

FROM CONSCIOUSNESS TO SELF-CONSCIOUSNESS

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Summary

The road that human beings traverse from infancy to maturity runs from consciousness to self-consciousness. It begins with a human newborn who is conscious, whose waking state is one of awareness, and ends with the same entity who is self-conscious, who can conceive of herself from the first person. The newborn has no concepts at all, and the mature person has a wealth of concepts, including a self-concept. I shall offer a sketch of this road from (nonconceptual) consciousness to (conceptual) self-consciousness. Along the way, I shall argue that, pace Bermúdez, (Bermúdez 1998, 45) we neither need nor have “nonconceptual first-person contents.”

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Persons, if I am right, essentially have first-person perspectives. It follows that there is no moment that a person (whether infant or adult) exists and lacks a first-person perspective. A first-person perspective is a *perspective* because it is a view on the environment from a particular spatial and temporal orientation; it is *first-personal* because the orientation is from the subject's own point of view. However, a first-person perspective can be manifested in two ways: as rudimentary or as robust. ‘Rudimentary’ and ‘robust’ are two phases of a first-person perspective. I understand mere consciousness in terms of a rudimentary first-person perspective, and self-

consciousness in terms of a robust first-person perspective. So, I take the road from infancy to maturity to be a road from having a rudimentary first-person perspective to having a robust first-person perspective.

First, a preliminary remark: Elsewhere, I have developed an ontology of persons, according to which persons are constituted by human animals, but are not identical to the animals that constitute them. (Baker 2007; Baker 2000) However, that ontological view of persons is not required for the view that I am setting out here. One could accept my view of the trajectory of an individual's progress from consciousness to self-consciousness and hold that, all along, the individual is identical to an animal. I reject the animalist suggestion that you are identical to an animal in part because I think that technology has shown that your organs may be replaced with bionic parts until there remains no organism—yet you could still exist. So, if I am right, you are not identical to an animal. Nevertheless, animalists can still accept the account of the road from consciousness to self-consciousness that I give here and reject the ontology.

Now let us turn to the distinction between rudimentary and robust first-person perspectives, in terms of which I understand the distinction between consciousness and self-consciousness.

1. *Rudimentary first-person perspectives*

A person comes into existence when a human organism—perhaps around birth—develops to the point of supporting a rudimentary first-person perspective. At that point, according to my ontology, a new entity—a person, constituted by an organism—comes into existence. Like everything else that we know of (from solar systems to trees to mobile phones to paintings), a person comes into existence gradually. There is no precise moment after which a person exists and before which a person does not exist.

When a person comes into existence, on my view, there is an entity with a rudimentary first-person perspective. Here are three important features of a rudimentary first-person perspective: (i) It is a perspective. It is not an object, but a dispositional property that a person has essentially and is manifest at different times when the person is active. To have a perspective is to perceive the world from a particular spatiotemporal location. (ii) It is first-personal, but it does not explicitly refer to a subject (first-personally or otherwise); it is simply the default location of the subject—the location from which the subject perceives the environment, the origin of a

perceptual field. (iii) It is independent of linguistic or conceptual abilities, as I shall argue.

A human infant is a person, and hence has a first-person perspective, but only a rudimentary first-person perspective. As a person matures and learns a language, her rudimentary first-person perspective develops into a robust first-person perspective, the source of all forms of self-consciousness. A robust first-person perspective is the capacity to conceive of oneself in the first-person, *as* oneself—as an agent and a subject of experience. Unlike a rudimentary first-person perspective, which does not require having concepts, a robust first-person perspective is a conceptual capacity, which, I shall argue, depends on language.

Let us consider, first, rudimentary first-person perspectives in more detail. An entity *x* has a rudimentary first-person perspective if and only if: (i) *x* is sentient; (ii) *x* has intentionality;¹ (iii) *x* can imitate.² There is ample psychological evidence that human infants have rudimentary first-person perspectives. (i) They are clearly sentient. (ii) They have intentionality: They display goal-directed behavior—e.g., escape behavior (head retraction and interposing hands between face and object) in the presence of a looming person. (Bower 1974, 84)³ (iii) They imitate: They naturally imitate tongue protrusions and mouth openings as young as forty-two minutes old. “These data directly demonstrate that a primitive capacity to imitate is part of the normal child’s biological endowment.” (Gopnik, Meltzoff, and Kuhl 1999, 30)

These latter two components of a rudimentary first-person perspective—intentionality and the ability to imitate—imply that beings with rudimentary first-person perspectives are, in Tyler Burge’s terms, not just sensors, but perceivers—beings with states having “representational con-

1. Intentionality is not mere sentience. What intentionality adds to sentience is minimal agency, goal-directed behavior (Baker 2011a), which is more flexible than just sensing and responding.

