

STUDI

Indexical Duality: A Fregean Theory

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Abstract Frege's remarks about the first-person pronoun in *Der Gedanke* have elicited numerous commentaries, but his insight has not been fully appreciated or developed. Commentators have overlooked Frege's reasons for claiming that there are two distinct first-person senses, and failed to realize that his remarks easily generalize to all indexicals. I present a perspectival theory of indexicals inspired by Frege's claim that all indexical types have a dual meaning which, in turn, leads to a duality of senses expressed by indexical tokens.

KEYWORDS: Indexicals; First Person; Perspective; Senses

Riassunto *La doppia natura degli indessicali: una posizione fregeana* – Le osservazioni di Frege sul pronome di prima persona contenute in *Der Gedanke* hanno sollevato numerosi commenti, ma le sue intuizioni non sono state pienamente comprese o sviluppate. I commentatori di Frege hanno trascurato le ragioni per le quali egli sosteneva che ci sono due distinti sensi della prima persona e non hanno colto come queste sue osservazioni possono essere facilmente estese a tutti gli indessicali. Intendo presentare qui una posizione prospettivista sugli indessicali, ispirata dall'affermazione di Frege per cui tutti i tipi di indessicali hanno un doppio significato che, a sua volta, porta a una doppia natura dei sensi espressi dalle occorrenze indessicali.

PAROLE CHIAVE: Indessicali; Prima persona; Prospettiva; Sensi



Dr. Lauben's private "I"

GOTTLob FREGE DID NOT ADDRESS the topic of indexicals in any systematic way, but the few remarks he did make, notably, in his 1918 essay, *Der Gedanke*, have not been fully appreciated, despite numerous commentaries. Here I will develop a theory of indexi-

cals suggested by his intriguing treatment of the Dr. Lauben example. I hasten to add that this is not a paper in Fregean scholarship, and I will not speculate whether Frege's claims about the first-person pronoun can be reconciled with his other theses concerning language and thought.

The occasion for Frege's remarks was an

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extended discussion of *thoughts*. Frege noted several properties of a thought (*Gedanke*), among which are the following:

- ▶ A thought is that for which the question of truth and falsity arises.
- ▶ A thought is the sense of a sentence in the indicative mood which, in turn, expresses the thought.
- ▶ A thought is also a content (*Inhalt*) of thinking, that is, it is something that can be grasped, entertained, or apprehended.
- ▶ Thoughts are neither ideas internal to consciousness nor external material things, but entities of a “third realm”.
- ▶ Thoughts are objective, that is, their existence does not depend upon being apprehended.¹

From *Über Sinn und Bedeutung*, we also know that

- ▶ The senses of singular terms occurring within a sentence expressing a thought are components of the thought expressed (This follows from the Fregean compositionality principle for senses and from the fact that the sense of a sentence depends upon the senses of its component terms).
- ▶ A thought is *about* an object only insofar as the object satisfies a sense contained within the thought.

To these should be added a negative thesis, namely,

- ▶ Any object a thought is about – the referent of any singular term in a sentence expressing that thought – is not itself a component of the thought.

Two of Frege’s arguments for the latter are familiar. First, if referents were parts of

thoughts, then there would be no way to distinguish between the following pair:

$$3+4 = 7$$

$$8-1 = 7$$

or between,

The author of *Anna Karenina* was Russian

The author of *War and Peace* was Russian

Yet, each pair involves different thoughts. Second, some thoughts are about external material objects, e.g., Mount Etna, but if this object were part of a thought then «each individual piece of frozen solidified lava» would also be part of the thought, and that, to Frege, is «absurd».² Sentences containing indexicals pose problems. Since knowledge of the context is needed to correctly apprehend the thought expressed by such sentences, for example, “Today, it is raining” or “I am here”, then such sentences by themselves do not suffice for the full expression of a thought.³ This dependence upon context shows that the lexical meaning of an indexical does not, by itself, serve as an individuating *sense* of a singular term, for tokens of an indexical type have a constant meaning in all contexts yet vary in their reference. To retain the principle that reference occurs via an expressed sense, Frege realized that contextual elements are needed for the complete expression of the thought.

Thus, the contents of a sentence often go beyond the thoughts expressed by it. But the opposite often happens too, that the mere wording, which can be grasped by writing or the gramophone does not suffice for the expression of the thought [...] If someone wants to say the same today as he expressed yesterday using the word “today”, he must replace this word with “yesterday”. Although the thought is the same its verbal expression must be different so that the

sense, which would otherwise be affected by the differing times of utterance, is re-adjusted. The case is the same with words like “here” and “there”. In all such cases the mere wording, as it is given in writing, is not the complete expression of the thought, but the know-ledge of certain accompanying conditions of utterance, which are used as means of expressing the thought, are needed for its correct apprehension. The pointing of fingers, hand movements, glances may belong here too.⁴

Although Frege did not speak in terms of linguistic or lexical meaning, one proposal is that the sense of an indexical token in a given utterance is fixed by the meaning of an indexical type in combination with various “accompanying conditions of utterance”. The lexical meaning, in turn, may be viewed as a template that yields a sense upon being completed with these conditions.

Having noted the relevance of context in interpreting indexicals, Frege went on to say that the occurrence of the word “I” gives rise to some questions.⁵ Consider the case of Dr. Gustav Lauben who said,

(1) I have been wounded.

Suppose that a second person, Leo Peter, who heard Dr. Lauben’s utterance, subsequently remarked,

(2) Dr. Gustav Lauben has been wounded.

Suppose further that a third person, Rudolf Lingens, heard the utterance of both these sentences without knowing that Dr. Lauben was the speaker of (1). Frege writes,

if both Leo Peter and Rudolph Lingens understand by “Dr. Lauben ” the doctor who lives as the only doctor in a house known to both of them, then they both understand the sentence “Dr. Gustav Lauben has been wounded” in the same way, they associate the same thought with it.⁶

However, since Lingens does not know that it is Dr. Lauben who uttered (1), Frege concludes that what Lingens understands in processing Dr. Lauben’s (1) is not what he understands by processing Leo Peter’s (2). Frege concluded, «the thought which Leo Peter expresses [with (2)] is not the same as that which Dr. Lauben uttered [with (1)]».

Further, noting that a singular term can be associated with different senses for different users, if Herbert Garner does not associate the same sense with ‘Dr. Lauben’ that Lingens does, then Leo Peter’s utterance of (2) does not express the same thought to Garner as it does to Lingens. More interestingly, not only do (1) and (2), as heard by Lingens, express different thoughts, Frege claimed that what Leo Peter and Lingens understand by (1) is not the thought that Dr. Lauben himself apprehends in uttering (1).

Now everyone is presented to himself in a particular and primitive way, in which he is presented to no-one else. So, when Dr. Lauben thinks that he has been wounded, he will probably take as a basis this primitive way in which he is presented to himself. And only Dr. Lauben himself can grasp thoughts determined in this way. But now he may want to communicate with others. He cannot communicate a thought which he alone can grasp. Therefore, he must use the “I” in a sense which can be grasped by others, perhaps in the sense of “he who is speaking to you at this moment”, by doing which he makes the associated conditions of his utterance serve for the expression of this thought.⁷

A lot is packed into this intriguing passage. The concluding sentence points out that if Dr. Lauben uses “I” with a sense that can be grasped by other, as with that expressed by “he who is speaking to you at this moment”, then what Lingens understands by Lauben’s utterance of (1) is better expressed as

(3) The speaker of the utterance of (1) has

been wounded.

