

On the Phenomenology of Déjà vu

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“I have found myself in a new position with a distinct sense that I had been there or experienced it before.” Riley (1988, p. 449)” (Brown 2004, 15)

“For a few precarious seconds, the chaplain tingled with a weird, occult sensation of having experienced the identical situation before in some prior time or existence. He endeavored to trap and nourish the impression in order to predict, and perhaps even control, what incident would occur next, but the afflatus melted away unproductively, as he has known beforehand it would. *Déjà vu.*” (Heller 204)

Introduction

The literal translation of déjà vu is “already seen.” However, the term ‘déjà vu’ has been used throughout history to refer to an experience notably distinct from ordinary recognition. Intellectuals have attempted to explain déjà vu since Plato, Aristotle, and even Pythagoras (Brown 2004, 113). Investigation of déjà vu even became a popular topic in the medical community in the mid-1800’s as many debated whether the experience indicated a mental pathology (Brown 2004, 2). Despite its storied cultural presence, déjà vu research in science has been severely stunted (Brown 2004, 6). The behaviorism movement slowed the investigation of internal experiences entirely, déjà vu included. Déjà vu research was further stymied as many proposed déjà vu theories came from now discredited psychodynamic or parapsychological approaches, and empirical scientific research has struggled without a reliable method to reproduce the experience.

Today, déjà vu research has gained sophistication in both psychology and neuroscience. Alan Brown’s “the déjà vu experience,” published in 2004, reviewed déjà

vu research and subjected it to empirical criticism, making the déjà vu experience significantly more viable as a subject of scientific research. Even so, there has been little to no philosophical work on the phenomena corresponding with this recent neuroscientific and psychological work. In this paper, I will defend an explanation of the way that déjà vu feels. More technically, I will defend a representational theory of the phenomenal character of the déjà vu experience.

Defending a representational theory of déjà vu

Representational Theory of Déjà vu: For a subject to experience déjà vu is for feature(s) of the subject's experience to be represented as having already been experienced while simultaneously having it represented that the subject will soon be able to recall a memory of the recognized feature(s) even though she finds she cannot recall this memory while these representations are concurrently present.

To defend this theory, I will begin by briefly arguing that we have reason to believe that subjective accounts of déjà vu refer to a genuine and unique experience that deserves explanation. Then, I will defend the representational contents necessary to my theory as independent contents of conscious experience and argue that they are necessary for déjà vu. In the process, I will also defend the particular relationship of these contents that is necessary and sufficient to instantiate déjà vu.

Methodological Concerns

At the outset, I would like to address two methodological concerns. First, I will address the presuppositions I will make about the nature of consciousness in this work. Second, I will discuss theorizing about déjà vu as a state of consciousness.

I will assume a representationalist approach to explaining consciousness.¹ In developing my theory, I will argue that consciousness can represent recognition familiarity (r-familiarity)² and the feeling of imminent recollection and that representing these contents in a certain way is necessary for the déjà vu experience.

In my discussion of déjà vu, I will seek only to explain déjà vu as a state of consciousness. Today, the term 'déjà vu' is often used outside of the context of conscious experience (Brown 2004, 17). Most famously, Yogi Berra is accredited with saying, "it's like déjà vu all over again." This use of the term is quite common. Brown mentions that a sports team's ability to repeat last year's victory may now be intelligibly referred to as a déjà vu of the previous year. Cases with this kind of word use, where déjà vu refers to an oddly particular repetition of events rather than an experience of any kind, are irrelevant to this investigation.

The method of phenomenal contrast

There has been little philosophical work done to establish so-called "fringe" contents of experience such as recognition familiarity and imminent recollection as independent

¹ There are alternatives to representationalist explanations of experience. The "raw feels" view argues that all of the phenomenal content of the experience is a "raw feel" or "Reidian sensation," separate from the representational factor of the experience. A reader interested in arguments for representationalism can refer to Crane 2003, Harman 1990, Tye 1994, and Tye 2002. A reader interested in arguments for a raw feels approach should see Davidson 1986. For a Reidian approach, see Reid 1764 or Siegel's interpretation of Reidian sensations in Siegel 2010, p. 94.

² The term 'familiar' can be taken in many subtly different ways. In a later section I provide a defense of the distinction between two kinds of familiarity, recognition familiarity and kind familiarity, which I use throughout the paper.

contents of consciousness. In “Cognitive Phenomenology on the Fringe,” Peter Forrest introduces general characteristics of fringe contents of experience. He categorizes fringe contents as having locating properties or evaluative properties, representing the presence of something in the mind or the rightness or coherence of an experience (Forrest). However, Forrest also notes that he doesn’t know how to approach the question of whether recognition familiarity “literally represents the property of familiarity or not” (Forrest 14).

In order to defend my theory of *déjà vu*, I will argue for the existence of several independent contents of consciousness before I work them into a theory of the phenomenology of *déjà vu*. I will use the method of phenomenal contrast developed by Susanna Siegel to do so. In “The Contents of Visual Experience,” Siegel uses this method to defend contents of visual experience such as causation, familiarity, and many others, and it is a replicable model for the defense of any representational content as a plausible content of experience (Siegel 87).

In using this method, a pair of experiences that have a clear phenomenal contrast are set forth. Under a representationalist theory of experience, when a phenomenal contrast is present between two experiences, there must be some difference in the contents represented by those experiences. The target content is defended as a possible content of experience by arguing that the presence of the content in one experience and not the other is the best possible explanation of the phenomenal contrast

As a demonstration, I will use this method to defend the color blue as representable in visual experience. First, I would consider two experiences with clear phenomenal contrast: the experience of seeing a black square and the experience of seeing a blue square that is identical in all phenomenal respects but color. Then, I would consider several explanations for the phenomenal contrast, ie the contrast in what it feels like to see each square. The target explanation is that the contrast is best explained by the color blue being a content of experience. However, before accepting this, I would have to first argue that this explanation is better than alternatives such as the suggestion that a difference in another content of experience like shape or light intensity could account for the contrast. If this argument is made successfully, I will have successfully defended the color blue as representable in conscious experience. I will use a nearly identical process to argue for r-familiarity as a content of visual experience and use slight modifications to argue that imminent recollection is an independent content of cognitive phenomenology.

Defending contents as necessary to déjà vu

To defend a representational theory of déjà vu, I will also have to argue that these contents of experience are necessary and sufficient for the experience of déjà vu. To show this, I will compare the déjà vu experience to an experience of déjà vu with one difference in representational content difference and argue that the latter can be better attributed to a different experience altogether and is not déjà vu. For example, if I were to argue that lack of recollection is necessary to the déjà vu experience, I would argue that if a memory is recollected, the experience is no different from the experience of

delayed remembering, which is not déjà vu. If this change in representational content changes the experience from déjà vu, the content was necessary to the déjà vu experience.

Other emotional attribution concerns

In contemporary psychological and neurological research on déjà vu, the operative definition of déjà vu is “any subjectively inappropriate impression of familiarity of present experience with an undefined past” (Brown 2004, 12). However, it would be an error to use such a definition as a starting point to a phenomenal theory of déjà vu.

In formulating a method to investigate déjà vu, it is worth considering that it is among a class of experiences that are intuitively difficult to communicate. While operational definitions are used by scientists to identify the mental state being investigated, these definitions typically function by pointing towards a common experience rather than giving a non-circular definition which gestures towards the experience. Consider two accounts of pleasure, paraphrased from their sources:

- 1) A source of delight or joy (The Merriam-Webster dictionary definition of ‘pleasure’)
- 2) a feeling representing “a net increase in desire satisfaction relative to expectation” (Schroeder 94)

The former is quite circular and is an inadequate account of the way that pleasure feels. For most people, it does the job because the feeling of pleasure is so unambiguous. However, if you consider which account would have a chance at explaining pleasure to someone incapable of feeling pleasure, the first is empty of

explanatory content while the second gives a worthwhile attempt, not merely pointing vaguely in pleasure's direction but directing specifically to the feeling of pleasure and no other.

In the case of *déjà vu*, a satisfactory type 1 account is impossible because *déjà vu* is ambiguous and infrequent. I cannot not assume that readers know the feeling I am talking about when I say '*déjà vu*' in the same way that philosophers may assume that readers know the feeling being referred too with the term 'pleasure'. While the standard definition of *déjà vu* is used in the psychology and neuroscience of *déjà vu*, it remains vague, operational only by pointing at the experience. Consider that it only separates *déjà vu* from an experience of ordinary recognition by saying that it feels 'inappropriate.' Moreover, it remains to be defended under a representationalist framework.

Lacking a definition of *déjà vu* as a starting point raises the problem of how I can identify the experience I am trying to explain. To anchor my arguments to a particular experience, I will point to a sample of accounts of *déjà vu*. The criteria for inclusion is simply that the person describing *déjà vu* believes that they are correctly attributing their experience to *déjà vu*.³ It will also include definitions of *déjà vu* that have been proposed throughout history, and descriptions of the *déjà vu* experience in popular culture. This sample is shown below and will be referred to throughout this paper.

³ Requiring that these accounts be accounts of *déjà vu* leads to a similar problem: how to verify that this experience is *déjà vu* without a phenomenal theory of *déjà vu*? By relying only upon subjects' emotional attribution, I will have a sample of experiences where every experience is *déjà vu*-like in some manner. Then, I will use my theory to show what makes some of them *déjà vu* and some similar but better deserving of a different label. This also ensures that my theory will not be self-confirmed by the choosing of my sample, which would lead to more circularity.

“ “The curious feeling of familiarity that we sometimes experience in the midst of surroundings really quite new...” Baldwin (1889, p. 264)” (Brown 13)

“ “...a definite ‘feeling that all this has happened before,’ sometimes connected with a ‘feeling that we know exactly what is coming’ – a ‘feeling’ that persists for a few seconds and carries positive conviction, in spite of the fact and the knowledge that the experience is novel.” Titchener (1928, p. 187)” (Brown 15)

“ “...the individual, although doing something for the first time, feels that he has done the act before.” Warren & Carmichael (1930, p. 221)” (Brown 15)

“ “...a weird feeling that one has been through all this before, as if time had slipped a cog and were now repeating itself.” Woodworth (1940, p. 357)” (Brown 15)

“ “I have found myself in a new position with a distinct sense that I had been there or experienced it before.” Riley (1988, p. 449)” (Brown 15)

“Any subjectively inappropriate impression of familiarity of a present experience with an undefined past” (Neppe)

“ “The sensation that an event had been experienced, or a place had been visited, before.” Gaynard (1992)” (Brown 13)

“Last Wednesday, I was at home with both my parents around. I was revising a term paper, around 1 A.M. I felt a sensation that told me that I had revised that paper before. I felt strange because the minute I highlighted the word ‘wander,’ I got a sense that it had happened already” (Brown 1).