2. The reason that I add imitation is that I think that a first-person perspective (and hence consciousness) is more than mere sentience and intentionality, and all the animals to whom I would intuitively attribute a first-person perspective are to some degree imitative.

3. With goal-directed behavior come veridicality conditions. ‘Representation’ is a generic term that does not indicate the specific ways in which representation is effected. Perception, belief, desire, and intention are “representational in the sense that they are about something, indicate a subject matter as being a certain way, and (constitutively and non-trivially) have veridicality conditions.” (Burge 2010, 27) We need not suppose that nonhuman animals represent themselves in order to explain their behavior. For another argument that we need not ascribe first-person reference to explain the actions of “simple creatures,” see (O’Brien 2007, 59–65).

tents that can be veridical or non-veridical.”⁴ (Burge 2010, 74) Perceivers have “capacities systematically to represent a given particular or attribute as the same—despite significant variations in proximal stimulation.” These constancies are “explanatorily associated with systematic filtering mechanisms that yield sensitivity to a single environmental particular or attribute.” (Burge 2010, 274) So, beings with rudimentary first-person perspectives can represent their environments.

Rudimentary first-person perspectives bind persons to the seamless animal kingdom. Chimpanzees—with which human beings share 98.6% of their genetic material (Povinelli 2004)—chimpanzees and other higher animals, also have rudimentary first-person perspectives (consciousness). They are sentient: Descartes notwithstanding, they feel pain if struck hard. Their behavior exhibits intentionality: Chimpanzees share food with conspecifics. They can imitate: Chimpanzees learn to groom by imitation. In contrast to more broadly shared properties like having a heart, the properties in virtue of which an organism has a rudimentary first-person perspective are what we might call ‘person-making’ properties. But in the case of a nonhuman animal, the development of a rudimentary first-person perspective is *not* the coming-into-being of a new entity—a person.

If persons as well as nonhuman animals have rudimentary first-person perspectives, what distinguishes a person from an animal? The answer is that only persons develop robust first-person perspectives. Rudimentary first-person perspectives have different roles in human and nonhuman animals. In nonhuman animals, a rudimentary first-person perspective has a biological role in survival and reproduction; in human animals, it has an additional role in bringing into existence a person who, in normal circumstances, will develop a robust first-person perspective. Moreover, persons have first-person perspectives essentially; nonhuman animals have first-persons—and nothing but rudimentary ones at that—only contingently.⁵

Almost twenty-five years ago, Gordon Gallup started a cottage industry of mirror experiments with primates and young humans. (Gallup 1977) He found that chimpanzees (though not monkeys) could be taught to recognize themselves in mirrors. The acquisition of this recognitional ability

4. (Burge 2010, 74) I am following Burge in using the vexed terms ‘representation’ to apply to a distinctly psychological and linguistic kind. (Burge 2010, 38)

5. The reason that it is only contingent that nonhuman animals have rudimentary first-person perspectives is that a fetal pig is a pig before it develops a rudimentary first-person perspective. Of course, a pig requires a rudimentary first-person perspective to navigate the world.

by the chimps required human intervention; the chimps so trained did not pass on the newfound recognitional ability to their offspring. Nor does recognition require a self-concept or any kind of conceptual awareness. Perhaps this recognitional ability is a step toward self-consciousness, but it is far from a robust first-person perspective—which requires a self-concept. Chimpanzees, even those “mirror trained,” have only rudimentary first-person perspectives. Human persons with robust first-person perspectives, by contrast, can evaluate their desires, change their habits, and generally be moral beings.

To sum up: Human infants and higher nonhuman animals are conscious without being self-conscious: Lacking self-concepts, they have rudimentary, but not robust, first-person perspectives. Typically, human infants (very young persons) develop into mature persons with robust first-person perspectives; nonhuman animals do not develop robust first-person perspectives.

2. *Robust first-person perspectives*

Let us now turn to the notion of robust first-person perspectives in greater detail. A robust first-person perspective is a conceptual capacity; it is the ability, not just to recognize oneself as distinct from everything else, but to conceive of oneself as oneself. Evidence that one has this capacity is found in language. A mature human person with a robust first-person perspective has a self-concept, by means of which she can attribute to herself first-person reference. A person with a robust first-person perspective not only can refer to herself in the first-person (‘I am a movie star’); but also she can attribute to herself first-person reference (‘I wish that I were a movie star’).⁶ In greater detail:

If I say, “I am happy,” I refer to myself in the first person; if I say, “I am glad that I am happy,” I attribute to myself a first-person reference:

6. On my view, it is not essential to being a human person that one actually have a robust first-person perspective. (If it were, human babies wouldn’t be persons.) Although robust first-person perspectives are what make persons unique, what is essential to being a person is to be of a kind that typically develops a robust first-person perspective, and to have a first-person perspective (rudimentary or robust). So, a severely autistic human being who never develops a robust first-person perspective is still a person in virtue of having a rudimentary first-person perspective and of being of a kind that typically develops a first-person perspective. A nonhuman animal that has a rudimentary first-person perspective is not a person because he is not of a kind that develop robust first-person perspectives.

