CHAPTER 7

Referring *De Re*

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My interest in the *de re–de dicto* distinction goes back to my first years at UCLA.[1] The two colleagues who spurred my thinking most on the topic were Keith Donnellan and David Kaplan. Donnellan's influence stemmed from his generous discussion with me of my work on proper names and demonstratives and from my reading his marvelous papers "Proper Names and Identifying Descriptions" and "Reference and Definite Descriptions." Both sources of influence from Donnellan impressed on me the power of examples. Donnellan was a master of examples.

His simple, intuition-based discussion of cases conveyed a powerful *Gestalt* or picture of how reference is established—at least with proper names and referential uses of definite descriptions.

The key to both types of case is that the individual who engages in reference has a supplementary route to the referent beyond the description. In the name case, Donnellan maintained the view—independent of and complementary to Kripke's view—that the speaker relies on chains of passings of a name from one speaker to another in communication. The chains are originally grounded in uses of a name that have a direct, noninferential, not purely descriptive—commonly perceptual—relation to the referent. In the case of referentially used definite descriptions, Donnellan indicated that the referent is determined by speaker intent, which is in turn guided by what the speaker "has in mind."

In both cases, reference bottoms out in *psychological* capacities that are appropriately related to the referred-to entities. The "has in mind" metaphor is evocative, but needs development. An individual has an entity in

mind, in the relevant sense, only by having certain ways of thinking of it or perceiving it. These ways are not-purely-descriptive. But like all psychological states and competencies, they are perspectival. They involve only one of many ways of thinking of or perceiving the entity. And they access the entity through indicating only some of its many aspects. No one can have entities in mind, in the relevant sense, *neat*. I was somewhat bothered by the lack of development of the metaphor.

Donnellan seemed to recognize that perception and perceptual memory were paradigmatic instances of picking out an object in the relevant direct way. One of his most powerful examples in "Proper Names and Identifying Descriptions" invoked the fact that one can perceive an entity (perceptually refer to it) even though one misperceives important characteristics of it. In his example, one perceives an entity while perceptually mislocating it. Similar points could be made for color, shape, sortal kind, and so on. An entity can be perceptually referred to even though salient perceptual characterizations do not fix the referent; they may even mischaracterize it.

The parallels between perception, on one hand, and names and referentially used definite descriptions, on the other, are clear. In both cases, reference goes through, even though salient associated descriptions or associated perceptual characterizations (or perceptual groupings or perceptual attributions) that one relies upon fail to be veridical of the referent. In fact, the connection is more than a parallel. Perception underlies all the cases of having in mind that Donnellan discusses. The linguistic references succeed because, through one route or another, they are connected to the referent by perception.

Through his powerful perception example, Donnellan tied his discussion of empirical reference to perception more explicitly than Kripke or Putnam did. But none of the three developed the psychological basis for empirical reference. None reflected on the nature of perception and the way it contributes to relevantly direct, context-dependent forms of linguistic reference. This omission constituted, I think, an unfortunate failure to follow the subject beyond the boundaries of philosophy of language, narrowly construed.

There are certainly distinctively linguistic elements to linguistic reference, even beyond the bare fact that words are used. For example, the role of chains of communication in maintaining reference in most uses of proper names is distinctive of linguistic reference. Similarly, the interplay between conventional and contextual elements in certain uses of definite descriptions is distinctive to language. Donnellan illuminated both of these phenomena. But clearly the ground of all empirical linguistic reference lies in perception.

I believed, and argued in "Belief *De Re*" (1977), that the sort of immediate, not purely descriptive reference (*de re* reference) that Donnellan illuminated grounds all reference—indeed all other representational relations. *De re* reference grounds all other representation in the sense that it is

a constitutive precondition for other representation. Perception is a paradigm and grounds nearly all empirical representation. There are other types of *de re* reference as well—for example, in mathematics and first-person reference. Such nonempirical forms of *de re* reference depend not on perception or other sensory capacities, but on understanding. I wanted to discover a characterization of *de re* phenomena that would center on individuals' psychological capacities and that would include bases in both sensory capacities and capacities for understanding. I have struggled with this issue off and on—perhaps usually on, at least subliminally—for over three decades.

This paper is one product of this struggle. It formed section 5 of my article "Five Theses on *De Re* States and Attitudes," which appeared in a festschrift for David Kaplan. I believe that it is equally appropriate for this volume honoring Keith Donnellan. I hope that he will see in it some fruits of his influence.

