theoretical primitive in the characterization of consciousness, why could we not invoke  $W^B$  directly in accounting for how Teenager and kindred assumptions are entertained? To posit a sense of capacity, in which Teenager is represented as part of a representation of what one has a capacity to make clear, would then seem to be a complicating maneuver not clearly called for.

These considerations suggest that, if invoking a sense of capacity is to account for a certain backgroundedness, other than mere inattentiveness, enjoyed by such assumptions as, say, Teenager in a case like Joke Getting, and the sense of capacity is indeed an intentional state, then that state better not be construed as including Teenager as part of its intentional content. How, then, is it to be construed? Could it be simply *de re* with respect to the underlying capacity? That is to say: could it take the form of a sense that one has *this* capacity, where the capacity thereby referred to *is* in fact a capacity to offer (inter alia) Teenager, if so-and-so



queried, although it is not *represented* as such? That proposal however seems to offer no account of how a suitable sort of specificity is secured. Although the capacity referred to *is* the specific capacity it is, nothing as yet accounts for how it is that it shows up mentally in some suitable, relevant way, given this *de re* state. Consider the following analogy. A person you are seeing may well *be* your old, red-haired, snub-nosed friend. If that is all we know, however, it is left open whether you are seeing him up-close and recognizably, or in the distance, at dusk, from behind, neither visibly red-haired, snub-nosed, nor even vaguely familiar to you.

Another way of downplaying the specificity of the sense of capacity, not going down the route of *de re*, is as follows. The sense of capacity represents, it might be said, merely a capacity to defend, or anyhow spell out, the inference, leaving open in terms of just what considerations the defense or articulation will proceed. This may seem too unspecific, though. Recall our contrast between Sally and Sally\* in Section 4. They both conclude that they have been wasting many months on Sam, for he is a HA member, and. . . . For Sally, thoughts of the criminality of HA would fill out the lacuna; for Sally\*, thoughts of their noise and swagger. Part of the motivation for Interesting Views was the notion that this difference in background assumptions might go with a difference in their overall cognitive experience. If their different assumptions show up merely as a sense that they could spell out why Sam has been a waste, we have not captured this difference. If, on the other hand, we take their respective senses of capacity to include the distinct specific considerations in terms of which they would spell out the inference, we are back with the dilemma pointed out two paragraphs earlier.

In view of these difficulties, one might question whether our step of construing the sense of capacity as an intentional state was a misstep. Perhaps the ‘of. . .’ in ‘sense of capacity’ should be taken to pattern with ‘sense of joy’, ‘experience of grief’, or ‘feeling of despair’. On this construal, the phrase following ‘of’ serves to classify the mental state in question, but not because it refers to or expresses part of an intentional content attributable to that state.<sup>14</sup>

A parallel worry of specificity arises, however. If the sense of capacity is a non-intentional state – a raw feel, if you wish – we still need to ask how these feels can and do vary. If they are comparatively generic, being, say, common to Sally and Sally\*, they do not allow us to draw the distinction we wanted. What about the proposal that these feelings are, instead, highly specific, coming in myriad different flavors corresponding to the different specific background assumptions on which one might be relying? While this proposal avoids the problem for the intentional construal, viz. of embedding the very background assumptions as the intentional content of the feeling, it commits us to a faintly baroque duplication in the mind. Not only can one entertain myriad different contents, such as Teenager: one can also feel in myriad subtly different ways that, while

they somehow correspond to or are correlated with contents, remain raw feels and are not intentionally directed accordingly. At the very least, it is worth considering whether such a baroque view could be avoided.<sup>15</sup>

## 7. Husserl on Horizon

HPA's descriptions of how background aspects in conscious thought manifest as 'looming potentialities' recall Husserl's account of what he called the 'horizon' of an act of consciousness. In one of his summary presentations of this aspect of consciousness, Husserl writes:

Every subjective process has a process 'horizon' . . . – an intentional horizon of reference to potentialities of consciousness that belong to the process itself. For example, there belongs to every external perception its reference from the 'genuinely perceived' sides of the object of perception to the sides 'also meant' though not yet perceived, but only anticipated.