With the first occurrence of ‘I’ in ‘I am glad that I am happy’, I refer to myself; with the second occurrence of ‘I’, I attribute to myself a first-person reference. Following Castañeda and Matthews, I will mark the second occurrence of “I” with an asterisk; I will call any thought expressed by a first-person sentence with a psychological or linguistic main verb and an embedded clause with a first-person pronoun an “I*-thought.”⁷ The ‘I*’ expresses a self-concept by which one conceives of oneself as oneself without having to identify oneself by a name, description or demonstrative. A self-concept is the vehicle by means of which one thinks of oneself from a robust first-person perspective. An I*-sentence expresses such an I*-thought.

I*-thoughts are guaranteed to satisfy “Russell’s Principle”, on any reasonable interpretation: “in order to be thinking about an object or to make a judgment about an object, one must know *which object* is in question—one must *know which* object it is that one is thinking about.” (Evans 1982, 65) In the case of I*-thoughts, the object that one is thinking about is oneself conceived in a first-person way. A person who entertains an I*-thought cannot be mixing up herself and someone else; if one has an I*-thought, one cannot mistakenly believe that she is referring to someone other than herself. The ‘I*’ is important since there are many well-known cases of thinking of oneself without realizing that it is oneself* whom one is thinking of.

For example, Ernst Mach famously told the story of getting in at one end of a bus and seeing a shabby-looking man at the other end. Mach thought to himself, “That is an unkempt person.” Unbeknownst to Mach, he was looking at himself in the bus mirror; so, he did not realize that he* was the unkempt person: He was referring to himself without realizing that it was himself* he was referring to.⁸ Soon, Mach realized that it was himself whom he was looking at. It was only then that he was able to say, “I am that unkempt person.”⁹ (Mach 1949, 4n)

7. Hector-Neri Castañeda introduced ‘he*’, and Gareth B. Matthews extended the ‘he*’ from sentences with a third-person subject to ‘I*’ for sentences with a first-person subject. Castañeda studied phenomena expressed by sentences like ‘The editor believes that he* is F.’ (Castañeda 1967; 1966) Gareth B. Matthews extended the discussion to phenomena expressed by ‘I think that I* am F.’ (Matthews 1991)

8. ‘He*’ is an analogue of ‘I*’: ‘Al said that he* was wise’ is not true unless Al said, “I am wise.” (Castañeda 1967; Castañeda 1966)

9. There are numerous examples of this kind. See (Castañeda 1967; Castañeda 1966); (Lewis 1979); (Baker 1981); (Kaplan 1989); (Perry 2002, 202; Castañeda 1967; Castañeda 1966; Matthews 1991) (Baker 1981a).

When one has an I*-thought or asserts an I*-sentence, one exhibits a conceptual ability, a robust first-person perspective. This does not imply that there is a special entity “the self”. Let me emphasize: I*-thoughts need no recourse to any peculiar object like a self, or a soul, or an ego. What one thinks of from a first-person perspective is oneself, an embodied person. My I*-thoughts refer to me, a person—the very same entity that you refer to by saying, “Lynne Baker.” All I*-thoughts are manifestations of robust first-person perspectives.

There are a couple of features of I*-thoughts worth noticing: First, they are not limited to “Cartesian” thoughts about what one is thinking; they include mundane thoughts like “I wish that I* were in the movies.” Second, there is no adequate non-first-personal expression of I*-thoughts. Neither the sentence, “I believe that I* live in New England” (uttered by me) nor the sentence “Tom believes that he* lives in New England” is made true by my believing that LB lives in New England, nor by Tom’s believing that Tom lives in New England; neither is an instance of “x believes that x lives in New England” made true by NN’s believing that NN lives in New England. “Tom believes that he* lives in New England” is true only if Tom would express his belief in the first person: I live in New England. Neither “he*” nor “I*” can be replaced by a variable, or by any third-person construction. No sentence that contains an occurrence of “he*” or “I*” can be true in a wholly third-personal world lacking first-person reference.