In John Perry's words, (3) expresses a *reflexive* content of (1) because it is a condition on (1), and it is true if and only if (1) is true.⁸ Assuming the point can be generalized, then Frege's words suggest a principle of the following sort:

(FP) In producing a token *t* of the first-person pronoun to communicate with others by means of an utterance U, one uses *t* with a sense that can be grasped by others, namely, as the speaker of U.

This principle illustrates how a linguistic meaning of "I" is a template for specifying the reference-determining sense, namely,

the speaker of utterance U

which is completed upon identifying a particular utterance.⁹

The first three sentences of Frege's passage indicate that a sense of this sort is *not* what is operative in the genesis of Dr. Lauben's self-presenting thought. Because of their publicity, and because they include another sense for identifying U, instances of the (FP)-template do not qualify as the "primitive and private way" through which Dr. Lauben is presented to himself. The latter, together with the predicated material expressed by "is wounded", determines an equally private thought that is distinct from that expressed by either (2) or (3). By all appearances, then, Frege felt that there are two senses and two thoughts that accompany a speaker's use of the first-person pronoun, one private and the other public. It follows that the first-person pronoun has more than one meaning, that (FP) cannot be its only governing principle, and that communication with others is not its sole function.

What other function could the first-person pronoun serve? *Why* did Frege make this distinction between first-person modes

or senses?

We need not look far for answers. Prior to the Dr. Lauben passage, Frege made a three-fold distinction in attitudes toward a thought, namely,

1. the apprehension (*Fassen*) of a thought – thinking;
2. the recognition of the truth of a thought – judgment;
3. the manifestation of this judgment – assertion.¹⁰

That this is a chronological ordering is indicated by Frege's subsequently referring to the apprehension as the «first act» and then saying that the recognition of a thought's truth-value comes afterwards. Effectively, a speaker apprehends a thought before judging it, and asserts it only subsequently to judging it.¹¹

Factoring in communication and, thus, an audience (hearer, reader), further attitudes must be acknowledged, specifically,

4. the speaker's communicational intention, that is, what the speaker intends to communicate through the utterance;
5. the audience's apprehension of the utterance and its relevant contextual features;
6. the audience's interpretation of the assertion.

If communication is successful, interpretation results in apprehending information that the speaker intended to convey.

Notice what these distinctions indicate. First, the self-presenting thought initially apprehended by Dr. Lauben was *not* something he came to apprehend by *processing* the utterance of (1). That is, he did not first witness his own utterance of (1), identify himself as its speaker, and then apprehend what he subsequently asserted with (1). This would be putting the interpretive cart before the pro-

ductive horse. Could he have identified the utterance *before* performing it? Perhaps, but by what means? Presumably by some description. But which? If, say, as *the utterance I am about to make*, he would already be thinking of himself in first-person terms, in which case (3) would be of no use in explaining his initial first-person thought. Nor would it do for Dr. Lauben to identify the utterance as *the utterance Dr. Lauben is about to make*, for Dr. Lauben might not have thought of himself as “Dr. Lauben,” and for this reason, (2) does not accurately represent Dr. Lauben’s initial thought either. Nor would any other second or third person description that he uniquely satisfies do the trick. Finally, it will not do if he were to identify the utterance as *the utterance Leo Peter will soon hear*, because this would not yield a self-presenting thought.¹²

Second, given that a sense is the way in which an object is given, cognized or identified, then some sense, specifically, one that ensures reflexive identification, is needed to explain how Dr. Lauben initially thought of himself and formed intentions to communicate about himself. The (FP)-instances are manifested only in interpretation or in the formations of intentions to communicate with “I”. To communicate that he was wounded, Dr. Lauben first had to identify himself so that he could then form an intention to convey information about himself, and (FP)-instances do not provide a suitable mode. A self-presenting mode is required for Dr. Lauben to realize facts about himself, a realization that can obviously occur without any concern for communication, as when we imagine Dr. Lauben alone in his house. Since such a mode is what occasions the actions of identifying, apprehending, intending, and uttering, let us speak of it as *executive* first-person sense. Instances of the (FP)-template, by contrast, are *interpretive* first-person senses.¹³

Third, if we acknowledge a duality of first-person senses, then there is also a duality of thoughts expressed by first-person means. Dr. Lauben’s initial thought differs from that which he intends his hearer to understand,

namely, that containing the interpretive he uses to “communicate with others”. Both thoughts may differ from the thought that terminates the hearer’s interpretation of the utterance insofar as the hearer uses the instance of the FP-template as a route to figuring out who the speaker is. For example, perhaps Leo Peter came to think (2) by way of first apprehending (3). In any case, it is misleading to speak of *the* thought or proposition associated with a first-person utterance.¹⁴

Distinguishing two meanings for the first-person, and correspondingly, two types of senses, one of which is executive, private, and pre-utterance, and the other of which is interpretive, public, and post-utterance, poses questions that Frege did not address. Foremost among them are the following:

- ▶ Do executive senses of the first-person pronoun also incorporate element of context? If so, what sort of contexts and what contextual features are needed to secure reference determining senses?
- ▶ Why are the executive senses of the first-person pronoun *private*?
- ▶ Is the first-person indexical unique in having a double meaning or does the same duality affect all indexicals?
- ▶ How do we successfully communicate with a sentence containing an indexical if that indexical expresses different senses to the speaker and hearer?
- ▶ How might a hearer attribute a first-person thought containing a private executive sense to the speaker?

My purpose now is to develop an account of indexicals along Fregean lines that will provide answers to the first three of these questions, pointing out that the answer to the first provides the material for answering the second and third. I will conclude with some brief remarks on answers to the fourth and fifth.

Generalizing Frege's insight

Standard accounts of indexicals are dominated by a consumerist model of language according to which the purpose of language is to communicate and semantics is a matter of interpretive procedures. This model is explicit in the work of philosophers like David Kaplan, John Perry, and Ruth Millikan,¹⁵ and is virtually assumed in subsequent discussions.¹⁶

The consumerist model can acknowledge that communicating requires thinking and that indexical expressions are vehicles for apprehending thoughts as well as conveying them to others. The interplay of indexical meaning with context is evident in both processes. Suppose you tell me,

(4) I'll give you this book if you remain sitting there.

I understand what you are saying only because I know who uttered the sentence, when and where it was uttered, and, perhaps, something about the your gestures and bodily orientation. To do this I must work *from* my grasp of the meanings of your "I", "you", "that book" and "there", and my perception of relevant contextual parameters *to* the determination of your referents using familiar semantic rules, e.g., that a token of "you" refers to the addressee of an utterance. You realize, in turn, that I am guided by such rules.