(Husserl, 1933/1960, p. 82)

The horizon of an act of consciousness, as Husserl conceives it, illustrates inattentive backgrounding, as attention is not yet drawn to things that are as yet 'only anticipated'.<sup>16</sup> More to the present point, his view of horizons connects with HPA's views for two reasons. First, although Husserl's paradigm example of horizons in consciousness are from vision – specifically, the implicit sense that there's more to be seen of a chunky object in view before us than what is manifest from our present viewing angle – he takes possession of a horizon to be a feature of any conscious process, which for him includes thinking. Second, and more specifically, there is a striking kinship between HPA's talk of 'looming potentialities', and of our having 'a sense of capacity', and Husserl's phrase 'reference to potentialities of consciousness'. As for HPA on looming potentialities, a distinction can be drawn here between a deflationary and an inflationary construal of Husserl's turn of phrase. On the deflationary reading, the key point is that *there are* certain further potentialities of consciousness associated with an actual conscious process. On the inflationary construal, the key point is not (only) that there are these potentialities, but that something about the actual process or act of consciousness ensures that there is therein 'reference to' (*Verweisung auf*) these potentialities.<sup>17</sup> The questions how such a 'reference' should be understood (as a case of intentional directedness to the things referred, as a raw feel, or something else?), and, in particular, its degree of specificity, thus arises also with regard to Husserl's notion.

Now, out of Husserl's wide-ranging reflections concerning horizon, developed over decades, I shall here rest content with highlighting two putatively central suggestions, that seem helpful in connection with our

present concerns. The first has to do, roughly, with what happens when something anticipated comes to pass. Husserl writes that accounts of the horizon of acts of consciousness bring out

not only the actual but also the potential subjective processes, which, as such, are ‘implicit’ and ‘predelineated’ in the sense-producing intentionality of the actual ones and which, when discovered, have the evident character of processes that explicate the implicit sense.

(Husserl, 1933/1960, p. 85)

Husserl’s claim about the certain ‘evident character’ here concerns, in the first instance, the phenomenological inquirer who ‘discovers’ the relevant features of consciousness. When this inquirer succeeds in linking such-and-such potential conscious acts to so-and-so actual ones, the former will, for her, have that evident character of explicating something implicit in the latter. However, since this inquirer is supposed to discover this through first-personal reflection on (including sympathetic imagination of) the conscious acts or processes in question, one might read Husserl as suggesting that at least some analogous sort of ‘evident character’ applies to the underlying acts of consciousness reflected upon. If you are seeing what strikes you as uniformly white football, then the experience of seeing more uniform whiteness upon spinning it around, or walking around it, will have a certain ‘evident character of making explicit’ something implicit in your prior experience. Presumably, this ‘evident character’ is at least akin to a sense of expectation-fulfilment upon finding what one anticipated or was on the look-out for.<sup>18</sup>

This idea offers help with the problem, noted at the end of the last section, of suitably distinguishing between Sally’s and Sally\*’s conscious inference. As we saw, the suggestion that they each have a (fairly unspecific) sense of a capacity to spell out the grounds for their conclusion does not differentiate between them. Yet suppose the relevant capacity is triggered, thanks to a query after the grounds. If thoughts of HA’s criminality come to the fore for Sally, they will (the suggestion goes) have a character of making explicit something as yet implicit. If, on the other hand, thoughts of HA’s noise and swagger drew her attention, they would lack such a character (though Sally might, of course, still accept them as true). For Sally\*, meanwhile, vice versa. Even if the capacity is not triggered, there is a dispositional difference between the two thinkers here that, arguably, helps account for the difference in their conscious thinking.

I am inclined to think there is a dispositional difference of this sort, and that it has a role to play in the story of how Sally and Sally\* differ in their conscious inferential thinking.<sup>19</sup> I am less sure, though, whether it is the full story. It is tempting to think that there also is, or at least might well be, a more occurrent, more-than-merely-dispositional difference between them.