“We visited a discothèque in Downtown Disney, and were dancing with two girls from Brazil. Neither one of us had been there before, or had met the girls before. However, when a song played I felt as if I had lived the moment before. I couldn’t remember exactly when or where, but I knew it wasn’t my first time there and with them”(Brown 1).

“Last summer, I was in a program at Galveston. I was sitting with my roommate and we were talking about our problems. After a few minutes of talking, I experienced déjà vu. I don’t know if I had dreamed that experience or what, but it felt as if it was recurring” (Brown 1).

[When asked, “Please describe a recent déjà vu experience”]: “Last Thursday we were driving to Corpus and we were driving by this park, and right as we started to see it, I noticed the colors, and I thought it looked familiar. Then I realized that it was something that I’d seen in a dream like a couple weeks ago and I distinctly remember in my dream going down and running between the park and the ocean on the side of this kind of hill, this grassy hill, and as I looked at the park, I noticed that there was that exact same grassy hill with the stand of trees that I remember from my dream as well” (Jared Beshai, Interview on 12/8/16)

[When asked, “Please describe a recent déjà vu experience”]: “A couple of weeks ago I was at a store, and I was rifling through a stand of clothing. I saw a blue leotard followed by a red dress, and I continued to look through the rest of the clothes. About a minute later, I saw in the same sequence, a blue leotard followed by a red dress, and I had the sensation of feeling like I’d seen that before and that something was familiar, and so I searched for what that might be and I remembered that approximately a minute ago I had seen the exact same configuration of blue followed by red, in the exact same pieces of clothing, earlier on in the same stand of clothes” (Stephanie Brener, Interview on 12/12/16)

[When asked, “Please describe a recent déjà vu experience”]: “It’s a common experience as a musician that I will go to a classical music concert, regardless of whether I’m familiar with the composer or I’ve played his work before, and I’ll be sitting there listening and I will suddenly have a very strong feeling that I’ve seen the music before, and the feeling that I’ve learned that passage before or played it before. So, it’s a combination of a sort of fake muscle memory, and the almost photographic recall of a page of music that I may never have seen before” (Elizabeth Godfrey, Interview on 12/12/16)

“For a few precarious seconds, the chaplain tingled with a weird, occult sensation of having experienced the identical situation before in some prior time or existence. He endeavored to trap and nourish the impression in order to predict, and perhaps even control, what incident would occur next, but the afflatus melted away unproductively, as he has known beforehand it would. *Déjà vu.*” (Heller 204)

“An event will occur and I will have the sensation of knowing that the event was going to happen at that time, and I will recognize every detail of it as it happens. It is as though it had already happened. It is as though I have lived through that period of time before” (O’Connor 2008)

This sample of accounts and examples of déjà vu, and comparison to non-déjà vu experiences, will allow for study of the déjà vu experience. My project is to defend a

theory of déjà vu that explains why the feeling of déjà vu feels the way that it does. This theory, by clarifying our understanding of the experience, should effectively provide clear rationale for why an account is or is not déjà vu and quickly identify the kinds of questions people could ask themselves to introspect for themselves whether the experience they are having or had is a déjà vu experience.

Is déjà vu an experience? The skeptical arguments

Before arguing for the phenomenal content of déjà vu, I will consider the skeptical concern: Why should we believe the déjà vu experience is real, let alone study it? This is a valid concern. The history of déjà vu, rife with references to precognition and other parapsychology, is typically seen as a red flag for academic cognitive science research. Moreover, empirical déjà vu research is difficult. There is no behavioral response uniquely associated with déjà vu, psychological evaluations of déjà vu have often been criticized for demand characteristics which seem to overestimate déjà vu prevalence, and a third of surveyed subjects claim to have never experienced déjà vu (O'Connor 2010; Brown 2004, 33).⁴ Therefore, I will begin by arguing against the skeptical claim that déjà vu has no phenomenal content.

The strong skeptical position

The strong skeptical position is that déjà vu has no phenomenal content at all.

This is to say there is nothing it is like to experience déjà vu. For those who have had a

⁴ According to a meta-analysis of several survey studies by Alan Brown, only two-thirds of the population experience déjà vu (Brown 2004, 33). This exact proportion is unlikely accurate, as without a clear definition of the experience they are being asked about, it seems likely that several subjects could be reporting non-déjà vu experiences or withholding déjà vu experiences. However, it gives some foundation to the skeptical position.

déjà vu experience, this position can be denied on the basis of reflection alone.

However, there are two significant reasons to believe that the déjà vu experience has phenomenal content outside of internal reflection. First, when considering accounts of déjà vu, they are universally described as a sensation or experience (see examples of accounts of déjà vu on page 11). Some experience déjà vu while performing an action while others experience déjà vu when they see or hear a specific stimulus, but all déjà vu accounts describe the phenomena experientially. If the authors of these accounts are not describing an experience though their accounts are universally experiential, what could the authors, spread across hundreds of years of history, be describing, and why do they continually misreport it as an experience?

The second reason to believe déjà vu is an experience is that we can see subjects responding to a unique experience and attributing it to déjà vu. In such cases, as there is no plausible external stimulus that better explains the response, this constitutes evidence that the subject is having an abnormal experience. In 2001, a case study was reported on an otherwise normal and healthy 39-year old physician who reported intense and recurrent déjà vu during a 10-day course of amantadine and phenylpropanolamine (Taiminen 2001). The physician identified having the experiences within 24 hours of starting the course of drugs and reported that they stopped soon after he stopped taking the drugs. The subject's ability to report the start and end of a déjà vu episode shows that they could clearly identify something. As there were no reported external factors that were particularly distinctive, this most likely refers to the presence of a unique experience.

Similar evidence is present in other patient accounts. One patient reported déjà vu while undergoing deep brain stimulation. While testing the electrodes, scientists recognized that stimulating the brain in the left internal globus pallidum above 2.7V caused déjà vu-like episodes in the patient (Kovacs 2009). Moreover, “turning on or turning off the stimulation had an immediate effect on this experience” (Kovacs 2009). In this case as well, it is difficult to understand what the patient could have been reporting if not for some distinct experience. Finally, O’Connor and Moulin reported a patient who described déjà vu as a “sensation” and responded to it by actively moving his visual field in an attempt to end the sensation (O’Connor 2008). These behaviors are all instances where patients indicated clearly their ability to recognize the presence of déjà vu by recognizing the presence or lack of an experience. Therefore, there is significant empirical reason to believe that accounts of déjà vu are accounts of experiences with phenomenal content.

Déjà vu skepticism from phenomenal thought

While this demonstrates that accounts of déjà vu refer to an experience, the déjà vu skeptic’s could also argue that déjà vu is no more than a certain belief or understanding of the circumstances. A déjà vu skeptic might suggest that when people say, “I felt like I’d been to this exact place before,” to describe their déjà vu experience, they are speaking in the same manner as someone who says “I felt like my friend was sad.” We often say we “feel as though x” to mean we believe x, and it is plausible that this sort of belief can constitute a recognizable experience. Therefore, the phenomenal

thought position would involve arguing that one could explain the way déjà vu feels as understanding what is occurring in a particular way.

This argument actually appeals to some intuitions of déjà vu experiences. For instance, when someone says, “I felt like this had happened before, but I know it hadn’t,” it does seem plausible that they are describing experiencing an understanding of the circumstances one way while also holding a belief that this experienced belief is false. However, this explanation by the déjà vu skeptic still leaves aspects of déjà vu unexplained. For instance, in one clinical case study of déjà vu, the patient “went through a period of looking away from what [he] was recognizing, hoping that this would get rid of the déjà vu” (O’Connor 2008). If déjà vu were a particular belief, it would be difficult to explain why someone would move their visual field in order to stop believing something. Even so, as déjà vu is often expressed as the feeling of a propositional claim(i.e. the feeling that something has happened before, or the feeling that time has repeated, etc.), the phenomenal thought position requires more rigorous consideration.

The skeptical phenomenal thought position would argue that the feeling of déjà vu is the feeling of thinking about the events transpiring in a certain way. The specific content of that belief could be interpreted in various ways, but the skeptic would be committed to the idea that this particular understanding explains the particular way that déjà vu feels. I will use “Phenomenal Thought” by Charles Siewert for guidelines on the characteristics of phenomenal thought and refer rebuttals to any supposed

mischaracterization of this cognitive phenomenology to the discussion he provides there (Siewert 2011).

It is worth noting that phenomenal thought may not be the only form of cognitive phenomenology. For the purposes of my argument, I will assume that if a representation is transducing a signal, as when visual experience represents optical information or auditory experience represents vibration, the content is a sensory content. If a representation is not transduced, as when one recalls an understanding from within their own mind, the content is a cognitive content. This implies that outside of phenomenal thought, memory, fear, and cognitive forms of pleasure may be other forms of cognitive phenomenology. The specific objection that I am rejecting here, however, is that the *déjà vu* experience is an instance of a specific thought.

The phenomenal thought position must assume as a basic premise that conceptual thought has a unique cognitive phenomenology that is both non-reducible to sensory phenomenology and variable with its content. I will show that any thought that coincides with the *déjà vu* experience is neither necessary nor sufficient for explaining *déjà vu* by showing both that *déjà vu* requires no particular semantic thought and that a subject can plausibly vary in what he is thinking without varying in *déjà vu* phenomenology.

If some mixture of phenomenology could replicate the feeling of *déjà vu* without involving any semantic understanding, *déjà vu* is not appropriately characterized by appealing to phenomenal thought. So, could one experience a phenomenal duplicate of

the déjà vu experience that has no semantic understanding? Consider Siewert 2011's example of what this might mean for the experience of reading a passage:

"Is there then perhaps some distinctive way of experientially grouping the words, with a certain rhythm, or saying them to yourself with a certain intonation, which is notable in the actual experience of reading comprehendingly, but could also be found in reading without understanding" (Siewert 2011).