One has a robust first-person perspective just in case one has a “self-concept” (i.e., just in case, one can refer to herself without identifying herself by means of any third-personal device.) Newborn human beings, with only rudimentary first-person perspectives, have no self-concept, no idea of oneself (‘me’) until the middle of the second-year. (Michael Lewis 1994, 22) Until the idea of ‘me’ emerges, infants are not capable of generating evaluation of their own actions. (Kagan 1981).

The acquisition of a self-concept makes possible a number of further abilities. To name a few: One can realize that one* is an agent; one can reflect on one*’s motives; one can take responsibility for what one* does; one can recognize that one* is the subject of experience; one can change one*’s habits in light of rational assessment of one*’s goals; one can have a life of moral significance; one can have an inner life; one can conceive of oneself as having a past, some of which is accessible to memory, and as having a future, part of which is accessible to intention. One can make a vow, change one’s name, commit perjury. The list seems endless. These

abilities—made possible by our robust first-person perspectives together with other conceptual abilities—are unique (as far as we know) to human persons.

I have now explained rudimentary and robust first-person perspectives, the first as nonconceptual and the second as requiring a self-concept. Now I shall sketch an account of how people get from one to the other.

3. *Language and the acquisition of concepts*

How does a person progress from a (nonconceptual) rudimentary first-person perspective to the full self-consciousness of a (conceptual) robust first-person perspective? A baby is born with the biological equipment bestowed by natural selection; then culture adds another layer to development. Human infants are born with perceptual systems, but must be taught to speak. Learning a language ushers in an explosion of the number and complexity of thoughts that one can entertain.¹⁰ Let the word ‘thoughts’ refer to any mental states with propositional content—beliefs, hopes, fears, desires, intentions and so on. Thoughts are individuated by content, where the content of a thought is determined by the concepts that are deployed in the ‘that’-clauses of their attributions.¹¹

Concepts are individuated by their application conditions in various possible circumstances (or possible worlds, if you prefer). Application conditions determine what falls under the concept. If there is some x such that concept C applies to x and concept C' does not apply to x , then C and C' are distinct concepts. So, application conditions determine the identity

10. I disregard the language-of-thought hypothesis since *entertaining* a thought (as opposed to merely thinking that p) is a phenomenon at the level of conscious awareness; it requires a natural language. If there is a language module in the brain for a natural language, it is not at the level of entertaining thoughts, but at the level of implementation. For more on the distinction between thinking and formulating a thought, see (Malcolm 1972).

11. This notion of concept is a philosopher’s notion. Cognitive Scientists are concerned with the different cognitive processes (e.g., induction, categorization) that may use concepts. Some cognitive scientists go so far as to reject the notion of concepts for science at all; concepts divide into distinct kinds (e.g., prototypes, exemplars, theories), and the different kinds of concepts have little in common and are used in distinct cognitive processes. The different kinds of concepts are too heterogeneous to pick out a natural kind and hence are subject to elimination. (Machery 2010) However, if we individuate concepts in the way that I suggest, we may take prototypes, exemplars and theories to concern the *implementation* of concepts. If we do this, we may maintain the unity of higher-level concepts along with the heterogeneity of their implementations. (Edwards 2011)

of concepts, and the identity of concepts, in turn, determines the identity of thoughts of which the concepts are constituents.

In order to have a thought containing a particular concept, one must have the concept. To have a particular concept, one must be able to apply it correctly (much of the time). (Even empty concepts like *unicorn* may be applied correctly—in linguistic contexts in which mythical beasts are being considered, or in pictorial contexts of drawings of small horses with horns on their foreheads.) A concept definitely applies to some things and definitely does not apply to other things. Complete mastery of application conditions is not required in order to have a concept—just some understanding of the conditions and consequences of application. (Burge 1979) Indeed, we have many, many thoughts made up of concepts of which we have only limited understanding: you may believe that there is dark matter, or that the fugue was popular in the 18th century without complete mastery of the concept *dark matter* or the concept *fugue*. So, one may have a concept (and hence thoughts containing that concept) without complete mastery of the application conditions of the concept. Now, letting ‘X’ range over thinkers, say:

X possesses a concept C if and only if (i) X is able to apply C correctly in a significant range of cases; and (ii) X has some (perhaps partial) understanding of C’s conditions and consequences of application.

In order to entertain a thought that has a concept C as a constituent, one must possess the concept C in the above way.¹² In order to apply concept C correctly (and hence in order to possess the concept C), one must learn a language. It is only in learning a language, that one can be corrected. In the absence of others to correct a learner, there is no difference between correct and incorrect use of a word or between correct application and misapplication of a concept. (I find Wittgenstein entirely convincing on this point.) So, in learning a language, one acquires concepts. As one acquires more concepts, there are more and more kinds of thoughts that one can have.¹³

12. My notion of having a concept deliberately collapses Peacocke’s distinction between attribution conditions and possession conditions of a concept: On my view, an attribution of a concept C to X is correct if and only if X satisfies its possession conditions of C. See (Peacocke 1992).