The second aspect of Husserl's account of horizon to which I will draw attention provides clues, I think, for a way in which they can differ, a clue having to do with the degree of specificity in the 'reference to potentialities' of consciousness. Husserl underscores that horizons are characterized by a certain indeterminateness.<sup>20</sup> For example, the perception of a die, from a given angle

leaves open a great variety of things pertaining to the unseen faces; yet it is already 'construed' in advance as a die, in particular as colored, rough, and the like, though each of these determinations always leaves further particulars open. This leaving open, prior to further determinings (which perhaps never take place), is a moment included in the given consciousness itself; it is precisely what makes up the 'horizon'.

(Husserl, 1933/1960, p. 82)

The indeterminateness is comparative: the intentional content of certain anticipations that characterize the horizon is less determinate than the content of some (as yet merely potential) intentional states that correspond to these anticipations. For example, a perception of the backside of the die (as yet a mere potentiality) would give a more detailed and specific presentation of its color, roughness, and so forth, than what is represented regarding these features already at the level of the horizon. Likewise, in conscious non-demonstrative inference, a horizon here would be expected to provide a more indeterminate and generic indication of the considerations in terms of which the inference could be spelled out, and which the thinker may be disposed sooner or later to offer, than the contents of those considerations themselves.

Is there reason to think such comparatively indeterminate representations are in play, in anything like the way suggested by Husserl? The next section finds support thereof in psychological work on gist or schema representations in perception and memory.

## 8. Gist in Perception and Memory

Our somewhat indeterminate sense of the die's backside, in seeing it from a certain angle, exemplifies what Husserl distinguished as the 'inner horizon' of our perception of that object. That it so say that it has to do with the perceived object itself more than its relations to its surroundings. Our perception also has, Husserl argues, an 'outer horizon': a similarly indeterminate sense of the object's setting (cf., e.g., Husserl, 1948/1973, §8; Smith, 2003, p. 75–79). Thus, in a typical case, the die would be perceived to be resting on an approximately even surface such as table (as opposed to, say, hovering mid-air, as soap bubble might); be located in a furnished room (as opposed to an unfurnished one); be

indoors (as opposed to outdoors); be in a built environment (as opposed to a natural scene).

The idea that vision involves such fairly generic representations of setting that objects before us inhabit is, as it turns out, susceptible of experimental confirmation. Work on so-called gist perception indicates that vision provides representations of the overall gist, or generic type, of the scene before our eyes, of varying degrees of specificity, such as its being, say, an office, a room, indoors, a built environment, and so on.<sup>21</sup> Gist representations are extracted very quickly. Interestingly, they seem not asymmetrically to depend or merely supervene on the perceptual segregation and representation of the individual objects making up the scene. This recalls Husserl's view of outer horizons as at least coeval with, and not merely a consequence of, the perception as of determinate individual objects, of various sorts, making up the scene. Moreover, gist representations themselves require little attention, but play a role in directing attention within the scene.

While recent experimental work on gist perception is, in these regards, congenial to some important Husserlian views on outer horizon, there is to be sure the important difference that Husserl purports to be describing conscious experience while recent experimental work on gist perception tends to prescind from claims about consciousness. However, Fish (2013) and Bayne (2016) have recently argued, I believe plausibly, that gist representations can, and often do, figure as aspects of the phenomenal character of perception.