In this case, Siewert concludes that no, there is no such conjunction of sensory phenomenology which are identical to the experience of comprehension. For déjà vu, however, I am inclined to think otherwise. Describing déjà vu as this feeling that there was a distinct feature or grouping of features that seemed almost perfectly orchestrated from the past does seem to explain at least a significant part of what déjà vu does feel like, without any of those features including a belief of any kind. If at least a significant part of the way déjà vu feels is reducible to a form of sensory phenomenology, then at least a significant part of déjà vu phenomenology involves a feeling that cannot be explained by phenomenal thought.

Another reason to believe that thought is unnecessary to déjà vu is to consider the several clinical cases of déjà vu. In none of the clinical cases did the subjects report the experience causing particular thoughts. Therefore, it is not necessary to déjà vu that the subject have particular thoughts.

Another way to test whether phenomenal thought is necessary to the déjà vu experience is by considering variability of thought. Could two experiences of déjà vu be understood differently? Consider, for instance, a man who has two déjà vu experiences. After the first one, he might say that it felt strongly as if he had had the experience

before. Later, he is told by his religious leader that the déjà vu experience is one of a past life⁵. He then has another déjà vu experience, and understands it differently. Is the man committed to saying he had two different feelings? To put it bluntly, could one, after a déjà vu experience say, “I felt déjà vu and thought it meant this. But then, I learned that it meant something else and had another déjà vu experience” without committing to the second experience feeling any different from the first?

In such a case, the subject could have two possible experiences. In the first, the subject has two déjà vu experiences with dramatically different interpretations of the experience in each instance. As a result, the subject’s overall experience varies significantly, perhaps they were confused the first time and awe-struck the second, but there is a core experience that remains constant. The second possibility is that each unique interpretation constitutes a different déjà vu experience. As the latter case is unable to explain the way in which déjà vu experiences all feel similar (there are similarities in the content of the descriptions in déjà vu accounts, so the similarity that all phenomenal thought feels similar in a sense is insufficient), there is reason to believe that déjà vu has a core phenomenology separable from its interpretation. Therefore, the role of phenomenal thought in déjà vu is in the way it feels to interpret déjà vu, not the way that déjà vu feels itself.

Key conclusions from denying phenomenal thought

The denial of phenomenal thought as being involved essentially in the déjà vu experience leads to the key conclusion that the experience of déjà vu is independent of

⁵ This appeal to paranormal beliefs is actually a very realistic case as many people do believe that déjà vu is evidence of the paranormal (Brown 2004, 114)

what the subjects believe about what they are experiencing.⁶ This is demonstrated as a subject can have a number of different beliefs while retaining a constant feeling of déjà vu. However, the strong correlation between déjà vu and a belief in one's own evaluation being false is can be explained by my theory.⁷ Consider that on my theory, déjà vu represents that 1) you recognize something, and 2) you should be able to remember it soon, although you do not. Given any objective evidence that such recognition should be impossible and the inability to recollect any memory at all, many people would be extremely aware that they believe their experiences are false. Therefore, although this belief is unnecessary, the belief that déjà vu is a false experience would be expected to be highly correlated with déjà vu.

The conclusion that thought is independent from the experience of déjà vu is important because it shows that the strange inappropriateness of the déjà vu experience cannot be explained away by clashing thoughts. This intuitively fits as other clashes of evaluation do not contain feelings similar to déjà vu. For instance, looking at the Mueller-Lyer illusion and having the representation of your vision clash with your logical evaluation does not create an analogous inappropriate experience. However, it

⁶ Even if déjà vu doesn't have a specific phenomenal thought associated, a skeptic might argue that it is the relation of two beliefs that makes déjà vu feel so unique. For instance, the relation of the feelings that you believe this has happened before and the feeling that you believe this has not happened before may be a unique feeling that could account for déjà vu. However, this argument can be dismissed in a similar manner. If it is clear that déjà vu does not entail any particular beliefs, then it follows that déjà vu does not entail any particular relation between beliefs. Therefore, it cannot explain the phenomenology of déjà vu.

⁷ Explaining the common clash of evaluations that seems to be present in the déjà vu experience is frequently a goal of theories of déjà vu. O'Connor and Moulin claim that this clash is a key difference between déjà vu and failed recognition (O'Connor 2008). While my theory of déjà vu will explain how the phenomenology of déjà vu could create a clash of evaluations, I have shown here that no particular belief is necessary to the déjà vu experience.

leaves the strange inappropriate feeling that is part of the déjà vu experience to be explained by my theory.

A representational theory of recognition memory

Before arguing for my theory, I must give reason to believe that the posited representational contents are contents of experience at all. My theory calls for two representational contents: recognition-familiarity and imminent recall. Therefore, the first step is to develop a more sophisticated representational theory of recognition memory.

Familiarity as an independent content of experience

The term 'familiarity' is ambiguous with respect to its representational implications. For instance, if I visit a new building, there is a sense in which everything in it will likely be familiar. I am familiar with chairs and tables and doors. However, there is also a sense in which it will all be unfamiliar as I have never before been in that particular building before, so it all feels quite new.

In chapter four of *The Contents of Visual Experience*, Susanna Siegel argues for what she calls kind properties, which represent the content of being a certain kind of object, action, mental state, etc. as independent contents of visual experience (Siegel 99). These properties explain the way that it feels to see something and match it to a recognized category or kind. To specify the familiarity this refers to, I will refer to this representational content as kind-familiarity (k-familiarity). I will refer to the content representing a visual stimulus as a stimulus that the subject has already seen as

recognition familiarity (r-familiarity). By modifying her argument slightly, I will use Siegel's argument structure to show that recognition familiarity is also an independent property of visual experience. Moreover, I will argue that r-familiarity is independent and separable from k-familiarity. Then, I will use several examples to show that r-familiarity is not limited to the visual medium, and is a content of multiple sensory and cognitive modalities.

The Contrast Case

Consider two experiences which would be identical except for one difference. In experience 1, the subject has the visual experience of a pine tree before learning to recognize *this particular* pine tree.⁸ In experience 2, the subject has the visual experience of the same pine tree after learning to recognize this particular pine tree. Each experience is part of the subject's overall experience. The argument follows from three core premises:

- 1) The overall experience of the subject having experience 1 is different from the overall experience of the subject having experience 2.
- 2) If premise 1 is true, then there is a phenomenological difference between the visual experience of the subjects.

⁸ Siegel's case is set up nearly identically, but rather than using "this particular pine tree," she sets up the case as a subject who is learning to recognize pine trees as a kind to argue that the kind property of being a pine tree can be represented in visual experience (Siegel 2010, 100)

- 3) If there is a phenomenological difference between the visual experiences, it is a difference with respect to the presence of recognition familiarity (r-familiarity) as a content of the visual experiences.⁹

If this argument is successfully taken to its conclusion, r-familiarity will be shown to be an independent content of visual experience. The first premise is presented as a minimal intuition, appealing to the sense that as you learn to recognize something it becomes differentiated in your experience. Experiences such as finding a close friend in a crowded venue, where your ability to recognize your friend seems to make them more salient than others in the crowd, are examples which appeal to this sort of intuition. After accepting this intuition, one need only defend the remaining two premises to defend r-familiarity as an independent content of consciousness.

Rebuttal from Phenomenal Thought

To deny premise 2, one could deny that the phenomenal contrast in the subject's overall experience is a contrast between the subjects' visual experiences. This rebuttal would be committed to explaining the phenomenal contrast in the subject's overall experience through the presence of non-visual contents of experience. Given that the sensory features of experiences 1 and 2 have been held constant, a rebuttal of this form would most likely explain the contrast as a difference in a cognitive phenomenology.

The phenomenal contrast is a difference in feeling between when a subject can and cannot recognize a particular pine tree. I will first address whether this difference

⁹ In Siegel's kind property argument structure, she includes a premise between premise 2 and 3: "If there is a phenomenological difference between [the visual experiences, then they] differ in content" (Siegel 2010, 101). This is intended to acknowledge and respond to the raw feels argument. However, as I assume a representationalist stance at the outset, I will not treat this premise as necessary.

could be explained as a change in phenomenal thought before making a more general counterargument to other cognitive phenomenology.

For the phenomenal thought rebuttal, the phenomenal contrast would be explained as the formation of a judgment, belief, or intuition that 'that is a pine tree' or that 'it is recognizable.' The difference in contents that explains the phenomenal contrast would be the addition of some combination of these propositional attitudes or others like them.

An argument against this can be adapted from Siegel's arguments on kind properties. Siegel considers what it might feel like if you were persuaded, while looking at this particular tree that you recognize, that it is actually a hologram, and you ceased to believe that you are looking at your tree at all (Siegel 105). Intuitively, while your experience might be different, your experience would not be like it was before you learned to recognize this particular tree. Your experience would still represent to you that you recognize the tree, even if this opposes your beliefs. While Siegel's hologram case may seem unrealistic, it is actually borne out in psychiatric patients with the Capgras delusion. When placed in front of their family members, Capgras patients can recognize their particular family members. However, Capgras patients will characteristically hold the delusional belief that those family members are imposters, incapable of believing their experience of recognition. Siegel's pine tree hologram case is directly analogous to the experience of Capgras patients. In both cases, the subject has an experience of recognition unperturbed by a belief that one has not encountered this before. The argument in both cases appeals to the claim, verifiable in one's own

experience, that if you recognize something and later find reasons to believe that you have never seen it before, it will not suddenly revert in appearance. If changing the belief to its state prior to recognition does not eliminate the phenomenal contrast, then belief cannot explain the phenomenal contrast.

This is also true where the propositional attitude is not truth-committed. Consider the experience of delayed recognition. A common form of this directly invokes cognitive phenomenology, in the form of memory, as you go from not recognizing the person to having a cognitive state (“I remember you!”). However, it seems common for one to have a three-step experience of delayed recognition. Consider the experience of turning your head and suddenly seeing something you recognize that makes you look back. Such experiences start with a visual experience that did not include recognition. Then, your visual experience changed, causing you to turn back before you identified what you were looking at. Finally, you identify what you recognized and perhaps begin to have occurrent thoughts and beliefs about it. The possibility of this kind of experience shows that the phenomenology of recognition of particulars, as in this contrast case, can occur independently of an occurrent thought or belief, so no such propositional attitude can explain the phenomenal contrast.