13. Does *every* thought presuppose language? Every thought that one is conscious of having presupposes language. I do not think that much is understood about nonhuman animal thought,

Intuitions about the role of language in conceptual thought are bolstered by experimental evidence. Recently, there has been a significant amount of empirical evidence that language shapes thoughts, and that what and how a person thinks depends on what language one speaks.¹⁴ (Boroditsky 2001; Boroditsky 2011) Studies have shown that people from different linguistic communities think differently about time, about space, and about agency. (Boroditsky 2011) Teach a child new color words and she can make new discriminations. It has long seemed clear that a scientist looking at an electron microscope sees an electron where the child sees a dot. Now there is solid evidence of this phenomenon.

Striking studies show that bilingual people's preferences change depending on which language they are thinking in. Arabic-Hebrew bilinguals, given implicit-association tests, rate Jews more highly when the tests are given in Hebrew than when they are given in Arabic. (Danziger and Ward 2010) In another study of bilinguals that had similar results for English-Spanish bilinguals and French-Arabic bilinguals, the authors concluded that the "effects of language on elicited preference were large (mean $d > .7$), providing evidence that preferences are not merely transmitted through language but also shaped by it." (Ogunnaike, Dunham, and Banaji 2010, 999)

According to Lera Boroditsky, a leader in this area of study at Stanford, "The past decade has seen a host of ingenious demonstrations establishing that language indeed plays a causal role in shaping cognition. Studies have shown that changing how people talk changes how they think." She goes on to say that "there may not be a lot of adult human thinking where language does not play a role." (Boroditsky 2011, 65)

Taking a cue from this line of research, I want to hypothesize more generally that the range of thoughts that one is able to entertain is bounded by the range of concepts expressed by the language(s) one speaks. Even without a language, one can distinguish different states of the immediate environment. As one learns a language, one acquires concepts that enable one to think and reason about anything that one has a concept of. Plasma physicists can have myriads of thoughts that are simply not available to me. To have such thoughts, I would have to learn the language—and hence acquire the concepts—of plasma physics.

but any thought that a thinker can express obviously presupposes language.

14. The claim is not that language shapes animal thinking. As one researcher said, "Dogs have dog thoughts." (quoted in (Thomas 1993; Grandin 2006, 200)

4. *How to acquire a self-concept*

Now, to be able to think I*-thoughts, and hence to have a robust first-person perspective, one must have a self-concept. How does one acquire a self-concept? The answer is that in learning a language, one acquires indefinitely many empirical concepts—concepts of one’s needs and wants (*hungry, milk*), of family members (*mama*), of features of the environment (*bed, car, large*) and so on. As the concepts accumulate, one begins to learn concepts for one’s mental states. (“Do you see the dog?”) Around the age of two, there’s a tipping point and one responds to “Make a wish” by, for example, saying, “I wish that I* had a truck.” When one makes such an assertion—not just produces parrotlike sounds—one has a robust first-person perspective.

That one cannot have a self-concept unless one has a battery of empirical concepts is, I think, a conceptual truth. This is so, because a self-concept is a formal concept; it simply signals attribution of a first-person reference to oneself. Attribution of a first-person reference to oneself is not a stand-alone item. An I*-thought has the form, ‘I ϕ that I* am(were) F,’ where ‘ ϕ ’ ranges over psychological and linguistic verbs and ‘F’ ranges over properties. One cannot think an I*-thought unless one has a range of concepts expressing properties with which to fill out the I*. Thoughts about oneself have as constituents not only self-concepts, but also empirical concepts. Consider the thoughts expressed by ‘I’m afraid that I’ll be alone’ or ‘I wish that I could go to the beach’. A thinker of such thoughts must have not only a self-concept, but the concepts of being afraid or wishing and the concepts of being alone or the beach.¹⁵

One does not have a self-concept unless one has an abundance of empirical concepts to apply. One cannot make a self-attribution unless there is something that one attributes to oneself*, and what one attributes to oneself* is expressed by empirical concepts. So, it is not surprising that the process of acquiring a self-concept presupposes the acquisition of many empirical concepts.¹⁶ Just as learning a language is part of a natural developmental process, so is the acquisition of a self-concept.

15. Someone may object that one cannot acquire psychological predicates without already having a robust first-person perspective. I think that this is just misbegotten Cartesianism (Baker 2011b), and that there is ample evidence to the contrary. ‘Sees the ball’ is a psychological predicate. Toddlers who do not yet have robust first-person perspectives are able to comprehendingly assert ‘She sees the ball’ or even ‘I see the ball.’