The idea that we form an impression of the gist, or generic type, of scenes before our eyes was much stressed by the psychologist Frederick Bartlett:

Suppose an individual to be confronted by a complex situation. . . . [I]n this case an individual does not normally take such a situation detail by detail and meticulously build up the whole. In all ordinary instances he has an over-mastering tendency simply to get a general impression of the whole; and, on the basis of this, he constructs the probable detail. Very little of his construction is literally observed and often, as was easily demonstrated experimentally, a lot of it is distorted or wrong so far as the actual facts are concerned. But it is the sort of construction which serves to justify his general impression.  
(Bartlett, 1932, p. 206)

The content of the 'general impression of the whole' here corresponds to the content of a gist representation. Such impressions not only play a role in perception, Bartlett argues, but also, importantly, in memory, where they influence what is recalled. For example, when later trying to recall a story apt to strike one, generically, upon first hearing it, as concerning a battle, one would, other things equal, be more likely to recall – or

misrecall – certain weapons being used (as one would typically expect to be in a battle) than one would be to remember such putatively irrelevant points of information as the names of the protagonists (Bartlett, 1932).

Several studies on memory, from the 1970s onwards, have supported this point. Taking over a term, ‘schema’, of Bartlett’s, although recasting its theoretical content, these studies posit, under that label, comparatively generic representations of various categories, representations that include, or are linked with, a cluster of tacit expectations of what would typically be go together with the category in question. Thus, a schema for office might include the expectation that it is an indoor space, with desks and chairs, computers, books or papers. Having been presented with a scene apt to trigger this schema, subjects are, other things equal, more likely later to recall it – or misrecall it – as containing schema-related objects of the noted sorts than they are to recall such schema-unrelated objects as, say, a rug on the floor (Brewer and Treyens, 1981; Webb, Turney, and Dennis, 2016). In a similar vein, studies of how classic experiments are reported in the scientific literature, or described by working scientists in the relevant areas, suggest that the findings of these experiments are recalled as skewed in direction of what one expect an experiment stereotypically to deliver (Vicente and Brewer, 1993). These findings fit broadly with the picture Bartlett outlines when he suggests that much, if not all, of the ‘probable detail’ recalled is served up through an unconscious, constructive process, geared at yielding an overall recollection wherein that detail ‘justifies’ or, as Bartlett (1932, p. 207) also puts it, ‘satisfies’ or ‘fortifies’ the general impression.

As in perception, there is evidence that such schematic, or gist-directed, representations in reasoning and recall require little attention. Subjects are more easily distracted, resulting in poorer performance, in tasks requiring more specific, detailed representations than in those apt to be solved in terms of gist representations (Abadie, Waroquier, and Terrier, 2016).

Again, as in the case of perception, work on schematic or gist-directed representations in memory and reasoning since the 1970s has largely pre-scinded from claims about consciousness. Bartlett, however, stressed the conscious dimensions of recall. Elaborating on ‘the general impression of the whole’ posited in the passage quoted earlier, he writes:

Ask the observer to characterise this general impression psychologically, and the word that is always cropping up is ‘attitude’ . . . . The construction that is effected is the sort of construction that would justify the observer’s ‘attitude’. Attitude names a complex psychological state or process which it is very hard to describe in more elementary psychological terms. It is, however, as I have often indicated, very largely a matter of feeling, or affect.

(Bartlett, 1932, p. 206–7)

To illustrate, Bartlett says one's 'attitude', in recalling a story, might be characterized by a feeling or sense of the story to be recalled as being 'exciting', 'adventurous', 'like what I read when I was a boy' (1932, p. 207) or meriting some similar, fairly generic label.<sup>22</sup>

In earlier work, I have argued that conceptual content contributes to the conscious character of thinking by providing its thematic unity.<sup>23</sup> For example, suppose you are thinking of a certain school you are contemplating attending. This will not, typically, be not (just) an experience of visualizing such-and-such constellations of shapes and colours (ones typical of school buildings, classrooms, teachers, etc.), having so-and-so phonological strings floating through one's mind (intoning, say, what happens to be the name of the school, or the courses one will be taking), having various ticklish, nervous or excited sensations in one's stomach, etc. In so far as one's thinking implicates such imagery or sensations they are not, typically, experienced as not having anything to do with one another. Rather, in such an episode, the sensory-affective contents would typically be felt to revolve around a common subject matter or theme, viz. one provided by the conceptual content of one's thinking, such as, in this case, a content along the lines of *what would going to this school be like?*