The *de re–de dicto* distinction reaches far back into philosophical tradition. Much of this tradition concerns modality. Some of it concerns representational states. Modern discussion of *de re* states and attitudes stems from reconsidering Russell's notion of acquaintance.[2] In "Quantifiers and Propositional Attitudes" (1955) Quine made a show of reviving the distinction in his analysis of belief sentences. Although he was sensitive to the intuitive epistemic distinction, his philosophical concerns were almost entirely logical and linguistic.[3]

In "Quantifying In" (1969) Kaplan turned discussion back in what I think to be the right direction: toward understanding the epistemology of attitudes, not the linguistic form of attitude attribution. He explored an *en rapport* representational relation between the cognitive subject's beliefs and some *res*.[4] Kaplan avoided Russell's untenable epistemology and philosophy of mind. He sought a relation underlying Russell's intuitions but grounded in everyday considerations. Kaplan was guided both by *linguistic phenomena* associated with quantification into contexts of belief attribution and by *cognitive paradigms* of perception and perceptual memory. I think that he leaned too much on the linguistic phenomena. I think that his denotation and vividness conditions, and even his of-ness condition, are not right. These drawbacks seem to me far less important than his valuable initiative in exploring epistemic intuitions about cognitive states that go beyond conceptualization or description.

In "Belief *De Re*" (1977) I criticized some theses of Kaplan's paper and noted some ways that linguistic focus blurred a clear view of the epistemic basis for the distinction.[5] I centered the account more on epistemic considerations. That paper is the basis for the reflections in the present work. But in that paper I too leaned excessively on linguistic phenomena.[6]

Although nearly everyone, from Russell onward, took perception as the paradigm of *de re* phenomena, most conceived the distinction mainly in linguistic terms. Given that linguistic attribution of attitudes is subject to pragmatic pressures other than specifying the types of attitudes being attributed, there is no simple correlation between types of attribution (showing logical features like those that interested Quine) and types of state. The gradual realization of this fact led to a malaise. Some wondered whether there is any *de re–de dicto* distinction at all.

The initial lesson here is easy and old: Look not to ordinary language for immediate or final insight into the nature of things. Ordinary language is busy with too much else to provide unstinting service to philosophy or science, insofar as they are concerned with something beyond language itself. This is not to say that the nature of things is always esoteric or surprising, or that language does not yield insight. It is just to say that linguistic attribution of cognition and cognition itself are really quite different matters, with only complex relations between them.

Even with the lesson assimilated, one can find it hard to decide what should be understood by the *de re–de dicto* distinction. There are many distinctions in the area. Some grade off into vagueness after a few clear cases. Some clamor against one another to be attached to the famous terms. I believe that it remains a fruitful enterprise to seek a distinction connected with the terms that is conceptually rich, but is clear enough to serve philosophy, and perhaps even science.

I began with two of Russell's ideas. One is his idea of a representational state that is not purely descriptive. The other is his idea of perception as paradigm. Combining the two ideas, I began by reflecting on not purely descriptive aspects of perception. Perception does involve more than the analogues of descriptions. It involves context-bound singular elements guided by but not replaceable by nonschematic, semantically general, ability-general attributive representations.

When we visually represent a scene, the visual system contributes ability-general representations that attribute kinds, properties, and relations. These representations cannot be all there is to perceptual representation. If a perceptually indiscernible scene were to be somewhere else in the universe, one would perceive the scene that causes one's perception, not the duplicate scene. Intuitive and scientific considerations rule out attributing to the perceptual system representations like whatever causes this representation. The perceptual system cannot itself discern the difference between the two scenes by means of its general representational abilities. Since representations function partly to mark ability, the general representational abilities should be type-identified or marked by semantically general representations, which apply to both scenes. The perceptual system functions to represent

entities relevant to the individual's functions. In the case of hypothetical duplicates, the individuals see and perceptually represent particulars that cause their perceptions in the context. So a context-bound, semantically singular element is needed to account for the perception's (fallibly) representing the particulars in front of it.[8]

I took perception to be a paradigm *de re* state. An initial hypothesis arose from reflection on this paradigm. The *de re* nature of the states involves their being partly type-identified by context-bound singular representations (applications) that do not rely purely on nonschematic, semantically general, or ability-general attributives for their representational success.