16. As the examples (as well as evolutionary biology) suggest, we are social beings. So, it is no surprise that concepts should be given an “externalist” treatment. (Baker 2007b; Baker 2007c)

5. *The difference between 'I' and 'I**

The difference between 'I' and 'I*' is not in reference. They both refer to the speaker or thinker: a person. Nevertheless, there is an important difference between the two first-person pronouns. 'I*' entails that the speaker or thinker has a self-concept, but 'I' does not. *Making* a reference to the speaker by means of 'I' (or otherwise) is different from *attributing* a reference to the speaker by means of 'I*'. (Baker 1981b)

As we saw in the case of Mach, one can *refer* to oneself without realizing that it is oneself* whom one refers to, but one cannot *attribute* a first-person reference to oneself without realizing that it is oneself* to whom she attributes the first-person reference.¹⁷ The difference between referring to oneself and attributing to oneself a first-person reference (by means of 'I*') is an important linguistic difference that mirrors the important difference between a rudimentary and a robust first-person perspective.

Several philosophers have argued that the use of 'I' is eliminable, at least in soliloquy.¹⁸ For example, Peter Geach said that the use of 'I' in "soliloquies ... is redundant and has no special reference; 'I am very puzzled at this problem' really says no more than 'This problem *is* puzzling.'" (Geach 1957, 120) And Moritz Schlick attributed to Lichtenberg, "the wonderful eighteenth century physicist and philosopher," the view that "Descartes had no right to start his philosophy with the proposition 'I think', instead of saying, 'it thinks.'" (Schlick 1949, 166) Similarly, Russell said that Descartes's 'I think' could be paraphrased as 'there is thinking.' (Russell 1945, 567)

Whether or not 'I' is eliminable in simple first-person sentences, 'I*' is not eliminable from sentences where the content clause expresses a self-concept: 'I regret that I* find this problem puzzling.' Unlike simple I-sentences, there is no third-person paraphrase of I*-sentences, because in I*-sentences, the speaker attributes a first-person reference to himself as himself*. So, the difference between 'I hope that Smith survives the war' (said by Smith) and 'I hope that I* survive the war' also said by Smith is

17. The point here is that self-reference (by means of 'I' or otherwise) does not entail having a robust first-person perspective, but attributing self-reference to oneself does entail having a robust first-person perspective.

18. John Perry argued that 'I' cannot be eliminated from any context, but my point here is that even if 'I' were eliminable, 'I*' would not be. (Perry 1979) 'I*' occurs in the content clause. A sentence that attributes to the speaker a first-person reference would not be true unless there were a first-person reference.

crucial: they are not equivalent; neither can be substituted for the other *salva veritate*. (Baker 1998; Baker 1981a)

The difference between 'I' and 'I*' provides linguistic evidence for the distinction between rudimentary first-person perspectives (that merely conscious beings have) and robust first-person perspectives (that self-conscious beings have).

6. *A paradox of self-consciousness?*

José Luis Bermúdez has formulated what he calls 'the paradox of self-consciousness', which consists of six incompatible propositions (Bermúdez 1998, 24):

1. The only way to analyze what is distinctive about self-consciousness is by analyzing the capacity to think 'I'- thoughts.
2. The only way to analyze the capacity to think a particular range of thoughts is by analyzing the capacity for the canonical linguistic expression of those thoughts (the Thought-Language Principle).
3. 'I'-thoughts are canonically expressed by means of the first-person pronoun.
4. Mastery of the first-person pronoun requires the capacity to think 'I'-thoughts.
5. A noncircular account of self-consciousness is possible.
6. Mastery of the semantics of the first-person pronoun meets the Acquisition Constraint: If a given cognitive capacity is psychologically real, then there must be an explanation of how it is possible for an individual in the normal course of human development to acquire that cognitive capacity. (Bermúdez 1998, 19)

Bermúdez resolves the paradox by constructing a nonstandard theory of content—one that allows “nonconceptual first-person contents.” Hence, he dissolves the paradox by rejecting proposition 2. Without taking on Bermúdez's specific arguments, I want to offer a simpler way to avoid the paradox: We need not revise the standard notion of content as what is in the 'that'-clause of a linguistic or psychological ascription—e.g., 'believes that' or 'says that'. There is a less radical way around the paradox.

Bermúdez says that the paradox is insoluble “if it is assumed that the conceptual and linguistic forms of self-consciousness are the only forms.” (Bermúdez 1998, xi) As I have just argued, I think that the conceptual and linguistic forms of self-consciousness are the only forms of

self-consciousness, but not the only forms of consciousness simpliciter. On my view, only self-conscious beings, never merely conscious beings, have a self-concept expressed *in the content clause* (in the standard sense of ‘content’) of ascriptions. With this distinction between consciousness and self-consciousness, between ‘I’ and ‘I*’, the paradox is avoided without rejecting the traditional view of content.