Rebuttal from other Cognitive Phenomenology

The phenomenal contrast is with respect to a difference in ability to recognize a pine tree as the pine tree I’ve already seen. Therefore, cognitive phenomenology that could explain this contrast must be capable of representing in some manner the contents of

memory. For this reason, experiences like pleasure or fear cannot explain this contrast.¹⁰

The only remaining cognitive phenomenology that could explain the phenomenal contrast is the phenomenology of memory or meta-memory (as in imminent recollection). To show that the contrast cannot be explained by memory or meta-memory phenomenology, I will need to establish the characteristics that make them phenomenally distinct from r-familiarity in later sections. Therefore, I will proceed assuming that r-familiarity does not reduce to the phenomenology of memory or meta-memory and return to this once I better characterize their respective representational contents. As a result, we must accept the premise that the phenomenal contrast is with respect to visual experience.

Rebuttal from thin contents of visual experience

To deny the third premise, that the phenomenal contrast must be explained as a difference in the presence of r-familiarity as a content of visual experience, one must explain the phenomenal contrast by appealing to other contents of visual experience. In “The Contents of Visual Experience,” Siegel divides these into rich and thin contents (Siegel 6). Thin contents of vision include shape, color, size, etc. Rich contents of vision include kind properties such as the property of being a pine tree as well as other properties such as causal relations.

First, consider whether the contrast can be explained with reference to thin contents of visual experience. Siegel calls this proposal the shape-gestalt position (Siegel

¹⁰ Note that here I am taking the experience of having a memory and the experience of being fearful, even if of the memory itself, to be separable representations in consciousness.

2010, 111). This position would explain the contrast by holding that the experiences “differ with respect to the pine-tree-shape-gestalt properties they represent” and that neither represents recognition-familiarity as an independent content.

The shape-gestalt position would contend that any shape-gestalt could gain the property of being recognizable as something one has been previously exposed too. For Siegel, who argues for the property of being like a pine tree as a content of visual experience, shape-gestalt is an argument that the property of being pine-tree like is reducible to certain shapes and colors. However, shape-gestalt, like the property of being pine-tree like, does not match the current experience with a particular experience in one’s memory. The shape-gestalt position only threatens r-familiarity insofar as r-familiarity is taken as reducible to k-familiarity.¹¹ Therefore, I will show that r-familiarity is not reducible to k-familiarity and by extension provide a rebuttal to the shape-gestalt position.

Familiarity without recognition: irreducibility to kind properties

To demonstrate the difference between k-familiarity and r-familiarity, imagine two alternative contrast experiences. The original contrast case was the phenomenal contrast before and after learning to recognize a particular pine tree, pine tree₁.

However, consider if afterwards your friend leads you blind-folded to a different pine tree. Your experience of the pine tree could match one of these three experiences:

¹¹ Siegel does defend the irreducibility of k-properties to shape-gestalt thin contents (Siegel 110-113). However, shape-gestalt is only threatening because it appeals to the intuition that when we recognize a lamp as a lamp, we are recognizing a similar organization of shapes. If recognition of *this* lamp as *the lamp in my memory*, is a unique content from recognition of this lamp as the same kind of thing as lamps in my memory, shape-gestalt could not explain the phenomenal contrast of recognition any better than pleasure or fear, as it has no particular relation to memory.

- 1) You feel like the pine tree is familiar because you feel like you are seeing pine-tree₁ again (as in the original contrast case experience).
- 2) You feel like the pine tree is familiar because you feel like you are seeing pine-tree_n (a thing of the kind: pine tree) again.
- 3) You could feel like the pine tree is familiar because you feel like you are seeing tree_n (a thing of the kind: tree), where your visual experience is like your visual experience of pine-tree₁ because both look like trees.

The difference between experiences two and three is a difference with respect to the representation of what you are seeing as kinds of varying specificity with respect to visual features (tree_n and pine-tree_n). In this sense, nearly everything can be k-familiar in some loose sense by being represented as part of a broader category of what is being seen, though Siegel would likely argue that certain things can be represented as having more narrow k-familiarity than others (for instance, she must be committed to arguing that the property of being like a pine-tree is differentiable in visual experience from the property of being like a tree).

While in experiences 1 and 2, visual experience represents that you are looking at something that looks like pine-tree_n, your visual experience in experience 1 goes further to represent the pine-tree as being pine-tree₁, the same pine tree you originally saw. This differs from the other experience comparison because where both experiences 2 and 3 referred to features of the visual experience with specificity varying by kind, experience 1 refers to features of the visual experience specified by a particular memory.

Begin with the intuition that experiences 1 and 2 have a phenomenal contrast. In this case, the experiences cannot be different with respect to the unification of visual properties alone. Instead, the experiences differ in what the visual experience is represented as matching. Experience 1 represents what you are seeing as matching a concept,¹² pine-tree_n, but experience 2 represents the pine tree as matching a specific stimulus from the past, pine-tree₁. Consider this difference in terms of a set of pine trees one has previously recognized:

Pine Tree Memory Set: [Pine Tree₁, Pine Tree₂, Pine Tree₃, Pine Tree₄]

The experience in experience 2 represents that the pine tree you are currently seeing should be added to this set. The experience in experience 1 represents that the pine tree you are currently seeing is already a member of some memory set. The relevant difference here is the representation of being present in memory. While k-familiarity only requires that you know what pine-trees look like, r-familiarity requires that you knew what the pine tree you are looking at looked like in your memory. It is an experience representing the repetition of a member of a set within memory rather than an experience representing an instance of a category.

The intuition that there is a phenomenal contrast between experiences 1 and 2 is evidence for this phenomenal distinction. To support this intuition, consider that the ability to have r-familiarity without k-familiarity or k-familiarity without r-familiarity is quite common. For instance, you can learn to recognize your kind of car without

¹² The specificity of a kind is presumably influenced by memory. However, interpretations of how memory is used to determine kind vary. There are many theoretical frameworks, ranging from feature recognition to geon theories, that seek psychological explanations for how kinds are determined. However, as long as the nature of a phenomenological kind is not constrained by only one memory, one instance, it is relevantly different from recognition familiarity.

recognizing each of a set of them as your car. Similarly, it seems that you can learn to recognize something as having been seen before without learning to recognize that kind of thing¹³. For instance, I could recognize a particular Picasso painting as *the Picasso painting I saw that one time* without recognizing Picasso paintings as a visual kind among visual experiences of paintings.¹⁴

Consider the recognition of faces. One might separate face recognition into three distinct capabilities:

- 1) The identification that what I am looking at is a face
- 2) The identification of that face (that is Bob's face!)
- 3) The recognition of that face (I've seen that face before!)

The first two types of recognition are with respect to a broader and more specific visual kind (faces generally and Bob's face specifically). However, the third is a type that matches a visual kind to a particular visual memory. The challenge that recognition familiarity reduces to kind familiarity would argue that in every case where recognition familiarity is present, kind familiarity is present, so recognition familiarity could simply be the representation of a narrower kind (i.e. Bob's face, instead of a face generally). However, consider ordinary cases of recognition without identification. If

¹³ In the psychology literature, this controversy is expressed in competing theories of familiarity processes (Arndt 2008). The existing representations theory hypothesizes that familiarity results from the activation of existing representations. In contrast, matching models suggest that familiarity involves matching to episodic details. Experiments have showed recognition without identification for pseudo-words and non-word stimuli without existing representation which is inconsistent with the existing representations view (Arndt 2008). This supports a psychological dissociation between recognition-familiarity, which matches episodic details, and identification, which activates semantic representations, that parallels the phenomenological dissociation I am making.

¹⁴ Consider that for most non-art historians, this is the case with nearly every experience of art. Intuitively most people can recognize both paintings as a kind of thing representable in visual experience and particular paintings they have seen before without being able to recognize the style of particular artists as narrower kinds of visual experiences of paintings.

you saw Bob and didn't correctly identify him, you might say, "I am seeing a face, I am not sure whose face, but feel as though I have seen this face before." The possibility of such cases show that recognition can come apart from identification.¹⁵ Similarly, it is common to have the experience of correctly identifying someone but feeling like their face is unfamiliar in a recognition sense. In such a case, your experience represents that what you are seeing is a face and whose face it is without representing that you have seen it before. This happens often when you see a young family member who has grown in the past year. You can visually identify who they are, but there is a sense that you also have not seen them before as they are now. These ordinary experiences demonstrate that r-familiarity is possible without k-familiarity and vice versa, so r-familiarity is possible as an independent content of experience.

It is worth noting that the distinction between k-familiarity and r-familiarity creates a distinction with respect to the veridicality conditions of an experience. As a general rule, it will be harder to find that an experience of k-familiarity is false than that an experience of r-familiarity is false because where r-familiarity makes a claim about the repetition of a specific memory, k-familiarity makes a claim that can be true of a much larger set, a conceptual kind, that includes but is not limited to memories. Moreover, when a representation of k-familiarity is wrong, it would be a visual error, where a non-veridical representation of r-familiarity would be a memory error.

Familiarity across mediums of experience

¹⁵ The recognition without identification paradigm constitutes evidence that this can be replicated in a laboratory setting (Cleary 2000, Arndt 2008)

While the example shows that r-familiarity is a content of visual experience, this sort of case should hold for multiple mediums of experience. If the contrasting experiences had been of learning to recognize the sound of one's own name, for instance, the argument against cognitive phenomenology would continue to hold, and the shape-gestalt argument would instead be a pitch-tone-gestalt argument that could be applied in much the same way. An analogous argument could also be made that recognizing your name as the same kind of grouping of phonemes as any name is different from recognizing your name as the sounds that you remember your peers calling you. Therefore, one can extend r-familiarity and k-familiarity as differentiable contents of auditory experience as well.^{16 17} In fact, it seems that familiarity could be established as a content of at least every sensory experience through an analogous contrast case¹⁸.

While an analogous argument could not be used to show that r-familiarity could be an independent cognitive phenomenology, like pleasure or thought, it seems that this line of argument could show r-familiarity and k-familiarity to be unique contents of any cognitive phenomenology as well¹⁹. One could recognize the semantic content of a

¹⁶ This is relevant to my theory of déjà vu because it expands my theory of déjà vu to being able to explain non-visual déjà vu experiences as well. O'Connor 2006 presents a case study of a déjà vu experience in a blind male, supporting the possibility that déjà vu could be experienced through hearing as well as sight.

¹⁷ Kostic 2009 and Cleary 2007 present studies that show recognition without identification in the auditory medium. Kostic's study on song recognition without identification is for ordinary stimuli while Cleary's study uses words shrouded by white noise so as to make them unintelligible. In both cases, however, the result that the psychological distinction between recognition and identification is replicated.