The limits of consumerism are manifest when it is realized that utterances must be produced before they can be interpreted, and such production cannot begin without conceptualizing the items we intend to communicate about. Here too indexical meanings show their value. The meanings of "I", "you", "that book" and "there" in your uttering (4) might have been as instrumental in *your* picking out particular persons, an object, and a place as they were in mine. But you did not arrive at these identifications by doing what I did, that is, by first perceiving your own tokens and then interpreting them by recourse to the context of utterance. These tokens were *inputs* of

my interpretive process, but *outputs* of your executive conceptualizations. In particular, you did not identify through the modes of *being a speaker* or *being an addressee*, nor did you begin with a thought that a hearer might have entertained upon apprehending your utterance of (4), e.g., namely,

(5) The speaker of (4) will give the addressee of (4) the speaker-indicated book if the addressee of (4) remains seated in the speaker-demonstrated place.

or, even less likely, the one I probably ended up with,

(6) He'll give me that book if I remain sitting here.

So, my identifying something by interpreting your utterance of (4) differs – in terms of cognitive procedure – from the executive identifications within the thinking that caused you to produce that utterance.¹⁷

Again, suppose you listen to an audio recording that you know was made on April 10th, 2015, and hear a voice saying, "I am not here today". You might identify the day referred to by employing the rule:

Take the referent of a "today" token to be the day on which its utterance is encoded.

However, if the person who made the recording intended the hearer to interpret "today" in terms of the hearer's own temporal perspective, the relevant rule would be:

Take the referent of a "today" token to be the day on which its utterance is processed.

In either case, you do not identify a particular day as *today* in the manner the speaker did, for the latter did not pick out a duration as the day in which a particular utterance occurred. None of us can think of a given day as being the day on which a certain utterance occurred without identifying that

utterance, but we can think, *What lousy luck we're having today*, without considering any utterance whatever. Consequently, an interpretive meaning for "today" on the order of,

being the day on which utterance U of "today" occurred [is encoded, processed, etc.]

is not even similar to the concept, *being today*, that guides executive identification. This difference cannot be explained if we insist that there is just one meaning governing both the production and interpretation of a "today" token.

We can think indexically without saying or hearing anything at all, say, by admiring *her*, envying *him*, regretting what we did *yesterday*, intending to run *over there*, having *now or never* sentiments, locating objects and events by means of *here*, *then*, and *beyond*, etc. We can identify items as *this tree*, *those books*, or *that hideous war*, and recognize their status as being *behind me*, *in this direction*, and *over there*. We do not have to utter sentences or to try communicating with others in order to think as we do. We can conceptualize through indexical concepts quite apart from interpreting utterances or forming intentions to communicate. Sometimes a speaker has no means of identification other than what an indexical provides, for instance, when a demonstrative like *that* represents the only way of picking out what suddenly looms into visual or auditory awareness: *What is that?*, or, when a kidnapped heiress locked in the trunk of a car thinks, *It is quiet here now*, without any other means of locating herself.¹⁸

Three differences between executing and interpreting indexical identifications have been noted. First, while interpretation is utterance-reflexive, execution is not. Second, tokens are causal inputs to interpretive identification but outputs of executive identification. Third, while interpretation is subsequent to the interpreter's perception of an utterance, executive thinking is not. Even if indexical tokens are conceived as mental rep-

resentations, the thinker who initiates an identification does not first become aware of these tokens and then interpret them by recourse to some sort of context in which they occur. At best, such mental tokens occur simultaneously with the producer's identifications, not antecedently as causal inputs.

A fourth difference is this. One who executes an indexical reference has room for a creative employment that an interpreter lacks. Interpreting someone's "This book has been invaluable!" requires exploiting the meaning conventionally associated with "this". Yet, within certain limits, the speaker has an option about which meaning to use, e.g., "That book has been invaluable", to make the same point. Again, noticing a person approaching in the distance I think: *That person is running*, but I might have thought instead, *That man is running*, or, *He is running*. Or, a modest person might prefer self-congratulations in the second-person, *You did wonderfully!* rather than, *I did wonderfully!* It is a fact about communication in general that a speaker has a choice that is not there for the interpreter.

A fifth difference is that to interpret an indexical one must already have cognitive access to the referent, as suggested by my apprehending (6) via an interpretation of (4). But a thinker might have no other means of identification other than what an indexical provides, for instance, when a demonstrative like *that* or a demonstrative phrase, *that over there*, represents the only way of picking out what suddenly looms into visual or auditory awareness.

Consider the kidnapped heiress; her indexical representations are *autonomous* inasmuch as their having the content they do does not depend upon her possessing other ways of distinguishing or describing what she is thinking about. In *this* sense she does not know what time it is since she cannot specify it in terms other than "now". Yet, the very fact that she is able to draw a contrast, that she knows it is quiet *now*, as distinct from quiet *then* (say, when she was abducted, or

when the car was speeding down the roadway), reveals that she is discriminating between her present temporal location and other times. More dramatically, suppose she were drugged and placed in a large, silent, fully darkened, weightlessness chamber; regaining consciousness, she finds herself floating, bewildered, with no idea where she is beyond what she thinks with *It is quiet here now*, a thought that would undoubtedly be true.

Finally, while both executive and interpretive identification are guided by indexical concepts, the difference in their procedures mandates a like difference in the concepts associated with one and the same indexical type. When my friend yells, “I am here” in response to my “Where are you?” I pinpoint his locale, but not by executing *I* or *here* identifications. I understand that with his “here” token, for instance, my friend is referring to the place he occupies during his utterance, a locale that I likely identify as *there*. My understanding of how another’s “here” works in communication guides my resolution of his token, but that’s not what guided his own identification of his locale. If both speaker and interpreter were guided by one and the same indexical meaning we could not explain these differences in identificatory procedures.

The upshot is that the meaning of an indexical type utilized in executive identification must differ from the meaning used in interpretation, and *semantic duality* must be recognized as an essential, perhaps distinguishing, mark of indexical expressions. It follows that different indexical senses can be expressed by a token in the utterance of one and the same utterance, and that the latter express both executive and interpretive thoughts.¹⁹

■ A perspectival account of indexical execution

How are executive modes contextual? Rather than looking to contexts of utterance, a different approach locates the discriminating contextual factors within a speaker’s antecedent psychological states, factors that are

egocentric or perspectival in virtue of their relations to a speaker’s unique spatial or temporal standpoints. Thus, something is viewed as *near* because of its relative proximity to a speaker’s standpoint. One object is *beyond* another in virtue of its greater spatial or temporal distance from the thinker’s own *here* or *now*. The utterance-reflexivity so critical to interpretation is only one kind of context-sensitivity; what we might call *perspectival-embedding* is another.²⁰

A perspectival approach to understanding indexicals is nothing new, because everyone realizes that knowing the speaker’s position and spatial and temporal relationships is relevant to the interpretation of indexicals. For example, if I utter,

- (7) You should take your umbrella; it may rain here today.

In addressing Jane in London in the afternoon of July 24, 2016, I reveal my relations to a particular person, time, and place. I must be *in* London, *addressing* Jane, *on* July 24, 2016 and only thus do I think of Jane as *you*, of London as *here*, and July 24, 2016 as *today*. My words are autobiographical, though biographical for my listeners, and Jane needs to understand this in interpreting my utterance. The same information is not conveyed by my assertion of,

- (8) Jane should take her umbrella; it may rain in London on July 24, 2016,

or,

- (9) She should take her umbrella; it may rain there then.