To see that Bermúdez does not make this distinction between consciousness and self-consciousness, note that the only way he sees to avoid the paradox is to ascribe “nonconceptual first-person contents.” Although he rejects the classical view of content that I accept, he does not say what, on his view, content *is*. He explains that a *nonconceptual* content is one that can be “ascribed to a thinker even though the thinker does not possess the concepts required to specify that content.” A nonconceptual first-person content is characterized as a nonconceptual content that “can only be specified by means of the first-person or indirect reflexive pronouns.” (Bermúdez 1998, 49)

Pairing ‘the first-person *or* indirect reflexive pronouns’ here indicates a conflation of ‘I’ (first-person pronoun) and ‘I*’ (first-person indirect reflexive pronoun). I*-thoughts, as I explained, require manifest a robust first-person perspective. Toddlers who have only rudimentary first-person perspectives may say, “I want milk” (or “Me want milk”) without being able to express any I*-sentences. The difference is, as I have argued, significant.

A conscious being need not have mastered use of the first-person pronoun to have first-person psychological states. On this point, I am in accord with Bermúdez. All intentional states of nonlinguistic beings are, by default, first-personal in that they are perspectival from the point of view of the intentional entity—human toddler or nonhuman animal. Although such intentional states are all implicitly first-personal—they represent the local environment, from the viewpoint of the subject, as being one way or another—they do not *refer* to anything first-personal. The subject with only simple consciousness (only a rudimentary first-person perspective) is the origin of his perceptual field. He does not represent himself in his perceptual field; he is its source. He does not need to make any first-person reference; the question of a first-person pronoun does not arise.

Where I disagree with Bermúdez is not about whether there can be nonconceptual representational contents. Creatures with only rudimentary first-person perspectives bear intentional (and representational) relations to objects in the world: the infant has such an intentional relation to her mother when she finds her breast, and a different intentional relation to

the psychologist whose facial expressions she imitates. The cat has one intentional relation to the mouse and a different one to her owner. Infants and cats need no concepts to exhibit these intentional behaviors. Beings with rudimentary first-person perspectives have intentionality and the representational ability to take objects in the world to be one way rather than another. However, such beings do not represent themselves, and hence neither have nor need first-person contents at all.¹⁹

I agree with Bermúdez when he says, “If we are to do justice both to the differences and to the similarities between infant and adult cognition then we will have to recognize the existence of states that represent the world in a way that is independent of concept mastery and, moreover, that can be ascribed to creatures who possess no concepts whatsoever.” (Bermúdez 1998, 24) I take ‘represent the world’ to mean something like ‘represent macro-physical objects in the environment to be one way rather than another.’ If this paraphrase is adequate, it suggests that the ability to represent the world does not require the ability to represent oneself, conceptually or nonconceptually.²⁰

In short, what is required for pre-linguistic representation is the ability to take objects in the environment to be one way rather than another, and to have intentional interactions with various objects. And we have all manner of behavioral evidence that beings with only rudimentary first-person perspectives—beings that do not have any concepts that depend on language—do represent objects in the environment to be one way rather than another and have intentional interactions with various objects: you see a dog chasing a cat toward an oak tree. The cat swerves at the last moment and climbs a maple. From your vantage point, you see that the dog missed the cat’s maneuver and stands on his hind legs barking up the wrong tree. (Malcolm 1972, 13) Without language, without concepts, and without reference to himself, the dog represented and responded to his environment.

How, then, do pre-linguistic human persons acquire the cognitive capacity to conceive of themselves *as* themselves? The answer, as I have argued, is by learning a natural language. In English, the capacity to think

19. Someone may think that if human infants cannot represent themselves as themselves*, then they have no basis for learning to do so. But I have argued that this is mistaken. Developmentally, human persons learn to represent themselves as themselves* by learning a language.

20. I think that Bermúdez does not distinguish sufficiently between consciousness and self-consciousness. A toddler who says, “I see a ball” is conscious, but may not yet be self-conscious; her first-person perspective may not yet be robust.

I*-thoughts develops along with acquisition of a self-concept, and for English speakers, acquisition of a self-concept occurs with mastery of the first-person pronoun ('I' and 'I*'); there is no question of which comes first, or which explains the other. They emerge together.