Extending this initial paradigm to perceptual memory, to perceptual belief, and to belief based on perceptual memory would raise many interesting issues of detail. I think, however, that the basic form of the extension is not hard to see. All such states have in their representational content a singular representational element, inherited from perception, that marks a fallible representational ability that is context-bound, not ability-general. All such *de re* states and attitudes involve representational abilities that are singular and context-bound. This is the analogue of the more linguistically oriented dictum "Showing beats telling."

Before proceeding, I want to flag an issue that I will not pursue here in depth. Strictly speaking, to be *de re*, a state or attitude must *succeed* in referring to a *res*. Seeing requires referential success and is paradigmatically *de re*. Is seeing a psychological state or attitude?[9] Ordinary language is liberal with state talk. Perhaps it is a state. I doubt, however, that it is a fundamental explanatory kind, as opposed to a kind to be explained, in psychology. Even if it is, there are psychological kinds that include both seeings and perceptual, even referential, illusions. Such kinds figure in explaining seeing.[10]

Explanations in psychology fix on perceptual states that in normal conditions constitute seeing. They are motivated by the phenomenon of seeing. They begin by explaining the successes. Anti-individualism takes seeing to be the phenomenon that underlies the determination of ability-general visual representations. But the methods and explanations of psychology count states the same in conditions when the individual and perceptual system are fooled. It is central to the methodology of the science of vision that this be so. There are solid general empirical reasons for this that I shall not go into in detail about here.[11] Briefly, psychological kinds involve the processing of perceptual representations according to certain principles that come into play given stimulation of the retina. These principles hold regardless of whether the stimulation derives from a *res* in the normal way that makes successful perception possible. In cases where the representations arise from contextually abnormal distal conditions, the psychological processing may remain the same. Perceptual states are individuated in psychology to

allow the same kind of state (at one level of kind-individuation) to be the same whether it is veridical or illusional. Explanatory successes in the psychology of vision have been united in following this methodology.

The difference between successful perceptual reference (or seeing) and perceptual referential illusion can be serendipitous. The difference can turn on the whim of the experimental psychologist. Fundamental psychological explanation abstracts from such vicissitudes. Even if seeing *does* turn out to be a psychological kind in this narrow sense, it is clear that there are explanatorily relevant psychological kinds that are not factive, as seeing and knowing are.

I am interested in the broader array of psychological states that help explain seeing, even though not all are successfully "of" a *res*. Seeing and other strictly *de re* phenomena are explicitly relational kinds.[12] They are real. They are in some ways fundamental. They motivate the explanatory kinds that psychological explanation actually uses. These latter kinds have the same form as strictly *de re* phenomena, but do not require referential success. They constitute an important psychological kind. When I write of *de re* states or attitudes, I mean that they are proleptically *de re*: they are states and attitudes of a sort that when successfully referential are *de re*.

Let us return to the issue of what if any states and attitudes to count as *de re*—beyond perceptions, perceptual beliefs (and other perceptually informed attitudes), and memories of all these. *De re* is a term of art. One could stop here. I think, however, that there are further cases that belong among mental states or attitudes that can reasonably be called *de re*. We should avoid the empiricist presumption that the only sort of not purely descriptive representational or epistemic relation that we have to a *res* is through perception. Avoiding this presumption leads to a range of interesting phenomena that have some of the "directness" of the perceptual, but that are not empirically based and not dependent on causation in the same way that perception is.

All cases of *de re* states and attitudes so far discussed have featured causation by the referent. I think that there are *de re* states and attitudes that do not have this feature.[13] I begin simply by collecting some examples. Collection will continue to be guided by Russell's idea of reference to an object via not purely descriptive means. There are at least four types of cases.

One type involves uses of simple indexicals in thought. My occurrent thought that I am speaking seems clearly *de re* with respect to me. The referent of I is not fixed by some event in me causing the occurrence of I It is fixed by my" It is fixed by my being the thinker. The referential and epistemic access to myself in such a case is not essentially empirical. I can know empirically that I am speaking. But referential and epistemic access to myself need not rely on empirical means. I may have already identified myself through my

awareness of the thinking. If the empirical information I had about myself were mistaken, I would still succeed in representing myself with I. Access goes through a framework role for I and through intellectual access to my occurrent thought. Neither the framework role nor the awareness of my thinking is reducible to empirical or other causal paradigms of reference.[14]

I think that similar points can be made for normal uses of now, and some occurrences of here, in thought. A thought it is now raining is normally *de re* with respect to the present moment. The referent is fixed neither by some context-free description nor by the present moment's causing the occurrence of the indexical. It need not be fixed through perception of other things. It is fixed by context-bound application of the schematic concept now.