Even though, in both cases, I might be in the same position and identifying the very same person, place and time. Executive indexical thinking is also perspectival, not because it occurs *from* a particular spatial or temporal standpoint(s) – all thought occurs from the thinker’s unique standpoint – and not because

a speaker's perspective is relevant to interpretation. Instead, indexical execution is perspectival because relations to this standpoint are constitutive of the way a thinker conceptualizes the content, with the standpoint itself is manifested as the *centerpoint* of the speaker's perspective.²¹

At any given time, we are aware, in varying degrees, of a spatial and/or a temporal array of content or *data*. The most obvious arrays are comprised of sensory data, produced by the reaction of our perceptual systems to physical inputs. But each modality of consciousness, whether auditory, visual, tactile, imaginary, dreamlike, memorial, proprioceptive, and so forth, is associated an array of data, and one might be simultaneously aware of distinct arrays, as when one hears a melody while viewing a painting. The data within an array are partly individuated in terms of their spatial, temporal, or spatio-temporal locales or *positions*, each of which is either a volume, duration, a pair of such, or a sequence of such pairs, fixed by a distance, direction, and size of an immediate datum relative to the centerpoint of the array.

Within an event of perceptual awareness, it is more accurate to describe each datum as a *vector*, moreover, a force-vector, because it involves transference of content *from* a position in an array *to* the centerpoint, more noticeable in auditory perception than in visual.²² Sounds are obvious force-vectors, but so are perceived colors and shapes, and their vector character is likely inherited from those of the physical inputs (I am neutral on what can count as a perspectival datum, though I certainly count sensory shapes, colors, sounds, etc. as data, as well as afterimages). A *perspectival array* is nothing more than a dynamic spatial and/or temporal ordering of the data vis-a-vis the centerpoint. The vector character of the perspectival data is evident wherever there is a such an ordering, including in imagination, memory, and even in more contemplative states such as deductive inference.

Distinct contemporaneous perspectival arrays can be integrated into more comprehensive unities, a critical feature of behavior that relies upon cues from one or more

sensory modality, so that an agent might realize that a visual *there*, say, converges with a tactile *there*. A maximally integrated perspective during any interval, if there is such, is the totality of immediate data co-presented in a single episode of awareness. How comprehensive it is depends on the extent of an agent's co-awarenesses through distinct modalities, but, on the content side, the unity of consciousness is a matter of membership in a single perspectival array. A maximal array partly *constitutes* the occurrent mental life of the agent at a time, and while centered, this mental life extends throughout the array.

While there is no indexical conceptualization without perspective, there is nothing "indexical" about perspectival arrays as such. Arrays are given without any effort on our part. But indexicality is a creature of conceptualization and comes into existence only with attempts to conceptualize experiential content in terms of the positions within arrays.²³

Sometimes, spatial position serves to distinguish, as reflected by the use of "you" in,

(10) You, you, you, and you can leave, but you stay!

or the demonstrative phrases in,

(11) That ship [hearing a horn] is this ship [pointing through a window].

even though an auditory vector enables the initial demonstrative identification of the ship while a visual vector enables the latter. Sometimes, temporal factors are prominent role, as in anaphoric reference expressed through "the former", "the latter", "the previous one", or, when through a single window a person thinks the non-trivial,

(12) That ship [observing the bow go by] is that ship [observing the stern go past].

Discrimination in terms of position is only half the story. Executive indexical identification also depends on how a thinker classifies

the identified item. I can be in London on July 24, 2016 without identifying either the place or time as *here* and *today*, but to think what is typically expressed with (7) I must conceive my own standpoint as being *here* and the day as *today*. Even if Jane keeps the very same position within my perspective, I might have identified her demonstratively as *she* rather than as *you*, or as *that woman*. Executive indexical concepts guide thinking, and as with interpretive concepts, each imposes constraints upon what can be singled out. Most constraints are a matter of spatial and temporal relations between identifier and identified, as with (7), but others deal with intrinsic sortals, e.g., only events or intervals can be *then*, and only a man can be a *that man*.

Constraints are vague for deictic uses of pronouns like *he*, *she*, or *it*, and the demonstratives *that*, *those*, *beyond*, etc. Perhaps nothing more than position distinct from the centerpoint is imposed, though the *this/that*, *these/those*, and *here/then* contrasts suggest that relative proximity is also a factor. Similarly, in non-demonstrative uses of *I*, *here*, and *now*, what is identified is located within a four dimensional array of space-time positions that includes the centerpoint, while *I* carries the additional constraint that the identifier is the same as the identified. The indexical *you*, on the other hand, restricts the temporal location of the identified item to times that are simultaneous with or subsequent to the identifier's temporal locus. Also, what is picked out through *you* must be something that the user believes is susceptible to communicational influence, though it need not actually *be* so susceptible. Thus, despite an executor's leeway as to which indexical concept to employ in conceptualizing the data, once a choice is made, anarchy is not the rule.

While what is identified or thought about indexically need not itself be an immediate datum of direct awareness, access to it is parasitic upon some such datum. When I gaze at a dot on a map and think,

(13) That city is north of Prague.

I identify a particular city, say, Berlin, but I am directly aware of the dot. The latter is the *index* of my executive act, namely, what I explicitly "latch on to" in the course of picking something out²⁴ and of which I am directly aware.²⁵ Each index is an individuated item at a position, or, in the case of a dynamic referent such as a person moving across my field of vision, an item(s) at an ordering of positions. Identification is *direct* when the identified item is the index, as when I compare two colors in my visual field and think *this one is darker than that one*. The identified item is then itself positioned within the perspective.

Identification is *deferred* when made indirectly through an index, as with my reference to Berlin in (13) in terms of the dot on the map. The dot is not a logical subject in the thought I express with (13), though it might well be identified indexically in a distinct thought, e.g.,

(14) The city represented by that dot is north of Prague

to which I am committed by virtue of my deferred identification in (13). Both direct and deferred identification are perhaps present in,

(15) His mother is rich,

which I think while picking out a man in the room through *His*. Even tokens of a simple indexical can reflect a deferred identification, for example, remembering that *this has a nice beach* while noticing another dot on the same map. Similarly, "today" might have deferred uses insofar as the index of a *today* thought is a much briefer interval, or again, "we" for one who is speaking of a group only some of whose members are present. A more difficult example is,

(16) I am parked out back,

which is most likely be elliptical for,

(17) My car is parked out back.

If so, then “I” in (16) embodies a deferred identification, for just as it is not claimed that a dot on a map has a nice beach, so too, I do not view myself as parked out back.

Executive identification is secured through an *orienting relation* or «relation of contiguity»²⁶ linking the identified item to the index, a relation the executor must grasp. In the example of (14), Berlin is related to the dot through a representational relation, and I realize this in thinking (13). Sometimes a causal relation is involved, as in, *This fellow is clever*, having just read an essay on indexicals, namely, the relation of authoring such and such paper. A relation of temporal precedence is evident in the use of “yesterday” and a part-to-whole relation may be relevant for thinking that *Today has been rainy* or *This town is boring*, where, the indices associated with “Today” and “this town” are temporal parts of more extended entities. The *orientation* of an identified item is a relational property determined by its orienting relation to an index, e.g., being the city represented by that dot. When identification is direct, the orienting relation is identity and the orientation is the property of *being identical to the index*.