There may be an objection lurking here: On my view, there may appear to be vicious “capacity circularity” among the following: the capacity to think I*-thoughts, the acquisition of a self-concept and mastery of the first-person pronoun. To respond to the objection, I need an important distinction between in-hand capacities and remote capacities. You have an in-hand capacity to digest food, even when you are not digesting anything; but a human embryo that lacks a digestive system does not have an in-hand capacity to digest food, but has only a remote capacity—a capacity to develop a capacity to digest food. Or again: A hammer has an in-hand capacity for driving nails, even when it is in the toolbox; but unassembled hammer parts (a wooden handle and a metal head) have only a remote capacity for driving nails. A remote capacity may be thought of as a second-order capacity: a capacity to have or develop a capacity. (Pasnau 2002, 115)

Now consider the objection of “capacity circularity”: Bermúdez says that to meet the Acquisition Constraint on mastering the first-person pronoun and avoid circularity, there must be a time when the learner does have linguistic capacity for mastery of the first-person pronoun, and an earlier time when the learner does not have that capacity, but does have “other capacities on the basis of which it is intelligible that an individual could acquire the capacity for linguistic mastery of the first-person pronoun.” (Bermúdez 1998, 20) But Bermúdez claims that in order to acquire such mastery, the learner must already have at the earlier time “the capacity to think thoughts with first-person content, and hence...the capacity for linguistic mastery of the first-person pronoun.” (Bermúdez 1998, 20) Hence, the charge of circularity.

However, there is no circularity here: In the first place, I have already argued that pre-linguistic beings do not have the capacity to think thought with first-person *content*. In the second place, what the learner has at the earlier time is only the *remote* capacity—the capacity to develop the capacity—for linguistic mastery of the first-person pronoun, and what she acquires is the *in-hand* capacity for linguistic mastery of the first-person pronoun.

There is no question of how the learner moves from the merely remote capacity to the relevant in-hand capacity: She acquires the in-hand capacity for linguistic mastery of the first-person pronoun by social and linguistic

interactions as she learns a natural language. With the in-hand capacity for linguistic mastery of the first-person pronoun, the learner in typical circumstances masters use of the first-person pronoun. What she ends up with is the in-hand capacity to use the first-person pronoun ('I' and 'I*'). So, there is no vicious circularity or violation of the Acquisition Constraint. Bermúdez's worry about capacity circularity conflates remote and in-hand capacities.

Putting aside worries about the Acquisition Constraint, which of the six propositions that make up the paradox of self-consciousness do I reject? I reject (1): Analysis of I-thoughts (as opposed to I*-thoughts) tells us nothing about self-consciousness. And I reject (4): One need not antecedently have a capacity to think I-thoughts (or I*-thoughts) in order to master the first-person pronoun. A capacity to have I-thoughts or I*-thoughts is an in-hand capacity, not a remote or second-order capacity. One exercises the capacity to have I- or I*-thoughts simply by thinking them. So, when I reject (4), I am denying that one must already have an in-hand capacity to think I- or I*-thoughts in order to master the first-person pronoun.

I need not reject (6): It is easy to see how one acquires an in-hand cognitive capacity to think I*-thoughts by learning a natural language. So, again, there is no violation of the Acquisition Constraint interpreted as applying to in-hand (not remote) cognitive capacities in the metaphysical sense that Bermúdez insists on (Bermúdez 1998, 19). I also reject (5) for reasons unrelated to the concerns of this paper. I do not believe that there is an informative characterization of personal identity over time. (Baker 2012)

On the alternative to Bermúdez's view that I have sketched here, there is no paradox of self-consciousness; nor are there nonconceptual first-person contents. We can understand the similarities and differences between infant and adult cognition in terms of the development of first-person perspectives. An adult robust first-person perspective is the product of the infant's rudimentary first-person perspective and natural language.

7. *Conclusion*

When human beings are born, they are conscious beings who lack language and concepts. The bridge between infant cognition and adult cognition is natural language. Young children become self-conscious through the acquisition of language. The acquisition of language is the acquisition of concepts, including self-concepts. (A self-concept is whatever plays the

I*-role; in some languages, what plays that role may not be a first-person pronoun but some other grammatical device.) On acquiring a self-concept, a person becomes self-conscious: she acquires the capacity to conceive of herself as herself from the first-person.

I regard this transition from consciousness to self-consciousness as a trajectory from rudimentary to robust first-person perspectives. Persons—not brains, not organisms—undergo this development from being nonconceptual to being conceptual entities. (Brains of organisms, functioning normally and processing environmental stimuli, make this development possible.) One of the merits of this view is that it acknowledges the seamlessness of the animal realm: since persons are constituted by organisms, persons are part of the animal kingdom. At the same time, this view emphasizes the uniqueness of persons: Nonhuman animals can have rudimentary first-person perspectives, but only persons have robust first-person perspectives; only persons are self-conscious. (Baker 2003)

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