In that earlier work, it was left open how overarching or specific the relevant thematic-unity-providing conceptual contents would be. It is plausible to think, however, that episodes of thinking can have overlapping unities of subject matter, at different levels of grain. Consider the experience of comprehending a story of a Sunday outing. This cognitive episode might be unified overall as concerning a trip to the beach. At more fine-grained levels, it might be unified as having to do with, first, the drive to the beach, then a struggle of parking the car, then finding a place to put up a tent, etc.<sup>24</sup> In such a case, the more fine-grained unities would, typically, be experienced as filling in details of the more coarse-grained, overarching thematic unity. Plausibly, the sense of the detail as 'filling in' an outline here is akin to the feature of recollection alluded to by Bartlett, when he says the detail justifies, satisfies, or fortifies one's general impression.

I will propose, then, that Bartlett's 'attitudes' illustrate, with regard to the content of the 'general impression' they convey of what is there to be recalled, a special case of thematic unity, provided by conceptual content. In particular, it is a case thereof where the unity is of the fairly generic, coarse-grained nature typical of schemas. I will refer to this special case of thematic unity as 'thematic gist'. The next section outlines a role for such thematic gist in conscious inference.

## 9. Thematic Gist in Conscious Inference

Conscious inferences are, I will assume, conscious in at least the following respects. The conclusion of the inference, C, is consciously entertained,



as are at least some of the grounds from which C is inferred. Label the grounds so entertained 'G'. Moreover, the subject has some sense, notion, or 'grip', at the level of consciousness, of the relevant grounds G as bearing a suitable support or implicational relation to C.<sup>25</sup> To fix ideas, I will assume the latter relation takes the form of natural meaning, in the sense of Grice, in the cases where the conclusion is categorically endorsed on the basis of the relevant grounds.<sup>26</sup> However, nothing will hang on this choice among candidate support or implicational relations.

The sense of G as meaning (/implying/supporting/. . .) C can, I will propose, go along with, or take the form of, a certain sense of how or why G means C. One's grip on G, C, and their interrelations, can be such that one has a feeling of G as *elucidably* meaning C. To get a rough idea of the kind of 'feeling' or 'sense' at issue here, it may be useful to contrast the non-demonstrative inferences we have been considering with a simple, basic and immediate deductive inferential step. Consider, say, a conjunction elimination inference, from the presumed fact that P and Q to the conclusion that P. Here, if faced with the question how or why the presumed fact that P and Q means that P, one would typically find oneself, straight off the bat, drawing a blank. At least at first blush, one would typically be at a loss for what if anything that even could elucidate how or why this is so.<sup>27</sup> Conscious non-demonstrative inferences are, it seems, typically quite different. In finding the presence of my partner's car outside to mean that she's at home, in Car Means Home, I seem to be alive to the possibility of spelling out or elucidating how or why this is so. I may not already consciously entertain the specific answers I potentially could articulate. I may not already consciously have in mind, even in an inattentive way, such specific assumptions as, say, that she tends to take the car if going out, at least until around mid-to-late afternoon, and at least if it is raining or rain threatens (which it does). However, I might, and perhaps not uncommonly do, already entertain an idea of the gist or drift of these considerations. This gist is one that I could, perhaps, give voice to in some such words as 'The car's being there means she's at home – because, you know, her habits of getting around, and the weather', or perhaps something even more schematic as '. . . because, you know, her habits'.

More generally, then, one could be said to have a sense of G as meaning C, elucidably, viz., along the lines of H. Otherwise put: one could be said to have a feeling of G as meaning, because of H, C. Here, 'H' holds the place for a schema or gist representation, adverting to the drift of a possible elucidation. In Husserlian terms, H predelineates certain further thoughts, spelling out how or why G means C. What fills the place of H are as it were keywords dimly plastered in consciousness.