More formally, suppose that o is a position falling within a region occupied by an agent Y and m is a modality of consciousness (visual, auditory, etc.). If o is manifest as a centerpoint o' within Y 's awareness, then o' consists of either a time (duration) t , a place (volume) v , a pair (t,v) , or, when the agent is aware of itself in motion, an ordering of such pairs $\langle (t,v), (t',v), \dots \rangle$. The pair (o',m) determines a perspectival array for Y . Letting “ p ” be a schema for a representation of any position within (o',m) , then each datum $d(p)$ within (o',m) may be described as *d as located at p*, viz., *d-at-p*, or, better, to secure its vector character, *d-from-p*.

Let X be an item identified by means of an executive indexical concept k and an index $d(p)$ within an array (o',m) . If Y 's identification of X is deferred, then X is picked out by

means of a relational property $R[d(p)]$ fixed by an orienting relation R linking X to $d(p)$. The mode of presentation, can then be represented by $k(R[d(p)])$.

While k , p , R , $d(p)$, $R[d(p)]$, are all components of $k(R[d(p)])$, they need not themselves be identified by the thinker who employs the mode. If they are, as in *that boyfriend of Emma's* where “Emma” is itself identified, then the mode is complex. If not, it is simple. When identification is direct, the orienting relation R is identity and the mode can be represented equally well by $k([d(p)])$. All executive modes are “object-dependent” in the sense that their existence depends upon the existence of the indices. Modes of direct identification are also referent-dependent in the sense that they would not exist apart from what satisfies them, their referents, but the modes of deferred identification have a being apart from the items that might satisfy them. A few examples illustrate the pattern of analysis. Consider my use of the second person pronoun in uttering

(7) You should take your umbrella; it may rain here today.

while talking on the phone to Jane. If the index is the sound of a voice coming from the phone's receiver at point p , viz., [sound at p], and the orienting relation is the property of *producing* the sound at p , and my I employ the executive *you* concept, then my second-person individuating mode is,

you (producing [sound at p]).

Alternatively, if (7) reflects a *direct* second-person identification, say, if I am looking at Jane while addressing her so that Jane herself – from the position she occupies in my visual array – is the index, then my identifying mode would fit this schema:

you ([Jane at p]).

If, in speaking to Jane over the phone, I

formed the thought:

- (9) She should take her umbrella; it may rain there then

the identifying mode is

She (producing [sound at p])

The indexicals “now” and “here” may indicate the two parameters of a centerpoint, but they can also be used to demonstrate other locales, e.g., “Napoleon realized that it is now time to attack” or “Jonathan is right here [pointing to the corner]”.

A demonstrative use of “here” occurs in (7), picking out a place that includes the centerpoint, where the mode of presentation is likely,

here (being a city that includes [v]).

The mode associated with “today” in

- (18) While today we practice, tomorrow we play for keeps,

might be,

today (being a day that includes [t])

where the index t is the time of the utterance. Similarly, the correlated mode of my “tomorrow” could be,

tomorrow (being the day immediately succeeding the day that includes [t])

If we balk at accepting volumes or durations in themselves as immediate data and insist that an additional qualitative element d be included, say, a colored expanse, a sound, or an emotion, then the immediate data associated with my “today” can be depicted as $d(t)$, and the corresponding mode is,

today (being a day that includes [$d(t)$])

Similar adjustments can be made for

“here” and “tomorrow”. These examples show how executive indexical identifications occur in virtue of an item’s relation to a perspectival array, even though that array is not itself distinguished or conceptualized within that thought.

Indexical types can function as common nouns on this view. A person can be a *she*, a *you*, or a *that man*, just as a certain interval can be a *now*. But such an indexical status is, at best, a relational property of an item possessed only in relation to an experiencing subject who distinguishes it as such. Unless someone addresses you, you do not have the status of *being you*. A sound is not a *this* unless noticed as such, a person is not a *she* save through demonstrative identification, and a square foot of Antarctica can exist without ever being *here* or *there*. No object in the external world is intrinsically a *you*, a *she*, a *this*, or a *here*. Indexical status is extrinsic rather than intrinsic, relative rather than absolute, and contingent rather than essential. It can endure for a bit insofar as an act executive indexical thinking can endure over an interval, so that two tokens of “I” in a given utterance can be associated with one and the same mode. Also, because data can move within a single perspectival array then a single dynamic *this*, *that*, *he*, etc. can be associated with an ordering of positions. But perspectival arrays are individuated by the mental events which they constitute, and since the orientations of items fade with their perspectival arrays, indexical status is ephemeral. Its *esse* is *percipi*.²⁷

■ Back to Dr. Lauben

I have contended that the executive first-person identification is not utterance-reflexive; the mode employed cannot require the thinker to first identify an utterance and then determine its author. Similarly, it cannot require the thinker to identify an event of first-person thinking as Tyler Burge suggested in writing that the referent of a use of an “I” concept is fixed by the rule that <<the referent

is the author of the occurrence of thought containing application of the *I* concept».²⁸

If this were the rule that guides the executor then he or she would *first* have to identify the episode of thinking in which the *I* concept is applied *in order to* apply the *I* concept. Again, this gets things backwards; the *I* concept is instrumental in the initial self-identification and the apprehension, not something employed subsequent to a first-person thought. It is primitive in the sense of not containing another singular sense as a component, whereas any mode based on Burge's rule would be complex since a sense is needed to identify the thought.

What account can be provided for the executive first-person modes?

Two factors are essential; the executive *I* concept and an index. Though perhaps primitive or indefinable, the executive *I* concept comes with its own constraints, for only an experiencer, moreover, a conscious being identical to the identifier, can be identified through the executive first person concept. Cleaving to the analysis given, what is the index of an executive first-person mode? Recall that Dr. Lauben thought,

(1) I have been wounded

and thereby identified the person or organism that he is. Was Dr. Lauben himself – the person or organism – the index of his identification?

If so, then the orienting relation is identity and the executive mode is,

$I([\text{Dr. Lauben at } (t,v)])$

First-person identification would then be direct, not deferred. However, on a Fregean view, it is implausible to take the index to be Dr. Lauben himself, for if we cannot countenance Mount Etna as a component of our thoughts we should draw the same conclusion as regards ourselves, whether we are enduring organisms or four-dimensional entities comprised of person-stages. Such entities

are not present within perspectival arrays, at least not in their entirety. Unless we are willing to describe both index and person as an enduring *soul* that is wholly present in a single conscious act, the hypothesis that the index is the whole person or organism is not very promising.

So here's a different proposal. The index is a perspectival array, perhaps the maximally integrated array constituting a given episode of awareness.²⁹ An array is always there at every episode of indexical awareness, however thick or thin it might be, for immediate data and the associated reactions exist only as part of a unified whole. Just as there is an awareness of individual data-vectors, so too, there is an awareness of their perspectival assemblage, and while this awareness is typically marginal, it becomes salient in first-person thinking. It is the basis for thinking of the "me here and now" of which I, and I alone, am directly aware.