¹⁸ Cleary 2010 expands the recognition without identification literature to odor recognition, so at the very least there is experimental evidence for the distinction between r-familiarity and k-familiarity in three sensory modalities (sight, hearing, and smell).

¹⁹ Here I am making a distinction between sensory and cognitive experiences (vision, hearing, thought, pleasure) and their contents (brightness, volume, semantic content, pleasure intensity, and r-familiarity for each).

thought as the same kind of semantic content or as the semantic content that one had thought previously. Therefore, r-familiarity could be a content of phenomenal thought. Similarly, one could imagine r-familiarity being a content of a particular cognitive pleasure. Seeing that r-familiarity can be present in multiple mediums is important as when I argue that r-familiarity is necessary to déjà vu, this will explain déjà vu as being capable in principle of representation in any medium that can represent r-familiarity.

Recollection as a unique experience

Next, I will establish a theory of the phenomenology of recollection. To do so, I will establish the event of remembering as content of experience independent from familiarity and recognition. It is important to distinguish the phenomenology of recollection from familiarity for several reasons. First, the phenomenology of memory, involved in recollection, is necessary to completing the argument for r-familiarity as a content of sensory experience. Second, as recollection and familiarity are so closely related recognition processes, an account of the difference in representational content is important to differentiating between accounts of one or the other. Finally, including a theory of recollection will allow me to offer a complete theory of the phenomenology of recognition memory.

Remembering as an independent content of experience

To show that remembering is an independent content of experience, I will contrast two experiences.²⁰ For both subjects, the experiences have the same sensory

²⁰ To set this up, I will take for granted that memory is possible, but not that it has a unique cognitive phenomenology. This will allow for the minimal intuition that the contrasting experience is possible

experiences and include a visual experience representing both k-familiarity and r-familiarity. The visual experience recognized is of a television depicting the end of an old football game, where the quarterback of a football team is throwing a pass. However, the second subject also has the experience of remembering in his mind's eye actually watching that play at his parents' house when it was first on live television.

The same basic premises can be used as when establishing familiarity with recognition as an independent content of experience:

- 1) The overall experience of the subject having experience 1 is different from the overall experience of the subject having experience 2
- 2) If premise 1 is true, then there is a phenomenological difference between the cognitive experience of the subjects
- 3) If there is a phenomenological difference between the cognitive experiences, it is a difference with respect to the presence of the representation of a memory.

The first premise must be taken as a minimal intuition. However, I will show that alternative explanations to the second and third premises fail to deny the conclusion.

Rebuttal from Non-Cognitive Experience

In order to deny the second premise, one must argue that the phenomenal difference between the experiences can be explained by a non-cognitive, or sensory, experience. However, consider the difference in experience being posited. In one, there is a feeling that the present is in the past (recognizing it), and in the other, there is a

without presuming there is something unique from other contents of consciousness that it is like to remember something.

feeling that one is experiencing the past in the present (remembering it). The difference can be easily elucidated in thought experiments as well as psychological research.²¹ For instance, while both of their experiences of the present are the same, and both subjects are matching the present to the past, the second subject is also experiencing the past. Therefore, details such as the way his parents' house appeared when they first saw this football game are plausibly available to the second subject, through memory, while unavailable to the first subject as this kind of information is outside of the capabilities of what sensory experience in the present can represent. Therefore, recourse to non-cognitive experiences fail to deny the second premise.

Rebuttal from Phenomenal Thought

To deny the third premise, one must argue that the difference in experience can be explained by cognitive phenomenology other than memory. First, I will consider the rebuttal from phenomenal thought. This is to say that the difference between seeing something as familiar and seeing something and remembering it is a difference in belief. For instance, the ability to recall that he was at his parents' house when watching the football game could just as easily be explained as a phenomenally conscious belief that he was at his parents' house as a memory.

This explanation does not explain the experience in the contrast case because it does not explain the sense that what it feels like to remember something is to

²¹ Several dual process models for recognition have been suggested in the psychology literature supporting the dissociation of recollection and familiarity as recognition processes (Yonelinas 2002). Moreover, evidence from ERP, fMRI, and brain lesion studies suggest that the brain regions involved in familiarity and recollection are separable, with hippocampal damage disrupting recall but leaving familiarity intact and areas in the parahippocampal gyrus playing a critical role in familiarity (Rugg 2003, Yonelinas 2002, Yonelinas 2005).

experience the sensory contents of experience of a memory of another time as phenomenally conscious while also experiencing the sensory contents of the present. While the second subject says he remembers watching the game while at his parents' house, he could either mean that he has a belief that he watched the game there, or he could imply that while he is not currently there, there is a sense in which he is currently able to experience what it was like to be in his parents' house. If we take the second subjects' experience to be the latter, phenomenal thought is unable to explain the phenomenal contrast.

Other cognitive phenomenology also cannot explain the contrast. While the feeling of imminent recall will be further characterized later, it cannot represent something like the visual experience of something not currently being seen, so it cannot explain the contrast. Moreover, any cognitive phenomenology that does not relate to the past in some manner, like pleasure or fear, cannot explain the phenomenology of memory. Therefore, as the two premises cannot be successfully denied, remembering must be taken as a unique content of experience.

Recollection as distinct from Remembering

Most cases of remembering are not cases of recognition. As I use the term, recollection is the experience of r-familiarity while also remembering the content that the r-familiarity representation refers too. These concurrent contents must be unified or one is simply having the experience of recognition familiarity while remembering something else. Therefore, rather than being an independent content of consciousness,

the experience of recollection is a specific mixture of other contents of consciousness, remembering and r-familiarity.²²

It should be noted that by arguing that r-familiarity is possible without memory and memory is possible without r-familiarity, I have also completed the first of the remaining two rebuttals to ground r-familiarity as a content of visual experience. The last will be completed after characterizing the feeling of imminent recall.

A representational theory of the phenomenology of recognition memory

Representational theory of recognition-familiarity²³: For an experience to feel r-familiar is for feature(s) of the experience to be represented as having been recognized as a repetition of feature(s) present in one's memory.

Representational theory of recollection: For an experience to feel like a recollection is for feature(s) of their experience to be represented as r-familiar while the subject is also representing the contents of the episodic memory to which the r-familiarity refers.

Representational theory of kind-familiarity: For an experience to feel k-familiar is for feature(s) of the experience to be represented as having the property of being a member of a representable category.

The representational theories of r-familiarity, k-familiarity, and recollection, above allow one to explain in nuanced terms the different experiences one can have of

²² It is worth noting that the experience of recollection is also differentiable from what it means to say you had a 'flashback.' In the case of a flashback, a memory is made conscious spontaneously, without the intention to remember, while the experience of recollection itself does not entail any particular conditions of agency. However, as a flashback necessitates the representation of memory, when in later sections I argue that déjà vu necessarily does not involve a memory, the same argument can be used to show that déjà vu necessarily does not involve a flashback.

²³ This theory remains contingent upon the successful rebuttal of familiarity as reducible to the phenomenology of meta-memory.

recognition. With a complete theory of the phenomenology of recognition memory, we can see why the involvement of these contents in déjà vu can be so difficult to parse. When someone describes their present experience as “just like an experience they’ve had,” they are using terms that are ambiguous with respect to whether they are experiencing k-familiarity, r-familiarity, a memory, or some mixture of these representational contents. Therefore, when considering whether r-familiarity is a content necessary to déjà vu, it will be important to consider whether the necessary content could be one of these similarly described contents.

Imminent Recollection as a content of experience

In order to complete my theory of déjà vu, I will defend imminent recollection as an independent content of experience. This will expand our understanding of the phenomenology of memory as well as clarify our understanding of the experience of delayed remembering and delayed recollection, which is important to understanding déjà vu (or rather, what déjà vu is not). I will make no attempt to complete a theory of meta-memory or memory in general, as that is outside the scope of necessary contents to explain déjà vu and déjà vu-like experiences.

I will argue that the representation of a memory as being imminently representable in consciousness without representing the memory itself is an independent content, which I will call a ‘feeling of imminent recollection’. To establish imminent recall as a unique content of experience, I will set up a contrast case which references the tip-of-the-tongue experience. In experience 1, a subject has been asked what the name of their kindergarten teacher is and she feels like she cannot recall the

name. For experience 2, a subject has been asked the same questions and she feels like she will be able to remember the name in a few moments.

Consider the following premises:

- 1) The overall experience of the subject having experience 1 is different from the overall experience of the subject having experience 2.
- 2) If premise 1 is true, then there is a phenomenological difference between the cognitive phenomenology of the subjects' experience.
- 3) If premise 2 is true, it is a difference with respect to the presence of the representation that a memory is imminently representable in consciousness.

The first premise requires a minimal intuition that such a phenomenal contrast is possible. I will defend premises 2 and 3 from plausible rebuttals.

Irreducibility to Non-Familiarity Sensory Phenomenology

To deny premise 2, one must argue that the phenomenal contrast can be explained by appealing to contents of sensory experience. The strongest version of this rebuttal is the argument that the phenomenal contrast is explainable by appealing to a representation of r-familiarity, so this will be addressed separately in the next section. However, could a non-familiarity based sensory phenomenology explain this representation? It does not seem so. Any sensory phenomenology based rebuttal that is not r-familiarity would face a problem similar to that of the shape-gestalt position in rebuttal to r-familiarity. While it could attempt to explain the phenomenal contrast in terms of some kind of combination of sensory phenomenology, it would fail to explain the part of the phenomenal contrast that involves reference to a particular memory. As

k-familiarity would also not reference a particular memory, but a similarity to memories, the only sensory phenomenology potentially capable of explaining the contrast is r-familiarity.

Irreducibility to r-Familiarity

While r-familiarity may seem similar to the feeling in this contrast, the phenomenal contrast cannot be explained by recognition because it does not involve repetition of a stimuli. In cases of r-familiarity, the phenomenology represents that X, a stimulus in one's senses, matches with an identical case of the stimulus in one's memory. In the contrast case, the experience was of hearing a stimulus (a question) and feeling like one could remember the answer, which is not identical to the stimulus. Therefore, it is clearly distinguishable from a case of recognition-familiarity, denying premise 2.

Rebuttal from Phenomenal Thought

In order to deny premise 3, that the phenomenal contrast is with respect to a feeling of imminent recollection, one must argue that the phenomenal contrast can be explained by phenomenal thought, memory, or a non-memory referencing cognitive phenomenology. First, I will argue that phenomenal thought cannot explain the contrast.