Having such a sense or feeling would, at least typically, involve or manifests in a disposition, upon the question arising how or why G means C, not only to venture to explain (to oneself or others) that this is so because

of such-and-such considerations,  $H^*$ , having to do with  $H$ , but also to find such considerations, when brought consciously to mind, as fitting in with the already assumed gist,  $H$ . To speak with Bartlett, the considerations  $H^*$  occur to one as ‘justifying’, ‘fortifying’, or ‘satisfying’  $H$ . To speak with Husserl, they have ‘the evident character’ of explicating the anticipated theme.

Such a disposition might be finkish (or, to be precise, ‘reverse cycle’ finkish, cf. Lewis, 1997): raising the question how  $G$  means  $C$  might prompt one to reconsider whether  $G$  means  $C$  at all, or whether, in so far as it does, it has anything to do with  $H$ .<sup>28</sup> Also, it is a good question to what extent one needs to be able to offer considerations  $H^*$  that are appreciably more specific or detailed than  $H$  itself. Perhaps all one is able to offer, at least in any outwardly articulated way, in a case where  $Car$  is taken to mean Home because of travelling habits, would be something like: ‘Well, you know, because of the way she tends travel around’. This would effectively amount to a restatement rather than an elaboration of  $H$ . However, even in this case, there would, typically, be an awareness of the potential for more to be said about these travelling habits, of relevance to the question at hand, even though one might not succeed in readily articulating these matters or clearly recalling it from memory. This is another reason not simply to reduce the sense or feeling of  $G$  as elucidably, viz. along the lines of  $H$ , meaning  $C$ , to a disposition to offer specifications of  $H$ .

What does the view thus outlined imply for fore-v-background structures in conscious non-demonstrative inference? If the generic, gist-like representations, playing the role of  $H$ , are a case of thematic gist in the phenomenology of thinking, they partially constitute the phenomenal character of one’s thinking. They would, then, not be generically phenomenally backgrounded. However, in as much as such representations demand little attention, they may be expected to be inattentively backgrounded to other aspects of one’s inference, such as the conclusion, or certain salient grounds. In proposing that inattention may leave aspect of one’s mental life conscious, though peripherally so, the view is, of course, in line with Watzl’s picture. However, it offers another account of how these generic representations differ from mere marginal awareness. They differ from the margin not, or not merely, thanks to the causal cum dispositional properties Watzl adverts to in his account of the coloring and sustaining periphery, but because their conceptual content provides a gist – a form of overarching thematic unity – that subsumes, in a putatively illuminating way, the conclusion reached along with any more foregrounded reasons, as well as further information that the subject may be disposed to provide to elaborate the gist in question.

The outlined account agrees with that of HPA in holding that conscious non-demonstrative inference has an aspect well captured by their suggestive phrase ‘looming potentialities’. The account seeks a balance between too much and too little specificity in the ‘looming’. On the one hand, the

content of the specific considerations that the thinker, typically, can spell out does not loom to her; on the other, it is not left entirely open what their content might be: their gist, or drift, is what looms. The word 'looming' connotes something approaching, impending, or similarly future-directed, an orientation explicit in Husserl's characterization of horizons as involving a certain anticipation. The role gist-representations have been found, by Bartlett and later researchers, to play in recall fits in with their having a future-directed character, in so far as the representations figure in an 'attitude' felt as playing a role in setting up and controlling the process of retrieving further details from memory. Even if no such further details are immediately forthcoming from the process, it is of a piece with their figuring for in the manner of keywords that there is an awareness as of there being at least the potentiality of such further details turning up.