Accordingly, letting " $C(t,v)$ " represent an array centered on locus (t,v) , a candidate for Dr. Lauben's executive *I*-mode is this:

$I([C(t,v)])$

So understood, what Dr. Lauben identified as "I" is identical to the index $C(t,v)$, and her first-person identification remains direct. This analysis works provided a maximal array – a "self" of relatively short duration – is an entity that can be identified and referred to with "I". This minimal self may be *part* of the temporally extended being that I am, an idea that may initially seem outlandish, though not if a four-dimensional analysis of persisting organisms is taken seriously.³⁰ On the other hand, if Jane thinks of herself as something that persists, as in

(19) I have been lecturing in Paris for twelve years

or,

(20) I am gradually losing weight

then, on the assumption that what is identified is not an object of direct awareness, her identification is deferred rather than direct. The index is still the maximal array at the time, but since identification is deferred the orientation differs. While the persisting *I* is not identical to the index, it can be thought to “have” or be “partly constituted by” the index, and the relevant mode of presentation is representable as,

$I(\text{having } [C(t,v)])$

where “having” expresses orienting relation, namely, a compositional tie between the maximal array and a persisting *I*.

With these proposals, we capture two ways of thinking of oneself in first-person terms; as a momentary self – the *me here now* – and as a persisting organism to which such momentary unities belong. The former is direct, the latter deferred, but in both cases the guiding concept is the executive *I-ness* concept and the index is a perspectival array.³¹

Moreover, we can see that just as nothing is intrinsically a *this* or a *you*, so too, nothing is intrinsically an *I*. Insofar as being a *self* is nothing more than to be identified qua a first-person concept, then there are no intrinsic or natural “selves.” The *self*, just as much as the *I*, lives only within episodes of self-consciousness.³²

We have, at last, provided an account of Dr. Lauben’s primitive, private mode of self-presentation mentioned by Frege. Whether we describe it as $I([C(t,v)])$ or $I(\text{having } [C(t,v)])$, it is *first-personal* because of the classification it imposes, *primitive* in having no other sense as a component, and *private* because only the identified experiencer can use $C(t,v)$ as an index.

Indexical communication and quasi-indexical attributions

Can we square the foregoing duality theory of indexicals with Frege’s claims about the objectivity and communicability of thoughts?

Consider communication. If Dr. Lauben successfully communicated with Leo Peter in uttering (1), it does not follow that they shared identical thoughts. It is enough they thought similar things about the same referent, and this can be achieved through a coordination of thoughts that falls short of identity. Since there are two meanings associated with every indexical type, executive and interpretive, communication with indexicals requires only a systematic *coordination* of thoughts, and competence with indexicals is a matter of mastering this coordination. You succeeded in communication to me with

(4) I’ll give you this book if you remain sitting there.

even though the thought I ended up with is better expressed by,

(6) He’ll give me that book if I remain sitting here.

Our communication is successful because our distinct indexical senses and thoughts are coordinated in such a way that I am caused to think an analogous proposition concerning your referents.³³

Unless I am exceptionally autistic, I may also realize that your (4) also conveys information *about* your own thoughts. Because I understand the executive meaning of the first-person pronoun, I can surmise that you are thinking about yourself in a first-person way. Indexicals are always biographical to the hearer, yielding information not only about the speaker’s spatial and temporal positions and relationships, but also about his or her own conceptualization, as evidenced by an ascription like,

(21) He said that he himself will give me that book if the person he himself is addressing remains sitting there

where “he himself” and “there” are quasi-indicators used to attribute indexical thoughts

to subject. There is no identity between what I express with the subordinate clause and the thought that prompted your utterance of (4), for the embedded “he himself” does not express to me what your “I” expressed to you. There is coordination, however, since I understand the *sort* of mode you employ in identifying yourself even though I do not use a mode of that sort to identify you.³⁴

Are indexical executive thoughts objective? If “objective” requires *public accessibility* then private indexical thoughts are not objective. However, Frege held that thoughts are objective inasmuch as they exist and have their truth-values independently of our thinking.³⁵ If indexical thoughts exist independently of our thinking them, there is no barrier to their being truth-valued independently of our thinking. My own view is that executive indexical thoughts, like executive indexical senses, exist only when apprehended, though their truth-values are independent of our judgments. Whether they constitute an exception to Frege’s claim about the objectivity of thoughts is a matter for another paper.

Notes

¹ Frege also suggested that a thought is objective insofar as it may be apprehended by more than one thinker, though it is not clear that this is meant as a necessary condition. Cfr. G. EVANS, *Collected Papers*, edited by A. PHILLIPS, Oxford University Press, Oxford 1985, pp. 312-314.

² Frege expressed this view in an undated letter to Philip Jordain (cfr. A.W. MOORE (ed.), *Meaning and Reference*, Oxford 1993, pp. 43-45): «Now that part of the thought that corresponds to the name “Etna” cannot be Mount Etna itself». A similar view is expressed in his letter to Bertrand Russell of 13 November 1904, using the example of Mt. Blanc.

³ G. FREGE, *Der Gedanke*, in: «Beiträge zur Philosophie des Deutschen Idealismus», Bd. 2, 1918-1919, pp. 58-77 (Eng. trans. *The Thought: A Logical Inquiry*, in: «Mind», vol. LXV, 1956, pp. 289-311, here p. 296).

⁴ *Ibidem*.

⁵ *Ivi* (Eng. trans. p. 297).

⁶ *Ibidem*.

⁷ *Ivi* (Eng. trans. p. 298).

⁸ J. PERRY, *Using Indexicals*, in: M. DEVITT (ed.), *Blackwell Guide to the Philosophy of Language*, Blackwell, Oxford 2006, pp. 314-334, here p. 323.

⁹ Kaplan refers to this account of senses as a “Fregean theory of demonstratives” (cfr. D. KAPLAN, *Demonstratives*, in: J. ALMOG, J. PERRY, D. WETTSTEIN (eds.), *Themes From Kaplan*, Oxford University Press, Oxford, 1989, pp. 481-614, here p. 514). I follow Perry in viewing an *utterance* as an intentional act of speaking, signing, typing, writing, etc., and a *token* to be «an effect of such acts, a burst of sound or a mark that is intended to be perceived, recognized, and interpreted by a hearer or reader» (J. PERRY, *Using Indexicals*, cit. p. 316). Similarly, *meaning* is treated as a property of expression types (*ivi*, p. 322).

¹⁰ G. FREGE, *Der Gedanke*, cit. (Eng. trans. p. 294).

¹¹ Note that in his *Posthumous Writings*, Frege takes thought to be prior to language (cfr. G. FREGE, *Posthumous Writings*, translated by R. WHITE, P. LONG, Blackwell, Oxford 1979, p. 259). I take *asserting* a proposition to involve more than uttering a sentence that expresses that proposition; assertion must be backed by an endorsement of the proposition uttered.

