

Indexical Identification: A Perspectival Account

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Abstract

It is widely agreed that the references of indexical expressions are fixed partly by their relations to contextual parameters such as the author, time, and place of the utterance. Because of this, indexicals are sometimes described as *token-reflexive* or *utterance-reflexive* in their semantics. But when we inquire into how indexicals help us to identify items within experience, we find that while utterance-reflexivity is essential to an interpretation of indexical tokens, it is not a factor in a *speaker's* identificatory use of indexicals. Tokens cannot be interpreted unless they are first *produced*, and obviously the speaker who produces them does not depend upon utterance parameters in order to identify their referents in the way that hearers do. Consequently, the standard reflexive accounts of indexicals are of little use in explaining the speaker's identificatory use of indexicals, and must be either replaced or complemented by a further theory of the role of indexicals in thought. This paper provides an account of indexical identification that is attentive to a speaker's as well as a hearer's identification and reveals how indexicals are inextricably *perspectival*.

Indexical Identification: A Perspectival Account

1. Identifying With Indexicals

Language is as much a means of thinking as it is of communicating. Through the meanings of its terms, particles, sentences, etc. we not only transmit information but also identify, distinguish, and classify items in our experience, and form thoughts for the purposes of believing, doubting, planning, or sheer entertainment. In the case of indexical expressions, these activities are systematically dependent upon the *contexts* within which indexical tokens are uttered and perceived. When you yell, “Stay there while I throw the ball to you!,” for example, I am able to identify your referents and interpret your utterance not only because I grasp the meanings of ‘I’, ‘you’, and ‘there’, but because I know that you uttered the sentence, when and where you uttered it, and, perhaps, something about the actions accompanying your utterance. I work *from* my grasp of the meanings of your words and my identification of both your tokens and of relevant contextual parameters such as your gestures and bodily orientation *to* the determination of the items you intend to refer to. In so doing, I access unique modes of presentation, for instance, being the one addressed through the utterance, even if some guesswork on my part is required. Described in this manner, indexical identification is *utterance-reflexive* because facts about the context of utterance are exploited in determining what is spoken of.¹

Some qualification is needed. Hearing the words “I am not here now” within a recorded message on an answering machine, one relies on cues picked up *not* from the context in which the message was recorded—*when* or *where* it was recorded, or for that matter, *who* uttered the recorded words—but from the context in which it is heard. The relevant “context of utterance” is one in which the utterance is *processed* rather than *produced*. Very likely, the recorder of the message intended the caller to interpret ‘now’ as the time during which the message is heard, ‘here’ as the locale that the caller thinks he has connected with then, and ‘I’ as the person the caller intends to speak with. Though the familiar linkage of ‘I’, ‘now’, and ‘here’ with the speaker, time, and place of the utterance-production is broken, the author is still assuming that the caller will rely on hearer-accessible features of the context of utterance-processing in order to interpret the embedded tokens.²

Yet, despite this qualification, recourse to utterances provides only half the story of indexical identification. While a hearer exploits facts about the utterance in determining referents, the speaker does not do the same in initially singling out those items. One who interprets another’s “This is revolting” is guided by the meaning of ‘this’ in examining the context of utterance to determine the referent, but a speaker who equally exploits a meaning of ‘this’ in picking out an object of disgust does not do so by recourse to that very utterance. His or her indexically-mediated thought is a cause of the utterance, not its effect. Interpretation is parasitic upon a speaker’s antecedent production or *execution* of an utterance, and therefore, it is subsequent to the *speaker-established* linkage between token and value. Utterance-reflexive or token-reflexive analyses afford little insight into the executive process underlying this linkage, and consequently, cannot provide a full

explanation of how indexical tokens have the referents that they do.

So, how does a speaker's identification with indexicals work? In what way are indexicals context-sensitive as they aid speakers in identifying objects and executing utterances? In particular, does a speaker have access to indexical modes of presentation that uniquely determine the indexically identified items? If so, how do these differ from the modes used by the interpreter? One approach to these questions 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. The utterance-reflexivity so critical to interpretation is only one kind of context-sensitivity; what we might call *perspectival-embedding* is another, and the object of this paper is to make this clear.³

2. Two Types of Indexical Identification

The sense of 'there' in your utterance, "Stay there while I throw the ball to you!" may be as instrumental in your picking out a specific place as it is in mine. Sometimes a speaker has no 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 Kaplan's case of the kidnapped heiress locked in the trunk of a car who thinks, *It is quiet here now*, without any other means of locating herself. Her indexical representations are *autonomous* inasmuch as their having the content they do does not depend upon her possession of other ways of distinguishing or describing what she is thinking about. There is a sense in which she does not know what time it is since she cannot specify it in terms other than 'now' (Kaplan 1989a, 536). 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 the car sped down the roadway after her abduction), reveals that she is discriminating her present temporal location from other times. It would be quite a different matter for her to think

Whenever and wherever I am, it is quiet there then.

or,

There is a place p and a time t such that I occupy (p,t) and it is quiet at (p,t) .

or, if 'here' and 'now' are sortals,

It is quiet at some *here* and at some *now*.

None of these tenseless generalizations captures the content of her apparently singular thought. Were her awareness of spatial location more fully expressible by 'here, in this trunk,' say, it would still be an indexical mechanism that functions autonomously in facilitating her identification, and if all indexical thoughts invoke some such classifiers then autonomy is restricted to complex indexical phrases. But 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. Apparently, thought by way of so-called pure indexicals can be autonomous as well.