Reference through such indexicals is certainly not purely descriptive. Context-bound singular application is necessary. Our epistemic access to ourselves, to the present time, and often to the present place, through indexicals is not purely a matter of perception. There need be no separate faculty of apprehension of the referents. The epistemic access is associated with the mastery of certain frameworks and systems of coordination—including general egocentrically oriented systems of action and general temporal and spatial abilities. But these frameworks mark, at their *de se*, spatial and temporal anchor points, immediately applicable cognitive and practical abilities.

The range of "indexical" referential phenomena is wider and more primitive than the cases just mentioned may suggest. Many animals that lack propositional attitudes have perceptual systems and activities geared to their perceptions. Egocentric indexes that are relevant to action (fleeing, eating, mating perceived objects) are built into the framework of all perception and action. Framework origins of temporal and spatial perceptual frameworks are associated with the egocentric indexes. These are primitive analogues of the conceptual indexicals I, now, and here. These indexes indicate their referents not through causal relations, but through context-dependent orientation of the frameworks that they anchor in perception and primitive agency.

These markers' referential success does not depend on a present perceptual or other causal relation to the "referents" that they index. The referential link is established in having and using competencies constitutive of a representational perspective. All *de re* representation in states and attitudes, even in perception, hence *all* representation, presupposes that these direct, noninferential, nondescriptive links are in place.[15]

A second group of cases that are plausibly *de re* but where causation is not necessary for reference comprises certain types of self-knowledge of one's mental states and events.

Some self-knowledge is empirical and causally based. One can know one's mind from the outside by observing oneself. Even some authoritative self-knowledge has a causal base. My belief that I have a memory of hearing Rubinstein play Chopin's Third Scherzo might be based on the belief's being caused by the original experience.

Some of our self-knowledge, however, is neither warranted through perception nor dependent for successful reference on being caused by the mental events that are known. In the *cogito* thought I am hereby thinking that music is valuable there are noncausal representational relations to the author of the thought and the present time. These are *de re* indexical references of the sort already discussed. The *cogito* thought also contains *de re* reference to the event of thinking the thought. The representational relation to the thought event is not caused by the thought event that it is about. There is no perception of it. The reference depends on the mental activity and on the form of the thought, not on a causal relation between *res* and representation. The knowledge is intellectual, not perceptual or causal. Understanding the thought that one is thinking suffices for knowing that it is occurring.

A third type of case is closely related to the second. It seems to me that one can have not purely descriptive referential attitudes toward actions that one intends and that one is about to carry out.[16] I can think of this (coming) raising of my arm just before I raise it. I believe that successful reference need not rely on a description like "the action that I am about to perform." It can rely on the competence routines and power that will issue in the act. A pastor might in marrying a couple say, "Let no man put this marital union asunder." At the time of the application of "this marital union" there may not yet be a marriage. Intentional control over the future can yield not purely descriptive, noninferential representational relations to an object or event. I think it reasonable to count such relations *de re*.

How much control is necessary? How far into the future can such attitudes reach? Perhaps answers will never be sharp. I think, however, that noninferential cognitive relations to future entities that are under reliable intentional control have an epistemic directness and an independence of context-free conceptualization that make them hard to exclude from the representational and epistemic phenomena that Russell opposed to knowledge by description.

A fourth candidate type of noncausal *de re* attitudes comprises certain cognitive relations to abstract entities. Russell counted grasp of universals as an acquaintance relation. I believe that this position resulted from his characteristic conflation of understanding with referential relations to objects. In predicating a concept of an object in the thought that man is a great pianist, we think the concept is a great pianist as part of thinking the

thought. Thinking the concept is not a representational relation to the concept. The thought is not about (*de*) the concept. The relation should not be counted *de re*.