¹² I rely here on the familiar reasons presented that first-person cognition is irreducible, notably, by Hector-Neri Castañeda (cfr. H.-N. CASTAÑEDA, “He”: *A Study in the Logic of Self-Consciousness*, in: «Ratio», vol. VIII, 1966, pp. 130-157; H.-N. CASTAÑEDA, *Indicators and Quasi-Indicators*, in: «American Philosophical Quarterly», vol. IV, n. 2, 1967, pp. 85-100). Not everyone has been persuaded, for example, Ruth Millikan (R. MILLIKAN, *The Myth of the Essential Indexical*, in: «Noûs», vol. XXIV, n. 5, 1990, pp. 723-734). Her view is that a person uses an indexical to refer only if the person already has cognitive access to the referent, so that an indexical thought is not how Dr. Lauben initially identified himself. Reflexive reference is achieved through an «inner self-name» which is not a mental indexical, nor employed in thoughts having a corresponding *I* character. Instead, it is a «Millian name whose semantics is exhausted by its referent, in this case, myself. My *use* of the public “I” is a way of *manifesting* “the activity of my active self name” by exploiting the public semantics associated with that type» (*ivi*, 732). The Fregean might complain that Millikan has not explained how thoughts are “apprehended”, but

she rejects the Fregean framework (see, for example, R. MILLIKAN, *Images of Identity*, in: «Mind», vol. CVI, n. 423, 1997, pp. 499-519). Herman Cappelan and Josh Dever also present arguments against the essential indexical (cfr. H. CAPPELAN, J. DEVER, *The Inessential Indexical. On the Philosophical Insignificance of Perspective and the First Person*, Oxford University Press, Oxford 2013), but as I point out they ignore Castañeda's irreducibility arguments and the autonomous uses of indexicals (see T. KAPITAN, *Review of Herman Cappelen and Josh Dever, The Inessential Indexical*, in: «Notre Dame Philosophical Reviews», September, 2014 – <https://ndpr.nd.edu>; see also below section 2).

¹³ The use of “executive” to label the speaker's indexical thinking is borrowed from H.-N. CASTAÑEDA, *Self-Profile*, in: J. TOMBERLIN (ed.), *Hector-Neri Castañeda*, Reidel, Dordrecht 1986, pp. 3-137, here p. 111 and H.-N. CASTAÑEDA, *Thinking, Language, and Experience*, University of Minnesota Press, Minneapolis 1989, chap. 4: «In confronting an object or aspect of experience, one bestows on it a place in present experience thereby constituting it as a present and presented referent. Thus, confrontational reference, the fundamental way of thinking of individuals, is *executive* or performative» (H.-N. CASTAÑEDA, *Thinking, Language & Experience*, cit., p. 68). A similar use of “executive” occurs in F. DE SAUSSURE, *Course de linguistique generale*, ed. par C. BALLY, A. RIEDLINGER, A. SECHEHAYE, Payot, Paris 1915 (Eng. trans. *Course in General Linguistics*, translated by W. BASKIN, Philosophical Library, New York 1959, p. 13).

¹⁴ Cfr. J. PERRY, *Reference and Reflexivity*, CSLI Publications, Stanford 2001; J. PERRY, *Identity, Personal Identity, and the Self*, Hackett Publishing Co., Indianapolis 2002.

¹⁵ Cfr. D. KAPLAN, *Demonstratives*, cit., pp. 602-603; Cfr. J. PERRY, *Reference and Reflexivity*, cit.; J. PERRY, *Using Indexicals*, cit.; R. MILLIKAN, *White Queen Psychology and Other Essays for Alice*, MIT Press, Cambridge (MA) 1993, p. 86-89.

¹⁶ To illustrate, John Perry writes: «The key function of indexicals, I claim, is to help the audience find supplementary, utterance-independent channels of information about the object to which or to whom the speaker refers» (J. PERRY, *Using Indexicals*, cit., p. 314). Noting that the hearer must already have a route to an object in order to interpret an indexical as referring to that object,

he writes that indexicals «are associated with roles that serve conversational purposes by directing the hearer to a second channel of information about their referent» (*ivi*, p. 324). A like emphasis upon communication is evident in Jeffrey King's *coordination account*, where an object is the value of an occurrence of a demonstrative in context just in case the speaker intends it to be the value and the speaker successfully reveals her intention to a hearer (J. KING, *Speaker's Intentions in Context*, in: «Noûs», vol. XLVIII, n. 2, 2014, pp. 219-237, in particular p. 225). Similarly, according to Allyson Mount, indexicals are devices of reference and do not refer except in the course of speaker and hearer mutually accepting a «perspective» in terms of which interpretation of indexical tokens occurs (cfr. A. MOUNT, *Character, Impropriety, and Success: A Unified Account of Indexicals*, in: «Mind and Language», vol. XXX, n. 1, 2015, pp. 1-21, in particular pp. 2-9).

¹⁷ This objection to consumerism is not avoided by Perry's suggestion that the “reflexive content,” e.g., what is expressed by (5), is what «helps us understand the reasoning that motivates the production of utterances, and the reasoning that is involved in their interpretation» (J. PERRY, *Using Indexicals*, cit., p. 323). Once again, a hearer's understanding of (5) is post-utterance, whereas, given what has been said in section 1 above, it is unlikely that thought of (5) was instrumental in causing the speaker's utterance of (4).

¹⁸ The example of the heiress is from Kaplan, though he uses it to make a point about reference, not identification. In both of these examples of autonomous usage, nothing need be uttered (cfr. D. KAPLAN, *Demonstratives*, cit., p. 536). Even when demonstrative utterances are made, they are not wholly driven by the need to communicate. For example, Piaget's research shows that small children will utter demonstratives in contexts that would normally require gestures but apparently without sensing the need (C. FILLMORE, *Lectures on Deixis*, CSLI Publications, Stanford 1997, p. 60).

¹⁹ John Perry pointed out that Frege should admit to a like duality for all indexicals (cfr. J. PERRY, *Frege on Demonstratives*, in: «The Philosophical Review», vol. LXXXVI, n. 4, 1977, pp. 474-497, in particular p. 491). A duality of indexical meanings is recognized in H.-N. CASTAÑEDA, *Reply to John Perry: Meaning, Belief, and Reference*, in: J. TOMBERLIN (ed.), *Agent, Language, and the Struc-*

ture of the World, Hackett Publishing Co., Indianapolis, 1983, 313-328, here pp. 323-325, and in T. KAPITAN, *Indexical Identification: A Perspectival Account*, in: «Philosophical Psychology», vol. XIV, n. 3, 2001, pp. 295-298.