The more specific considerations,  $H^*$ , spelling out  $H$  are indeed availability backgrounded. However, unlike myriad well-known familiar facts that putatively are not at all on one's mind in the situation at hand – what one's name is, where one lives, whether cars typically weigh more than bicycles, etc. etc. – they are not *merely* so backgrounded. For one thing, they fall under a gist consciously entertained. For another, the thinker is disposed, by virtue of entertaining that gist, to experience them as filling in that gist, upon their consciously coming to mind. We may say, just to put a label on it, that they are condensed-into-gist backgrounded.<sup>29</sup>

How pervasive is thematic gist, and the just-outlined correlative fore-v-background structures, in personal-level non-demonstrative inference? I have not sought to establish it is universal or even widespread. The aim, rather, has more been to articulate a possible structure of consciousness, one that fits with, or at least is in the spirit of, independently plausible phenomenological claims, and that draws on well-attested psychological mechanisms. The phenomenological claims include the idea that attentiveness can make for a fore-v-background structure within phenomenal consciousness; that an important aspect of our consciousness of things, at least often, is an attendant sense that there is more to be gathered or made clear about the things in question; that conceptual content can bestow thematic unity on thinking; and that there can be a feeling of fit or rightness when information occurring to us fits certain expectations. The psychological mechanisms include the role of gist representations or schemas in memory and recall. I take to be plausible that thematic gist actually characterizes at least some conscious non-demonstrative inferences, and perhaps commonly does so. Exploration of its actual incidence must however be left for another occasion.

## 10. Conclusion

Conscious non-demonstrative inferences often seem to rest on rich body of assumptions that are unequally salient in or available to consciousness.

A fore-v-background structure, or several such structures, seems to hold across them. According to Boring Views such structures can be described by specifying, for the various assumptions in question, whether they are phenomenally conscious, or access conscious, or else how easily available they are to such consciousness. Interesting Views hold that this is not the full story of fore-v-background structures. I have gestured at some reasons for thinking Interesting Views at least merit exploration. Building on recent work due to Watzl, and to Horgan, Potrč et al., though modifying, supplementing, or buttressing some their ideas (drawing here on some of Husserl's views on horizons of acts of consciousness, and on psychological work on gist representations in perception and memory), I have outlined a conception of thematic gist in non-demonstrative inference. According to this view, background assumptions in non-demonstrative inferences may be condensed into a consciously, although inattentively, entertained notion of the drift of a possible elucidation of how or why such-and-such salient grounds mean (or imply, or support) that so-and-so conclusion holds. Having such a notion explains why one is disposed, upon seeking to offer such an elucidation, not only to give an account with the relevant gist but also to experience it as filling in an already anticipated outline.<sup>30</sup>

## Notes

1. See, e.g., Carroll, 1895; Boghossian, 2014; McHugh and Way, 2016, 2018.
2. See, e.g., Ludwig, 1996; Ludwig and Munroe this volume; Orlandi, 2014; Rescorla, 2015, this volume.
3. The example is adapted from Nes, 2016, which argues for the aptness of using 'means'. Nothing here however hangs on the choice between 'means' and such alternative expressions as 'implies', 'supports', or 'indicates'.
4. This example is due to Horgan and Potrč, 2010, 2011.
5. For overviews, see, e.g., Bayne and Montague, 2011; Hansen, 2019.
6. In particular, the view developed in Sections 8 and 9 builds on aspects of my defence of a liberal view in Nes, 2012.
7. See, e.g., Davis, 2005, pp. 10–13; Boghossian, 2019, p. 102.
8. For such a view, see Carruthers, 2015.
9. See, again, Carruthers, 2015; Cowan, 2000.
10. To be sure, some other aspects of Sally's current thinking, such as Wasting, might be even more highly activated and available for such systems or capacities. So if these notions of access were a matter of more or less, Wasting might be more access conscious than Crime. But Boring Views, we are assuming, are not grading access consciousness in this way.
11. See Horgan and Potrč, 2010, 2011; Henderson et al., 2017; Henderson, Horgan, and Potrč this volume.
12. See, e.g., Lipton, 2018.
13. Cf, e.g., Lakkaraju et al., 2017.
14. It is worth noting that this construal of 'experience of grief' etc., while it allows for a non-intentional understanding of the mental states in question, does not require it. Even so, if an experience of grief is intentional, what