There are, however, cases where comprehension and reference are inseparable. Attributions of thought normally contain specification of the thought in a canonical way that requires thinking the thought content as one ascribes it. When I think I (or you) believe that not all people are great pianists," I must think the representational thought content "not all people are great pianists" in the course of attributing it. I also canonically *name* or *designate* the representational thought content via a singular term, the that-clause.[17] My relation to the referent is not purely descriptive. It is true that the canonical specification is ability-general and conceptual. But the specification is backed by *comprehension* of the referent. Comprehension is at least as direct and noninferential, psychologically and epistemically, as perceptual relations. Comprehending a representational content is exercising an ability that is constitutively associated with inference. But it is not itself inferential or descriptive. I think that comprehension is a direct intellectual capacity that *when constitutively combined with reference* can make *de re* reference possible, when reference is carried out in this canonical way.[18] I think it clear that representational contents to which we bear these *de re* relations do not cause the reference. The *de re* representation is not empirical. It is intellectual, though *some* of the relevant *de re* thoughts are warranted empirically.

Canonical specification of simple natural numbers through numerals is also arguably *de re*. (I assume a realist attitude toward the numbers. Antirealists can form whatever conclusions they will.) We do not perceive the numbers. They do not cause our thought about them. Numerals in a canonical system contrast with nonmathematical descriptions ("the number of cats my sister has") or computationally difficult mathematical formulas. They enable one to relate any complex name by simple mechanical means to the simplest numerals. The *basic* elements of the system are repeated in combinations to form larger groups. These basic elements are like the indexical origins (or *de se* origins) of spatial or temporal frameworks. They are the starting points that we use, together with general operations, to specify other "points" (on the analogy to spatial locations or times) in the numerical system. Our ability to specify 1, 2, 3, 4, 5 . . . —certain among the smallest natural numbers—through simple words or noncomplex numerals has an epistemic primitiveness that is relevant in determining what should count as *de re*.

There is evidence that some abilities with small numbers are nearly universal among humans, despite differences in symbolic systems. For example, humans can determine correlations between images or perceptions of groups of objects, and these numbers very quickly, without counting or calculating. This ability is

widely studied in cognitive psychology under the rubric *subitizing*.[19] In fact, perceptual subitizing is common throughout the animal kingdom. Of course, the perceptual system computes, but these computations are modular. The *individual's* noninferential recognition of the number of a small group of items is approximately as immediate as any perceptual representation. Subitizing is not perception of abstract objects, the numbers. But in individuals who have an understanding of a numerical system, the primitive subitizing capacities join with conceptual abilities to support noninferential, noncomputational numerical assignments in thought to small groupings. These assignments are associated with noninferential conceptual ability to use canonical specifications of these numbers as bases for computations (that is, without representing these numbers as the products of computations). So the representation 2 is primitive—in contrast to compounds like the successor of 1 or 12.

These noninferential representational and applicational abilities are the basic elements in a great deal of mathematical knowledge. Resolution of computations into basic psychological and epistemic elements offers a ground for understanding effectiveness (or effective calculability), mathematical proof, and so on. Thus certain small natural numbers, though certainly specified conceptually, can be naturally associated both with immediate conceptually aided perception of groups as having those cardinalities, and with immediate (noncomputational) representation of numbers in pure, nonapplied arithmetic. I conjecture that it is reasonable to count representation of mathematical objects that is backed by such noninferential abilities of application and understanding as *de re* with respect to those objects.[20]

What can be immediately, noninferentially surveyed may vary with expertise and ability. What impresses me is that there is evidence that there are relatively sharp and universal boundaries between those number specifications that can and those that cannot be applied (or used in pure arithmetic) by ordinary people without counting.[21]

I have taken as key to the *de re–de dicto* distinction Russell's idea that *de re* states and attitudes involve a capacity for referring to entities that is essentially nondescriptive, noninferential, and epistemically immediate. Perception, perceptual belief, and perceptual memory provide a start toward understanding *de re* states and attitudes. I maintained that resting there would be to accept a narrow empiricist conception of our basic cognitive and representational capacities. I believe that we have *de re* representation *through understanding*, not just perception.

I outlined four capacities for referential representation that seem to go beyond the perceptual paradigm. All involve not purely descriptive representations of objects. All go beyond use of ability-general, purely descriptive representations. All are backed by epistemic capacities that are noninferential, immediate, nondiscursive.

Representation with certain indexicals and *de se* markers seems to be associated with a nondescriptive setting of the origins of representational frameworks.

Representation of mental states and events in reflective self-attributions is associated with a noninferential epistemic relation that is context-bound, singular, and not purely descriptive.

Representation of intended acts or objects over which one has control seems associated with a noninferential ability to know and represent them by nondescriptive context-bound singular means.