²⁰ Several writers adopt perspectival approaches to indexicals, including Bertrand Russell (cfr. B. RUSSELL, *Human Knowledge: Its Scope and Limits*, Simon and Schuster, New York 1948, part II, chap. 4); Hector-Neri Castañeda (cfr. H.-N. CASTAÑEDA, *Indicators and Quasi-Indicators*, cit.; H.-N. CASTAÑEDA, *Thinking, Language & Experience*, cit., pp. 68-87); Gareth Evans (cfr. G. EVANS, *The Varieties of Reference*, edited by J. MCDOWELL, Oxford University Press, Oxford/New York 1982, pp. 143-204); Jaakko Hintikka (J. HINTIKKA, *Perspectival Identification, Demonstratives, and "Small Worlds"*, in: «Synthese», vol. CXIV, n. 2, 1998, pp. 203-232); Kapitan (T. KAPITAN, *Indexical Identification: A Perspectival Account*, cit.); Alyson Mount (A. MOUNT, *Character, Impropriety, and Success: A Unified Account of Indexicals*, cit.). John Lyons contrasts the «standard view» of deixis that dominates linguistics textbooks with an alternative view, one that takes the «egocentricity of the deictic context» as «rooted in the subjectivity of consciousness» (J. LYONS, *Linguistic Semantics*, Cambridge University Press, Cambridge 1995, p. 311). Opponents of this approach generally acknowledge that indexicals play a unique role in our psychological economy, but are wary of the perspectivist's acceptance of subjective, irreducibly perspectival features of the world (for example, cfr. J. PERRY, *The Problem of the Essential Indexical and Other Essays*, cit., pp. 3-32; R. MILLIKAN, *The Myth of the Essential Indexical*, cit.).

²¹ Other writers designate the locale of the thinker within his or her own egocentric space as a *point of origin* (H.-N. CASTAÑEDA, *Perception, Belief, and the Structure of Physical Objects and Consciousness*, in: «Synthese», vol. XXXV, n. 3, 1977, pp. 285-3351, here p. 305; G. EVANS, *The Varieties of Reference*, cit., p. 154), *zero-point* of a locutionary act (J. LYONS, *Linguistic Semantics*, cit., p. 304), or the *seat* of a physical feeling (A.N. WHITEHEAD, *Process and Reality* (1929), The Free Press, Macmillan, New York 1978, pp. 310-313).

²² A.N. WHITEHEAD, *Process and Reality*, cit., pp. 55 and 237-239.

²³ The importance of spatial and temporal locale in describing indexicals was emphasized by William

James, who wrote that the expressions “I”, “here”, and “this” are «primarily nouns of position» (W. JAMES, *Essays in Radical Empiricism* (1904), Harvard University Press, Cambridge 1976, p. 86). Similarly, Castañeda spoke of demonstrative or indexical properties as properties that “fix” positions in spatio-temporal fields (H.-N. CASTAÑEDA, *Perception, Belief, and the Structure of Physical Objects and Consciousness*, cit., p. 320). See also G. EVANS, *The Varieties of Reference*, cit., pp. 143-204.

²⁴ Cfr. G.E.M. ANSCOMBE, *The First Person*, in: S. GUTTENPLAN (ed.), *Mind and Language*, Oxford University Press, Oxford 1975, pp. 45-64, in particular p. 92.

²⁵ The term “index” was introduced into philosophical discourse by C.S. Peirce who used it to classify a sign that refers to an object in virtue of being physically connected with or «really affected by» that object (C.S. PEIRCE, *The Essential Peirce*, edited by N. HOUSER, Indiana University Press, Bloomington 1998, pp. 5 and 291). My usage follows that of Geoffrey Nunberg who distinguishes between a *deictic* component and a *classificatory* component of indexicals, both of which are distinct from the referent, and employs “index” to represent the «thing picked out by the deictic component of an indexical» (G. NUNBERG, *Indexicality and Deixis*, in: «Linguistics and Philosophy», vol. XVI, n. 1, 1993, pp. 1-43, here p. 19).

²⁶ G. NUNBERG, *Indexicality and Deixis*, cit., pp. 19-20.

²⁷ H.-N. CASTAÑEDA, *Thinking, Language and Experience*, cit., pp. 69-71.

²⁸ T. BURGE, *Reason and the First Person*, in: C. WRIGHT, B. SMITH, C. MACDONALD (eds.) *Knowing Our Own Minds*, Oxford University Press, Oxford 1998, pp. 243-270, here p. 246.

²⁹ Cfr. H.-N. CASTAÑEDA, *The Phenomeno-Logic of the I: Essays on Self-Consciousness*, edited by J.G. HART, T. KAPITAN, Indiana University Press, Bloomington, 1999, pp. 244 and 263.

³⁰ This view of a minimal self is nearly explicit in Whitehead: «My present experience is what I now am» (A.N. WHITEHEAD, *Modes of Thought*, Capricorn Books, New York 1958, p. 224). William James was no doubt correct in that diachronic consciousness appears as a continuous “stream” even though there is a noticeable succession of individual states within it (cfr. W. JAMES, *Principles of Psychology*, Henry Holt and Co., New York 1890, pp. 402-458). Perhaps experience is ultimately granular, as Whitehead contended (cfr. A.N. WHITEHEAD, *Process and*

Reality, cit.), but nothing prevents us from focusing upon certain gross segments selected through our own focused self-awareness. Thus, the index of a first-person identification is a portion of the stream thick enough to be a unified content of marginal awareness.

³¹ Marcel also speak of self-awareness in the occurrent and the long-term sense of “self” (cfr. A. MARCEL, *The Sense of Agency*, in: J. ROESSLER, A. EILAN (eds.), *Agency and Self-awareness. Issues in Philosophy and Psychology*, Oxford University Press, Oxford 2003, pp. 48-93, here pp. 50-51). Similarly, Strawson describes our experience of *I* as being sometimes of a momentary «subject of a unitary experience» and sometimes of a «persisting human» (G. STRAWSON, *The Phenomenology and Ontology of the Self*, in: D. ZAHAVI (ed.), *Exploring the Self*, Benjamin, Amsterdam 2000, pp. 39-54). I have discussed the reciprocity between these two types of *I* identification (cfr. T. KAPITAN, *Indexicality and Self-Awareness*, in: U. KRIEGEL, K. WILLIFORD (eds.), *Consciousness and Self-Reference*, MIT Press, Cambridge (MA) 2006, pp. 379-408, section 5), and in it may lay the key to explaining the genesis of first-person thinking.

³² Cfr. J.-P. SARTRE, *L'être et le néant*, Gallimard, Pa-

ris 1943 (Eng. trans. *Being and Nothingness*, translated by H.E. BARNES, Philosophical Library, New York 1957, p. 45; H.-N. CASTAÑEDA, *The Phenomeno-Logic of the I: Essays on Self-Consciousness*, cit., pp. 242, 270; H.L. DREYFUS, *Response to McDowell*, in: «Inquiry», vol. L, n. 4, 2007, pp. 371-377, here p. 373.

³³ The point is familiar. John McDowell, in addressing Frege's concerns about indexicals, suggests that communication occurs through a «correspondence» of thoughts rather than «shared» thoughts (cfr. J. MCDOWELL, *Meaning, Knowledge and Reality*, Harvard University Press, Cambridge (MA) 1998, pp. 222-223). Noam Chomsky generalizes the point by denying that «successful communication» requires «shared meanings» (cfr. N. CHOMSKY, *New Horizons in the Study of Language and Mind*, Cambridge University Press, Cambridge (MA) 2000, p. 30).

³⁴ I argue for this claim in a discussion of Castañeda's theory of quasi-indicators in T. KAPITAN, *On Depicting Indexical Reference*, in: F. ORILIA, W. RAPAPORT (eds.), *Thought, Language and Ontology*, Kluwer, Dordrecht 1998, pp. 183-215.

³⁵ Cfr. G. FREGE, *Posthumous Writings*, cit., p. 148.