- makes it the distinctive intentional state it is is not its being directed at grief itself, but rather certain grievous features of one's life or circumstances.
15. In their most recent work, HPA qualify the assumption of content specificity, writing that 'chromatic illumination sometimes might constitute implicit appreciation of some morphological content or other, without constituting implicit information of any specific, fully determinate, morphological content' (this volume, nt. 11). They do seem to hold, though, that content specificity often or even typically holds for chromatic illumination (and so, presumably, for the looming potentialities in terms of which chromatic illumination is cashed out). If they do *not* hold this, then the account outlined in what follows may turn out to be congenial to HPAs most recent view, at least as far as the issue of content specificity goes. The account outlined in this paper could then be regarded as one that articulates in slightly different terms, and motivates from somewhat different angles, the just cited suggestion of HPAs.
  16. See Husserl, 1913/1983, §27, §83. Cf. also Smith and McIntyre, 1982, pp. 236–239, and nt. 20.
  17. I do not purport to suggest that 'reference' in these passages of Husserl's means what it means in post-Fregean analytical philosophy of mind and language. The point is just that their inclusion suggests there is more to the horizontal dimension than the mere capacity for or potentiality of such-and-such further conscious acts.
  18. In their most recent work, HPA make a closely related point, noting that 'the conscious answers [to probe questions about an inference] are not experienced as arising 'out of the blue,' with no intuitive sense of why or how they are pertinent to the funniness of the joke' (this volume, p. 244).
  19. To say the posited difference between Sally and Sally\* here is dispositional is not to say that it is merely counterfactual, *pace* Yoshimi's (2016) construal of what a Husserlian horizontal dimension of consciousness comes to. Notoriously, a mere counterfactual difference could be secured by a 'counterfactual intervener' causing Sally and Sally\* to have suitably different feelings in the event that so-and-so questions arise even if they are psychologically the same prior to the question arising.
  20. Smith and McIntyre, 1982, p. 238 *et passim* stress this aspect of Husserl's views of horizon. They make the further move of distinguishing two sorts of horizon, a 'horizon of indeterminacy' corresponding to the present aspect, and a 'horizon of inattention' corresponding to the aspect of inattentiveness noted earlier (cf. nt 12 and attached text). However, as they acknowledge, Husserl characterizes horizons, under the same heading, is in terms of both inattention and indeterminacy, in such works as *Ideas* (1913/1983). At the very least then, he supposed these forms of horizon to typically go hand in hand.
  21. For a review, see Aude, 2015.
  22. Though Bartlett says 'affect', it is clear from his examples and discussion that the feeling in question need not have much in the way of affective valence, i.e. a pleasant or displeasing tone, but could be largely cognitive, as in the case of a sense of confidence or hesitation. See also Larsen and Berntsen, 2000.
  23. Nes, 2012.
  24. Schemas for how activities, of such-and-such types, stereotypically unfold are often referred to as 'scripts', cf., e.g., Schank, 1999.
  25. For an argument that these features are required for conscious inference, see Nes, 2016.

26. See, again, Nes, 2016.
27. Given some formal schooling in logic, one could come up with something to say here, e.g., invoke a theoretical characterization of logical consequence. The point is that the capacity to offer such a reply seems optional in relation to, and not to be in any direct way reflective of, the structure of one's conscious awareness in competently drawing the inference.
28. Cf. nt. 15 and attached text.
29. The 'condensation' posited here might recall, but should be distinguished from, Siewert's (1998, p. 278) description of thoughts that are 'remarkably complicated, so that to say what one was thinking would require a lengthy syntactically complex utterance – but [that nevertheless] occurs, wordlessly, without imagery, condensed, and evanescent'. For Siewert, 'condensation' does not imply that the complicated content of these thoughts is not, all of it, consciously entertained, but rather relates to how that content is, as it were, lifted out and freed in consciousness from the burdens of the words or imagery needed to articulate it. In contrast, the entire content of thoughts that are condensed-into-gist backgrounded are not consciously entertained, only their gist it. I do not deny some thought are condensed in Siewert's sense, but want to suggest at least some background assumptions that seem somehow to manifest in consciousness are better construed as condensed-into-gist backgrounded.
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