Canonical representations of understood representational contents and certain canonical representations of small natural numbers are candidates for *de re* status. Unlike the representations in the other cases, the relevant representations of these abstract entities are *ability-general* though semantically singular. The representations are fully conceptual.[22] Such representation occurs within canonical systems of designation that do not themselves rely on context-bound forms of reference. In these respects, reference here is significantly different from other *de re* reference. Still, the canonical system of representation is, at its bases or origins, intuitively nondescriptive. The basic canonical representations are also backed by noninferential, noncomputational modes of reference and understanding.

I accept Frege's point that we do not know the numbers through perceptual-like apprehension of them. We know them only through understanding arithmetical propositions. Here reference derives from propositional abilities, not from a subpropositional ability like perception. Still, comprehending thoughts that canonically specify the smallest natural numbers through numerals is essentially linked to a noninferential representational ability—the conceptualized successor of subitizing. This is recognition and application of numbers without calculation or description. It is recognition through singular understanding.

A similar point applies to our knowledge of thought contents. We do not know them through perceptual apprehension. We know them through reflexive, metarepresentational specification of what we discursively understand. The basic non-metarepresentational, discursive, competence understanding is a combination of applicational ability, attributional and recognitional ability, and inference. But metarepresentational understanding of content through canonical names is not description or inference. The ability to canonically name representational contents that we have a competence-understanding of is a nondescriptive, noninferential, nonattributional ability. And the ability to think, with understanding, about contents thus canonically named need not employ inference. Thoughts that exercise that ability are, I think, *de re*. The constitute another type of singular intellectual understanding.

I propose the following thesis: *A mental state or attitude is autonomously (and proleptically) de re with respect to a representational position in its representational content if and only if the representational position contains a representation that represents (purports to refer) nondescriptively and is backed by an epistemic competence to make noninferential, immediate, nondiscursive attributions to the res.* In sufficiently mature thinkers, exercise of this competence often constitutes knowledge. It can, however, reside in primitive, subpropositional perception or action, and in framework-setting *de se* markers in perception or action sets.

I have acknowledged many issues that challenge further reflection. I hope to have indicated that understanding *de re* phenomena is a project not only in the theory of reference, let alone belief-attribution. It is a project that probes fundamental epistemic and representational capacities that underlie what it is to have a mind.

NOTES

1. Section 5 of the original paper "Five Theses on *De Re* States and Attitudes" was entirely new, and was mostly written in 2003–4. The paper had benefited from comments at Syracuse University, Princeton University, and UCLA, especially a comment by Daniel Nolan. I also benefited from discussion with Louis DeRosset and Luca Struble.
2. Bertrand Russell, "Knowledge by Acquaintance and Knowledge by Description," in *The Problems of Philosophy* (1912; Oxford: Oxford University Press, 1982).
3. W. V. Quine, "Quantifiers and Propositional Attitudes," in *Ways of Paradox* (New York: Random House, 1966).
4. David Kaplan, "Quantifying In," in *Words and Objections: Essays on the Work of W. V. Quine*, ed. Davidson and Hintikka (Dordrecht: Reidel, 1969).
5. Cf. my "Belief *De Re*," *Journal of Philosophy* 74 (1977): 338–62, reprinted in my *Foundations of Mind* (Oxford: Clarendon Press, 2007). The point about separating linguistic phenomena from facts about *de re* attitudes is made in that article. The criticisms of Kaplan's use of the notions of denotation and vividness are also laid out in that article. *Denotation* is not explicitly contextual, or applicable to particulars, in his early work. I argued that the context-dependence of applications is key to *de re* cases. *Vividness* seems to me clearly unnecessary to *de re* states or attitudes, even for *autonomous* thought. Vividness is, in my view, an empiricist red herring. Many *de re* attitudes are not vivid, and many vivid attitudes are not *de re*. Vividness does not constitutively bear on the character of a representation's relation in being of (*de*) a subject matter (*re*). There are straightforward counterexamples to vividness as a necessary condition. One can form a perceptual belief of an object (or other particular), and not register or remember enough of its features to have a vivid representation. Such beliefs are common, and even basic to action. They need not even be conscious or driven by unconscious attention. Clearly one can have a *de re* belief of an object (or other particular) in such cases. The epistemic relation is very direct; it is only partly conceptualized; and it is context-dependent. Moreover vividness is irrelevant to *de se* or egocentric indexes, which seem clearly to be subspecies of *de re* reference. (The distinction between *se* and *res* is not ontological. *Se*'s are *res*'s. The distinction lies in the mode of presentation.) In effect, I criticize the *Of-ness* condition—Kaplan's third condition on *de re* thought—in section 5 of this paper. The basic idea of reference that is backed by an immediate nonconceptual representational and epistemic capacity, which grounds my present positive account, is initially developed in "Belief *De Re*."