Explaining the contrast with phenomenal thought would be to say that the unique content represented in the latter experience is the phenomenal thought "I believe I know my kindergarten teacher's name", "I believe I will be able to remember my kindergarten teacher's name," or some semantically similar variation.

Brief introspection on the feeling of tip-of-the-tongue, referenced in the contrast case, is enough to show that the conscious belief that you know something is phenomenally different from the tip-of-the-tongue experience, the feeling that you will be able to remember something. The tip-of-the-tongue experience, and therefore imminent recollection, represents more than knowledge that x. The reason the tip-of-the-tongue experience is so trying, and the resolution of the tip-of-the-tongue experience so satisfying, is that the experience represents that you will be able to do something now. There is a critical element of imminence.^{24 25}

One recourse for the phenomenal thought rebuttal is to include a belief in imminence in the thought represented. For instance, would the belief “I believe I will be able to recall the name” be phenomenally distinct from a feeling that represents that I will be able to recall the name? These two representations are remarkably similar. They are only different in that phenomenal thought represents “that I will be able to recall it soon” through a conscious thought or understanding while the feeling of imminent recollection I am arguing for represents this feeling as an independent, unified feeling. There are two objections to this, however. The first is solely on the basis of introspection. Considering your own experiences of phenomenal thought and tip-of-the-

²⁴ The representability of imminence as a content of consciousness is discussed as a fringe phenomenology by Peter Forrest in “Cognitive Phenomenology on the Fringe.” Forrest suggests that feelings of imminence include both a locating element that makes conscious that information is present in consciousness, and an evaluative element that represents to the subject general properties of the information (such as whether the information is positive or negative) (Forrest 13).

²⁵ This is evident in the psychology of Tip-of-the-tongue as well. Tip-of-the-tongue research methodology relies upon a distinction between “objective” and “subjective” TOT experiences where an experience is only objective if the experience is actually able to remember the word within a short-term time frame, confirming that they were actually having the experience (Schwartz 2014, 7). In fact, this characteristic, that TOT experiences imply imminent recall is a main way to differentiate them from general feelings of knowing which imply an expectation of recognition upon exposure to the stimulus.

tongue, if tip-of-the-tongue were just another phenomenal thought, it would be phenomenally distinct from all other phenomenal thoughts. Second, the phenomenology of a belief in imminence is intuitively different from the phenomenology of a feeling of imminence. It is easily conceivable that one could, in response to a TOT situation, believe it was unlikely they were going to get the word but feel like they were about to get it. The apparent separability of the experiences and introspection on one's own experiences of imminent recollection show that phenomenal thought cannot explain away the contrast.

Relationship of Feeling of Imminent Recall to Memory

The primary reason that the contrast cannot be explained by an appeal to memory is that the subject does not actually remember the name. Therefore, memory cannot explain the contrast. However, it is worth clarifying the relationship of the feeling of imminent recollection to memory.

The feeling of imminent recollection and memory with respect to that feeling cannot coexist because to consciously represent the memory related to in the feeling is to resolve the feeling of imminent recollection (consider that you cannot both remember the word and be in a TOT state). The feeling of imminent recollection does not entail anything about memory except that the memory referred too is not being consciously represented concurrently. There is no entailment the other way, however. You could experience r-familiarity towards a name when it is mentioned but have had no feeling of imminence, for instance. Therefore, the presence of an unrecalled memory does not entail the feeling of imminent recollection. Finally, it seems that you could

have the feeling that you know your teacher's name, and when told the name, not recognize it. So the feeling of imminent recollection does not even entail that a memory is actually present, though it is usually diagnostic. The only relationship the feeling of imminent recollection has to actual memory is to imply that it is present and will be recallable soon.

This understanding allows us to briefly clarify a small part of the phenomenology of memory. Imminent recollection, an experience of meta-memory, has an independent content and the feeling of memory itself has a unique experiential content. This is by no means a complete phenomenology of memory, but it does allow us to clarify concepts for *déjà vu*. For instance, the experience of delayed memory can be explained as having the feeling of imminent recollection followed by a resolution of that feeling by the conscious representation of a memory.

Irreducibility to Other Cognitive Phenomenology

Could some other cognitive phenomenology, something like non-sensory experiences of pleasure or fear perhaps, explain the contrast? In order to explain the contrast, the explanatory phenomenal content must somehow refer to memory. Given that *r*-familiarity and memory itself cannot do this, there is not a cognitive phenomenology outside of imminent recollection that is not reducible to imminent recall and refers to a memory.²⁶ Therefore, imminent recollection must be an independent content of experience.

²⁶ In this section I did not discuss the possibility of an alternative meta-memory representation, such as a general feeling of knowing, that lacks the feeling of imminence. I did not do so because such a content would have to be properly characterized and because in this particular contrast case, the inability to

The Resolvability Test

The critical property that distinguishes imminent recollection from a representation that a memory is its imminence. It doesn't just represent that a memory is present, but it represents that one will be able to recall that memory within the next few moments. This characteristic gives it the property of resolvability. Intuitively, the feeling of imminent recollection can be either resolved, if the memory it refers to is made conscious (making the feeling veridical) or resigned, if the memory it refers to cannot be made conscious (making the feeling non-veridical). Imminent recollection is unique because it cannot be had while also experiencing the memory it refers to.

Some argue that the feeling of resolving a feeling of imminent recollection is actually an independent content of consciousness, independent from both the feeling of imminent recollection and the memory (Forrest 12). Defending this, however, is outside of the scope of defending a theory of *déjà vu*, as *déjà vu* crucially lacks this resolution. However, that the feeling implies imminence offers a way to distinguish imminent recollection from r-familiarity. This is important both to defending familiarity as irreducible to imminent recollection and to showing whether an experience of recognition independently coexists with a feeling of imminent recollection, as they are such similar representations. These tasks are both critical to the *déjà vu* project.

The resolvability test would be fairly simple. Consider any experience of recognition. If the experience seems to have a time-limit after which without a change

explain the property of imminence would make this unable to explain the phenomenal contrast. However, I will briefly discuss in the defense of my theory of *déjà vu*, the reasoning behind the content of imminence being necessary to *déjà vu* rather than solely a more general feeling of knowing.

in the conditions of the subject, the subject's phenomenal experience is unsustainable, a feeling of imminent recollection is present.

Familiarity is irreducible to feeling of imminent recall

The resolvability test can effectively show that r-familiarity is not reducible to a feeling of imminent recollection by revealing counterexamples to the claim that r-familiarity entails the feeling of imminent recollection. With the establishment of the resolvability test, nearly every instance of r-familiarity upon introspection actually lacks the feeling of imminent recollection. It is rare that when you recognize something, waiting for a few moments would make part of your experience false. Most experiences of r-familiarity are actually quite mundane and easily maintained for long stretches of time. In the pine tree contrast example, the resolvability test could be used to show irreducibility as if you stretch the latter experience out for 10 minutes, the latter experience does not become false. This brief argument completes the establishment of r-familiarity as an independent content of experience.

Feeling of imminent recollection as a unified experience

While vision, hearing, and pleasure are unified experiences, experiences like color, volume, or pleasure intensity are contents of those experiences. I will argue that imminent recall is a unified experience by comparing instances of it in multiple mediums. While tip-of-the-tongue states seem to be related to linguistic memories, Jonsson and Stevenson discuss the prevalence of this phenomena in olfactory memory as well (Schwartz). In odor identification tasks, for instance, subjects are exposed to

smells that are not given names and often have “tip-of-the-nose” experiences (Schwartz 2014, 309). The evidence points to tip-of-tongue experiences with respect to odor naming to be a function of the inability to identify the odor rather than a linguistic inability. Moreover, while both experiences, tip-of-the-tongue and tip of the nose, are different, they share an identical feeling of imminent recollection that is not unique to their medium. For instance, when a question elicits tip-of-the-tongue towards the answer, or a smell elicits tip-of-the-nose to remember a different smell, there is a shared feeling that one’s memory contains something they will be able to remember soon, showing that imminent recollection is in fact a unified cognitive phenomenology.

Defending familiarity as necessary to déjà vu

After defending r-familiarity and imminent recollection as contents of experience, I will now defend my theory of déjà vu. In order to do so, I must show that r-familiarity, imminent recollection I, and a lack of recollection are necessarily represented in a particular way in order to instantiate the feeling of déjà vu.

First, I will argue that r-familiarity is necessary to déjà vu. If déjà vu is no longer present with familiarity is removed, then familiarity is necessary to the experience.

Consider four examples of déjà vu from the sample of experiences shown earlier:

“An event will occur and I will have the sensation of knowing that the event was going to happen at that time, and I will recognize every detail of it as it happens. It is as though it had already happened. It is as though I have lived through that period of time before” (O’Connor 2008)

“We visited a discothèque in Downtown Disney, and were dancing with two girls from Brazil. Neither one of us had been there before, or had met the girls before. However, when a song played I felt as if I had lived the moment before. I couldn’t remember exactly when or where, but I knew it wasn’t my first time there and with them” (Brown 1)

“...a weird feeling that one has been through all this before, as if time had slipped a cog and were now repeating itself.” Woodworth (1940, p. 357)” (Brown 15)

“The sensation that an event had been experienced, or a place had been visited, before.” Gaynard (1992)” (Brown 13)

Each includes a sense of matching the current experience to something in memory. Moreover, in each description, the part of their experience that is abnormal is the repetitious quality. If the experiences are recast as novel both in the sense of recognition and in the sense of kind properties, nearly nothing of the experience described remains. After removing familiarity, labeling such an experience *déjà vu* would be a misattribution as nothing of the four experiences above would remain at all.²⁷ The result that removing familiarity in any sense from *déjà vu* changes the experience from *déjà vu* to at most a feeling of imminent recall shows that familiarity in some sense is a necessary part of the *déjà vu* experience.²⁸

r-familiarity as necessary to *déjà vu*

However, is it necessary that the familiarity that is a part of *déjà vu* be r-familiarity? Removing r-familiarity from *déjà vu* means removing any notion of identifying particular repetition. Consider what would be left of the Downtown Disney experience if when the song played, he didn't feel as though he had "lived the moment before," but still felt that he had lived that kind of moment before. What would be left is a non-repetition based reference, the feeling that one has been through a kind of experience without representing that one had been through this particular experience

²⁷ In the Downtown Disney experience, it is plausible that the experience also includes a separable description of the feeling of imminent recollection. However, without familiarity, describing the feeling of imminent recollection as *déjà vu* would be similarly misattributing to an ordinary experience. I will discuss the role of the feeling of imminent recollection further in a later section.