6. Cf. my "Postscript: Belief *De Re*," in my *Foundations of Mind*.
7. Cf. note 48 of my "Five Theses on *De Re* States and Attitudes," in *The Philosophy of David Kaplan*, ed. J. Almog and P. Leonardi (New York: Oxford University Press, 2009).
8. The main idea of this argument derives from Peter Strawson's brilliant duplication argument, *Individuals* (1959; Garden City, N.Y.: Doubleday, 1963), chapter 1.
9. Cf. Timothy Williamson, "Is Knowing a State of Mind?," *Mind* 104 (1995): 533–65. It would be a mistake to construe the view that I develop in what follows, and elsewhere, as regarding seeing as *analyzable* into visual representation and causation.
10. For an extensive discussion of this issue, see my "Disjunctivism and Perceptual Psychology," *Philosophical Topics* 33 (2005): 1–78.
11. Cf. "Disjunctivism and Perceptual Psychology."
12. For earlier statements of this view, see "Belief *De Re*." Note that knowings are not the only *de re* propositional phenomena under the strict usage. One can have a *de re* belief that is successfully referential and meets all other conditions on being *de re*, which nevertheless fails to count as knowledge. Suppose that one is looking directly at an object and that one forms a true belief about it. Suppose that one has good reason to doubt that there is really an object there. For example, suppose that one is in a psychological experiment where one has good reason to believe that one has been fooled frequently. Suppose that one ignores this good reason. Then one lacks knowledge. But one has a *de re* belief of the object. I have not been able to think of any purely visual states that are strictly *de re*, and therefore successfully referential, which are not also seeings.
13. What should we say about uses of names of individuals that one has never perceived: "Aristotle" or "Nineveh"? Kripke and Donnellan showed that such names can refer even though their user lacks descriptions sufficient to fix their referents. There is a directness and noninferentiality to the understanding of such names that make it kin to the perceptual paradigm, despite the poverty of information and distance in history. I believe that thoughts making use of such names can be considered *de re*. They have a special status, however. They are *de re* only nonautonomously—only through reliance on others.
14. Cf. my "Reason and the First Person," in *Knowing Our Own Minds: Essays on Self-Knowledge*, ed. Smith, Wright, and MacDonald (Oxford: Clarendon Press, 1998), and "Memory and Persons," *Philosophical Review* 112 (2003): 289–337.
15. Cf. "Memory and Persons," especially section 5.
16. This is perhaps a distant analogue of intellectual intuition, attributed by the medievals to God—an ability to intuit objects and thereby create them. Cf. note 3 of my "Five Theses on *De Re* States and Attitudes." We do not create by intuiting. But the intuition may be guided by the creation—the forward-looking causal power. These cases were interestingly discussed by G. E. M. Anscombe, *Intention* (Oxford: Blackwell, 1957), though not by reference to the notion of *de re* states.
17. A special feature of these (e.g., that-clause) canonical content-names is that mastering them requires mastery of the named or referred-to contents themselves. So there is, in a certain way, an even more intimate relation between this sort of canonical name and its named contents than there is between a canonical number name like "2" and the number. Here one literally must understand the denotation (the customary content or sense) before grasping the content of the name or individual concept that canonically names it. Grasp of the denotation or referent precedes grasp of the content that represents it. For further discussion, see my "Postscript: Frege and the Hierarchy," in my *Truth, Thought, Reason: Essays on Frege* (Oxford: Clarendon Press, 2005).
18. A more empirical case involves thought about color types represented in perception or memory by a color-sighted person. The color type does not cause the thought. It has no causal power. Only instances of the color-type can cause anything. One might think of the color type *without remembering any instance*. There does remain some causal relation back

to instances in the learning history. But it is implausible to think that any given instance caused this occurrence of thought. Moreover one might imagine a color-shade even though one never saw an instance. One might imagine the color while one is thinking of it. The image itself does not have the color. Here is *de re* thought without direct causal connection. I think that one could think *de re* of the color without imagining it at all. The *power* to imagine it seems arguably sufficient. I am indebted to Mark Johnston for the idea of this note, though not the details.