²⁸ The relationship between familiarity and *déjà vu* is well established in familiarity-based methods to study *déjà vu* in the psychology literature (Cleary 2012, Cleary 2009, O'Connor 2010). The neurological literature corroborates the involvement of familiarity processes as *déjà vu* reliably activates the medial temporal lobe, associated with memory processes, and particularly the parahippocampal gyrus rather than the hippocampus, indicating that it is involved with recognition-familiarity rather than recollection (Bartolomei 2012, Brazdil 2012, Spatt 2002, Takeda 2011, Wild 2004). The presence of a *déjà vu* aura in seizures of temporal-lobe epilepsy patients supports this link (Martin 2012, Illman 2012).

before. To deny that r-familiarity is a necessary content of déjà vu, k-familiarity would have to be able to explain the accounts of déjà vu in the sample. Consider the example from Downtown Disney alongside a modified version to describe an experience that definitely lacks r-familiarity:

The original experience: “when a song played *I felt as if I had lived the moment before*. I couldn’t remember exactly when or where, but I knew it wasn’t my first time *there and with them*”(Brown 1, Italics added).

The modified experience without r-familiarity: “when a song played, I felt as if I had lived *this kind of moment* before. I couldn’t remember exactly when or where, but I knew it wasn’t my first time *at this kind of place with this kind of people*” (Modified version, italics show changes).

After removing r-familiarity, the experience becomes far more mundane. If there is no recognition requirement, nearly every experience you have on a daily basis could be seen as the same *kind of moment* as one you have had before. Recognition of a particular moment, however, is far more infrequent and more similar to the infrequency of déjà vu. While most people who have had at least one déjà vu experience are likely to have had more, déjà vu remains at most an infrequent experience (Brown 39). In fact, across 10 studies, no more than 5% of respondents report having déjà vu more frequently than on a weekly basis. If the experience that you are seeing the same kind of thing is all that is necessary for déjà vu, déjà vu should be a much more frequent part of our experience. Moreover, consider your own déjà vu experiences. Is there any sense in which you could have the déjà vu experience and not feel as though you recognize the particular experience you are having? Intuitively it seems clear that you could not.

Therefore, it is necessary that the experience involve an experience of r-familiarity to be considered a déjà vu experience.²⁹

If r-familiarity is necessary for déjà vu, k-familiarity will often coincide. While it is theoretically possible that one could have a déjà vu experience while recognizing a kind of object they cannot identify, kind familiarity will rarely be lacking where recognition is present. It is also worth noting that as the object of recognition can vary greatly, this can explain the great variety in the object of déjà vu experiences. While some experiences of déjà vu seem to refer to local acts like writing an essay or looking at a dress, others refer to events as a whole. There seems to be no limit to the number of features that can be recognized together, so déjà vu experiences can refer to both very particular and very broad instances of recognition, capturing this variance.

R-familiarity is insufficient for déjà vu

“The sensation that an event had been experienced, or a place had been visited, before.” Gaynard (1992) (Brown 13)

Descriptions of déjà vu like Gaynard’s show that recognition familiarity is critical to déjà vu. However, recognition familiarity is an entirely ordinary experience. We recognize particular things in our lives frequently. Gaynard’s description clearly intends to capture a unique experience, a “sensation,” so it would be remiss to assume that it is simply an experience of recognition. As I showed in the skeptical section, claims of déjà

²⁹ There are many neurological theories of déjà vu that seek to explain how false recognition could be caused in déjà vu. Pathway delay theories argue that an experience of déjà vu could be created if information reaches one hemisphere slightly before the other, creating the impression that one had already seen the information in the first time the information is being processed (Brown 2004, 142). Similarly, as déjà vu is so prominent among temporal-lobe epilepsy patients, some theorize that a small temporal lobe seizure could cause impressions of familiarity in non-diseased individuals (Brown 2004, 138).

vu clearly refer to a unique and out of the ordinary experience that subjects identify and respond too, not ordinary cases of recognition.

The veridicality of experiences of recognition also cannot adequately explain the sense that déjà vu has clashing evaluations or is “inappropriate,” as in the operational definition. In cases of non-veridical recognition, it *feels* like the experience is veridical. Experiences of false recognition are represented as true. Consider this subjective report of a patient with hyperfamiliarity, where unfamiliar faces appear familiar:

“Walking on the street, every person I see looks familiar to me. I say hello to everyone. There was a baseball game between a predominantly black town, and mine, which is mainly Irish Catholic. The other coach is black and I felt like I definitely knew him. I walked over and asked “Don’t I know you?” They guy looked at me and said “I don’t think so.” When I walked back everyone asked me what the hell I was doing” (Devinsky 2010).

This sort of experience shows that even in out of the ordinary cases of recognition, as in face recognition errors, the experience is phenomenologically ordinary. In this case, the subject has an experience that seems entirely ordinary and deduces that something is awry from the reactions of those around him. This is entirely distinct from the experience of déjà vu, in which subjects seem to be able to diagnose that their experience is wrong from the phenomenology of the feeling itself. Consider that without interaction, the hyperfamiliarity subject may never have known anything was wrong. Déjà vu, however, seems to essentially contain the awareness that something is in some way false or inappropriately represented. As recognition familiarity cannot distinguish déjà vu from ordinary experiences of recognition nor explain certain important features of déjà vu phenomenology, it is insufficient to explain déjà vu.

Feeling of imminent recollection as necessary to déjà vu

As recognition familiarity is insufficient to explain any instance of déjà, a phenomenological theory of déjà vu requires an additional content to suffice for déjà vu. This content will have to explain how déjà vu feels “inappropriate” or “false” in some sense, will have to adequately differentiate déjà vu from recognition, and will have to explain why awareness of recognition is so prevalent in déjà vu as opposed to ordinary cases of recognition³⁰. Moreover, déjà vu does not feel like multiple separate contents, so the additional content must make sense of how déjà vu feels so unified that definitions like Gaynard’s can attempt to explain it with a mere description of recognition.

I propose that a representation of imminent recollection would be able to sufficiently differentiate déjà vu from ordinary recognition as well as respond to these questions. First, imminent recollection has two veridicality conditions: 1) the memory is in fact recallable, and 2) the time it will take to recall the memory will be short. Therefore, if the memory cannot be recalled after a short time and there is no memory to be remembered, the phenomenology of imminent recall will ‘feel false’ in virtue of internal experience, regardless of one’s ability to deduce this from one’s circumstances³¹. Second, imminent recollection, like r-familiarity, refers to the presence

³⁰ In a deep brain stimulation study, electrical stimulation reliably causes déjà vu experiences in the subject (Kovacs 2009). However, the experimenters noted that the subject “only experienced déjà vu if her eyes were open and she was questioned directly.” They also noted that passive auditory stimuli such as background noises and conversation never caused a déjà vu experience. This is notable because ordinary r-familiarity does not seem to require this awareness. Daily recognition is a frequent experience without the metacognitive noting of that recognition.

³¹ The literature shows that about half of tip-of-the-tongue experiences are resolved within one minute and 50% of subjects correctly guess the first letter of the word they are looking for. This shows that it is

of a particular memory. A theory of déjà vu as the coinciding of recognition familiarity and the feeling of imminent recollection with respect to the same memory would feel like one cohesive experience that is differentiable from recognition, as the object of the representations in both cases is a particular memory. Moreover, while some descriptions in the déjà vu sample describe recognition alone, when the account includes another experience, it is always a feeling that represents the presence of a memory:

“...a definite ‘feeling that all this has happened before,’ sometimes connected with a **‘feeling that we know exactly what is coming’** – a ‘feeling’ that persists for a few seconds and **carries positive conviction**, in spite of the fact and the knowledge that the experience is novel.” Titchener (1928, p. 187)” (Brown 15, Bold Added)

“For a few precarious seconds, the chaplain tingled with a weird, occult sensation of having experienced the identical situation before in some prior time or existence. He endeavored to trap and **nourish the impression in order to predict, and perhaps even control, what incident would occur next, but the afflatus melted away unproductively**, as he has known beforehand it would. *Déjà vu.*” (Heller 204, Bold Added)

“An event will occur and I will have **the sensation of knowing** that the event was going to happen at that time, and I will recognize every detail of it as it happens. It is as though it had already happened. It is as though I have lived through that period of time before” (O’Connor 2008, Bold Added)

These samples, and the content bolded, show that outside of recognition, there is often a feeling related to memory cited as a content of déjà vu.

One potential rebuttal is to challenge the need for the property of imminence, as imminence does not seem prominent in the samples of déjà vu. It seems plausible that a simple feeling of knowing, representing that a memory is available without the representation that it will be imminently recollected, could explain the phenomenology of déjà vu. This sensation must represent imminent recollection, rather than just a feeling of knowing (representing the presence of a memory without the imminence or

part of the tip-of-the-tongue phenomenon to both involve imminent resolution and involve semantic information related to the target memory (Brown 1991). If no memory exists, it would be quickly apparent that the experience is non-veridical on multiple counts.

ability to recall) for several reasons. First, the accounts of déjà vu show that the feeling is related in some way to the short-term future. Second, the primary way to differentiate a feeling of knowing from a feeling of imminent recollection as used in the psychology literature on tip-of-the-tongue experiences is that while subjects with feelings of knowing express confidence that they will recognize a stimulus (implying that there is a memory), subjects with tip-of-the-tongue are expressing confidence that they will be able to recall a memory (implying that the memory will be remembered soon) (Brown 1991). Third, the psychological literature shows that ordinary feelings of knowing lack both a feeling of imminence and, as a result, an active search for the target memory (Schwartz 2014, 95). Without the feeling of imminence, déjà vu would not necessarily be noticed as non-veridical as it would have no resolution conditions. People can have non-veridical feelings of knowing that remain untested, but it does not seem to be the case that one could have an experience of déjà vu and not yet know that it feels inappropriate. As such, the feeling of imminent recollection is necessary to the déjà vu experience and able to explain significant parts of what is left unexplained by recognition.

Lack of recollection is necessary for déjà vu

While déjà vu as the experience of recognition coinciding with the feeling of imminent recall suffices to explain most cases of déjà vu, it does so only in conditions where the feeling of imminent recall is false on both veridicality conditions. Imminent recall can be resolved or unresolved, and in cases where it is resolved, there would be no way to distinguish déjà vu from an ordinary experience of delayed recollection.

Therefore, déjà vu must necessarily lack recollection. Furthermore, in déjà vu there cannot be a memory that is nearly being recalled. If there were, the experience would be partially veridical and make the experience of recognition and imminent recollection an ordinary, if frustrating, experience. Without the memory, however, the feelings are empty of any veridical content and adequately explain the strange déjà vu experience.

With this information, my theory can properly explain how déjà vu can feel phenomenologically “inappropriate” or “false.” The property of imminence entails attention to the presence or lack of a memory. This explains the awareness of recognition and necessitates that the subject of the experience notice that something is awry. Moreover, while feelings of imminent recollection are typically accompanied by some semantic information about the memory, the complete lack of a memory makes it so that the subject will immediately notice that their experience is representing something false. Also, if the subject notices that recognition is impossible, for instance if they have evidence that they have never seen the object of déjà vu before, it would make the experience even more strange.

There are certain exceptional conditions that could allow someone to have a real experience of déjà vu and believe that it was resolved. Déjà vu typically lasts for 5-7 seconds, so if as the feeling faded, one came up with an explanation of why their feeling of recognition made sense, one would end up believing that they had a resolved déjà vu experience.

Even so, experiences that are phenomenally similar to déjà vu should be possible, though unlikely, even if the individual actually has been to the place before³². As mentioned in the phenomenal thought sections, the belief that you haven't been to a place before is an evaluative notion separable from the déjà vu experience. Moreover, we can see in examples such as pharmaceutical or deep brain stimulation cases of déjà vu that the fact of whether or not an individual knows they have been somewhere before does not change whether or not they are having a déjà vu experience. The critical factor for an experience to be one of déjà vu is that it is an experience of recognition, the feeling of imminent recollection, and no memory exists to be recalled. This could occur if the person had never been to a place before, but it could also occur if the person was experiencing recognition and imminent recollection for a memory that did not exist while in a place they had been before. Therefore, the fact of whether or not they have been to the place before does not seem to be a necessary characteristic of déjà vu.

Other potential contents of déjà vu

With recognition, imminent recollection, and the lack of recollection, I am able to explain at least a significant part of déjà vu phenomenology. It is possible that there are other contents of déjà vu that are not necessary but can be part of certain instances of the déjà vu illusion. In establishing these contents, one must be wary of confusing a correlated content with a content that is part of déjà vu itself. For instance, many

³² O'Connor and Moulin explain the robust correlation between travel frequency and déjà vu frequency by arguing that the knowledge that one hasn't been to a place before is critical to déjà vu as déjà vu critically involves clashing evaluations (O'Connor 2013). I make my argument against this in the section on skepticism from phenomenal thought.

people associate déjà vu with fear. However, others may find it pleasing. This seems more analogous to a response to an experience than a part of the experience itself. Therefore, my theory of déjà vu should capture all of the necessary contents of déjà vu and leaves open the possibility of a variety of responses to déjà vu which may introduce further variation in experience.

Reviewing the phenomenology of déjà vu

Representational Theory of Déjà vu: For a subject to experience déjà vu is for feature(s) of the subject's experience to be represented as having already been experienced while simultaneously having it represented that the subject will soon be able to recall a memory of the recognized feature(s) even though she finds she cannot recall this memory while these representations are concurrently present.

Any experience with these contents in this particular manner would match a sample of accounts of déjà vu accounts very well and avoid classification as a simpler alternative to déjà vu (alternatives include recognition, feeling of imminent recollection, recollection, delayed recollection, delayed memory, false memory, and hyper-familiarity). Therefore, these contents are both necessary and sufficient for déjà vu.

Upon closer examination, déjà vu is simply a particularly unified mixture of two common experiences that are actually very similar in representational content in circumstances that make them non-veridical^{33 34}. For them to overlap *and* for neither to

³³ It turns out that TOT states and recognition without identification *can* overlap. In fact, during TOT states for names, subjects reliably rated the chances they had seen studied stimuli before higher for the

correctly imply that one will be able to remember the experience or that there is in fact a memory at all explains why déjà vu seems so strange³⁵.

This theory also explains the many subtypes of déjà vu as being the same experience. Neppe proposes more than 40 different kinds of déjà vu experiences (Neppe 2010). However, under my theory, nearly all of these could be represented with the same contents as déjà vu, just as contents of different mediums (vision, thought, taste, audition, etc.).

Under this theory of déjà vu, much of the mystery of the strange phenomenology of déjà vu can be successfully explained as the coinciding of two ordinary experiences. The content of recognition-familiarity explains why the core feeling in déjà vu is always described as a phenomenology of recognition while the content of imminent recollection explains how déjà vu can be differentiated from ordinary recognition and why it requires the awareness that something is wrong. While this theory does not explain the psychological or neurological cause of this experience, it should make the déjà vu experience much easier to engage with and describe.

Potential Objections from the Literature

respective faces than when not in a TOT state (Schwartz 2014, 79). In these cases, however, the TOT states were towards names rather than towards memories of the faces being recognized, so these overlaps do not satisfy the conditions of my theory of déjà vu.

³⁴ This theory also mimics very well theories of déjà vu that explain the phenomenon as a result of familiarity and retrieval processes which are operating independently of each other in the instance of déjà vu (Brown 2004, 128).

³⁵ While Tip-of-the-tongue experiences happen roughly once a week, déjà vu experiences happen only 63% of respondents have a déjà vu experience at even a monthly basis (Schwartz 2014, 17; Brown 2004, 40). This discrepancy makes sense because ordinary tip-of-the-tongue experiences contain semantic content, an actual memory nearly remembered. For one to have such an experience without any actual memory should be rare and would explain why while replicating recognition without identification and tip-of-the-tongue in a lab is possible, it is much more difficult to replicate déjà vu. Moreover, as a neural mechanism for déjà vu is still uncertain, the frequency expected for déjà vu remains unclear.

Before concluding, I will address three potential objections to my phenomenological theory that could arise from observations in the cognitive science literature.³⁶ First, an empirical study found no correlation between individual differences in tendency towards recognition errors and tendencies to have increased instances of déjà vu or higher ratings on déjà vu frequency correlates such as frequency of travel (O'Connor 2013). One might object that if déjà vu is the coinciding of a recognition error with an erroneous feeling of imminent recollection, we should expect individuals with higher rates of recognition errors to have a higher frequency of déjà vu. O'Connor and Moulin suggest, however, that their study likely implies that the cause of the recognition error in déjà vu is not the same as that of an ordinary recognition error. They suggest that this supports theories of déjà vu as a "random neural event."³⁷ If this is so, psychological and phenomenological models would not be expected to generate replicable instances of déjà vu in healthy subjects without direct interference in brain activity.

A similar objection might arise from noticing that recognition without identification (RWI) and tip-of-the-tongue (TOT) paradigms have been unable to reliably produce déjà vu. So far, familiarity and recognition paradigms which have succeeded in reliably reproducing RWI and TOT have been heavily criticized for their attempts to

³⁶ These objections are based on the expectation that there should be a strong relation between psychological and phenomenological explanations of experience. If this is not the case, these objections would be resolved. However, I will assume such a relation is likely in developing the objections.

³⁷ This is in agreement with small seizures theory of déjà vu that propose déjà vu is caused by a miniature spontaneous seizure in the temporal lobe (Brown 2004, 138).

reproduce déjà vu³⁸. However, there are multiple reasons that these studies may not be expected to reproduce déjà vu in a lab. First, these studies attempt to reproduce these phenomenon within ordinary memory paradigms, so if déjà vu does result from a random neurological event, it should be difficult to reproduce in this way. Second, even if déjà vu can be produced with ordinary memory experiments, the TOT paradigms typically produce TOT in cases where the subjects actually have a memory they cannot retrieve. Experimental paradigms on illusory TOT, where experimenters can verify that the subject cannot possibly actually have the memory, have been unable to replicate the phenomenology of ordinary TOTs, noting that such illusory TOTs are significantly weaker with respect to the intensity and feeling of imminence (Schwartz 2000).

Finally, an objection from the available neuroscience on déjà vu could be that if déjà vu does have a significant meta-memory component, it is suspect that all of the neurological evidence on déjà vu is concentrated in the temporal lobe with no mention of an increase in activity in the prefrontal cortex (which would be expected if déjà vu involved meta-memory).³⁹ While prefrontal cortex activity might be expected of ordinary TOT experiences, it is unclear if this should hold for illusory TOT experiences which lack actual underlying semantic memories. Therefore, this does not pose a significant challenge to my theory.

³⁸ In one such model, subjects reported déjà vu in 17% and 26% of the trials in two experimental conditions (Cleary 2009). However, 13% and 23% of the control trials also reported déjà vu in each condition respectively. O'Connor and Moulin note that while these 3-4% differences were statistically significant, they suggest "that what participants reported as déjà vu may have differed considerably from the construct the experimenter intended to assess" (O'Connor 2010).

³⁹ O'Connor and Moulin note that many researchers have proposed a link between déjà vu and meta-memory, analogous in particular to the TOT phenomenon (O'Connor 2013).

Conclusion

The results of the development of a phenomenology of déjà vu could be potentially impactful in a variety of ways. First, my theory of déjà vu phenomenology defends a view of déjà vu as a recognition and meta-memory related phenomenon that is common in the psychology literature on déjà vu. It solves the problem of differentiating a theory of déjà vu as familiarity without recollection from ordinary experiences of recognition in terms of its phenomenology. It also gives a specific account of the nature in which déjà vu feels ‘inappropriate.’ Second, my theory demonstrates how the method of phenomenal contrast could be used to explain so called “fringe” phenomenology and expand the reach of representationalism. Speculatively, the phenomenon of jamais vu⁴⁰, where the subject perceives and correctly identifies the stimulus but oddly lacks recognition, could likely be explained with a similar method, similar representational contents in a different configuration. Finally, this theory provides a way to specifically pinpoint the phenomenology of déjà vu, potentially removing some of the mystery from such a strange experience and giving cognitive science researchers a non-circular and non-ambiguous way to discuss their target phenomenology. This should give research on déjà vu as well as recognition memory and meta-memory a phenomenological theory to parallel progress in psychology and neuroscience.

⁴⁰ Jamais vu is often referred too as superficially the opposite of déjà vu, a case where something that should be recognized feels oddly unrecognized though identifiable (Brown 2004, 106)

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