19. Klein and Starkey, "The Origins and Development of Numerical Cognition: A Comparative Analysis" in *Cognitive Processes in Mathematics*, ed. Sloboda and Rogers (Oxford, 1987); Karen Wynn, "Psychological Foundations of Number: Numerical Competence in Human Infants," *Trends in Cognitive Sciences* 2 (1998): 296–303; Whalen, Gallistel, and Gelman, "Nonverbal Counting in Humans," *Psychological Science* 10 (1999): 130–37; Uller, Carey, Huntley-Fenner, and Klatt, "What Representations Might Underlie Infant Numerical Knowledge?," *Cognitive Development* 14 (1999): 1–36. Subitizing occurs in lower animals that lack propositional attitudes. I believe that subitizing does not itself make reference to numbers. It certainly occurs phylogenetically earlier than even the most primitive mastery of the arithmetical system of numbers. But I believe that it is a source of immediacy in arithmetical cognition.
20. Kaplan, "Quantifying In," section 8, discusses canonical names, calling them "standard names." He counts quotation names and numerals as examples. He centers on their modal properties and does not elaborate their epistemic properties, though he compares his vivid names to standard names in section 11. I want to emphasize that I do not hold that all uses of canonical names are associated with *de re* attitudes. Uses of large numerals commonly are not. The key issue concerns the immediacy, the noncomputational and noninferential character, of the individual's representational and epistemic capacity that backs use of the name. Thus I think that, normally, only uses of very small numerals yield *de re* attitudes. I believe that uses of canonical names for noncomplex representational contents and for relatively simple combinations of them are candidates for yielding *de re* attitudes. For example, representational contents of that-clauses containing obliquely occurring expressions that can be comprehended without exercise of nonmodular computation can involve *de re* representation. Here again see my "Postscript: Frege and the Hierarchy." For a fuller discussion of my particular view of *de re* thought about small natural numbers, see my "Postscript: Belief *De Re*."
21. The third and fourth types of nonempirical *de re* cases raise interesting questions about reference to the future. Many references to objects in the future do not support *de re* attitudes. Reference through complete definite descriptions is, of course, an example. Equally, names introduced in terms of context-free definite descriptions ("Newman 1 and ½"—introduced as referring to the first person born in 2050) are examples. The same can be said about indexically infected descriptions like "the 754,573,211,467th day after today." Such a description can support an attitude that is *de re* with respect to today, but not with respect to the 754,573,211,467th day after today. The reason is, again, not absence of a causal relation. It is that the relation to that future day is, apart from the indexical anchoring in today, *entirely* dependent on ability-general representation.

    What are we to say about attitudes using applications of the indexical tomorrow? Kaplan denies attitudes *de re* status with respect to positions in which tomorrow occurs. He appears to base this denial on our lack of causal relation to future days. Cf. David Kaplan, "De Re Belief," in Presidential Addresses of the American Philosophical Association, ed. Richard T. Hull (forthcoming). This may signal a different conception of *de re*. From my perspective, a denial of *de re* status based on absence of a causal relation to the *re* would not be a good reason. We have seen counterexamples to this principle from other quarters. The indexical tomorrow depends for its referential workings on a relation to today. It

refers to the day after today. In this respect, it is like the description of a future day that uses a huge number. On the other hand, often we can have virtually as direct an epistemic and representational relation to tomorrow as we do to today—if we are thoroughly centered on our plans for tomorrow, for example.

I believe that indexicals like tomorrow can yield states and attitudes that are *de re* with respect to future times. Their being single words suggests that no inference need be made in their application. Their being single words is not decisive, of course. One could coin a one-word indexical for the 754,573,211,467th day after today. Because most of us cannot parse or apply the number noninferentially, such an indexical could not be used to think *de re* thoughts with respect to the relevant day. What enables tomorrow to effect *de re* reference is that the day is often cognitively and practically at hand. This is partly because the day bears a numerical relation to today which itself does not require inference or counting for its application. It is partly because we have power over our acts in the immediate future. The issues again invite further reflection—on another day.

22. This point constitutes a departure from one of the lines on *de re* attitudes that I took in "Belief *De Re*." For a criticism of that line and further motivation for the line taken here, see "Postscript: Belief *De Re*."