Autonomous identification underscores important differences between the psychological processes involved in a speaker's execution of an indexical reference and those that constitute a hearer's interpretation. An interpreter must be able to identify a token, its author, when and where its utterance occurred, and, perhaps, what bodily movements accompanied that utterance. Not only is prior issuance of the token presupposed, the cognitive movement is *from* token-perception *to* determination of its referent, a state that could not be reached without independent familiarity with the candidates. So, for me to understand your references upon hearing you say "Stay there while I throw the ball to you!" I must be able to identify what you are referring to *independently* of interpreting your tokens (Millikan 1993, 269-271). I understand your 'I' token only because I both visually and auditorily identify you separately from my perceiving that token, and I know who your 'you' picks out since I have prior access to myself. Interpreting another's 'you' is not an *autonomous* identification that proceeds via the meaning of 'you'; it is a process of mating token to an independently identified item whose outcome is the realization that an item is a token's intended referent, and whose means include the interpreter's independent access to both. By contrast, the heiress did not entertain her thought by way of perceiving indexical tokens and attending to the context of their utterance in order to determine what they refer to. Similarly, when you informed me about throwing the ball, you identified me as well as yourself, but you did not do what *I* had to do, namely, interpret your own tokens by recourse to the context of their utterance to find out what you referred to. A speaker does not identify tokens or utterances before producing them; at best, both are *outputs* of the process whereby he or she identifies something indexically, not inputs. Consequently, although utterance-reflexivity is a feature of both a speaker's intention to communicate with indexicals and a hearer's interpretation, it is *not* a property of a speaker's identifications through indexicals (cf., Castañeda 1983, 323-325; Recanati 1993, 72). Since the identification is one a speaker makes *in the course of* producing or executing an indexical utterance, let us speak of it as *executive* identification.⁴

There are further differences between a speaker's executive identification and the interpretative identification of a hearer. A speaker has room for creative maneuver that an interpreter lacks. Interpreting someone's "You're in trouble!" necessitates employing the meaning conventionally associated with 'you'. Within certain limits, however, the speaker has an option about which meaning to employ. Perceiving a tottering barn on a drive through the countryside I might say: *That barn is dilapidated*, yet, given the same visual input, I might have used: *This barn is dilapidated*. Or, noticing a person approaching in the distance I think: *That person is running*, but I might have thought instead, *He is running*. Again, some like to package self-criticism with the second-person, *You're a fool!* rather than, *I'm a fool!* whatever the emotional payoff might be. Which indexical type a speaker employs involves a decision that is not evident in interpretation, and this is a further reason for labeling the speaker's identification as executive.

The meanings or concepts that speaker and hearer associate with a given indexical type also differ. If you listen to a tape you believe was recorded on May 11, 1991, and hear a

recorded voice saying “It is raining today,” then you identify the day referred to by employing the following rule of interpretation:

Take the referent of a ‘today’ token to be the day on which its utterance is recorded.

However, in so doing, you do not identify that period of time as *today* in the manner the speaker did since the speaker did not pick out an interval as the day in which a particular ‘today’ token occurred. The schematic, ‘being the day on which utterance *U* of ‘today’ occurred’ that guides your interpretation is not even similar to the concept, *being today*, that guided the speaker. Consider; I cannot think of a given day as being the day on which a certain utterance occurred without conceiving of an utterance, but I can think, *What fine weather we’re having today*, without considering any utterance whatever. Again, when my friend yells, “I am here” in response to my “Where are you?” I pinpoint his locale, but not by executing a *here* identification. I understand that with his ‘here’ token my friend is referring to the place he occupies during his utterance, a locale that I likely identify as *there*. My understanding of how ‘here’ works in communication guides my resolution of his token, but it does not guide his own identification of his locale. Analogously, I do not think of myself in a first-person way by identifying the author of a specific ‘I’ token. Nor do I think of the author qua *I*. Insofar as there are mechanisms guiding the *production* of ‘I’, ‘here’ and ‘today’ tokens, they concern the user's initial demarcations, not *post facto* interpretations.

If we insist that both speaker and interpreter are guided by one and the same (or similar) indexical meaning, we cannot explain these differences.⁵ Let us sharpen the point with this argument:

To identify something indexically is to be guided by the meaning of an appropriate indexical type. The meaning used to guide an interpretative identification by means of indexicals can be described through an utterance-reflexive rule. The meaning used in an executive identification through indexicals cannot be described through an utterance-reflexive rule. *Therefore*, the meaning of an indexical type utilized in the process of executive identification differs from the meaning of that type used in the course of interpretation.

Accordingly, a *meaning duality* affects the identificatory use of every indexical type; each comes with an executive and an interpretative meaning, a duality is accompanied by a systematic *coordination* at the deepest level of indexical communication. To illustrate, the speaker who identifies something can understand that the interpreter need not identify in terms of the very same meaning; I, as speaker, may very well realize that my *here* will be your *there*. Yet, I suppose that in perceiving my utterance of ‘here’ you have enough contextual information to identify my referent, and so I must be attentive to the meanings through which you identify. You might read backwards from the interpretative meaning prompted by your perception to an understanding of not only my referent but *how* I conceived it. When you tell me, “I am sad”, for example, you assume that I understand it is the author of the utterance who is claimed to be sad, but I don’t suppose that you identify

yourself as *the author of the utterance*, and you may know that I don't. My emotional response to you might be quite different if I attributed this identifying mechanism to you than if I attributed identification via the *self* mode. In short, from the speaker's point of view, the interpretative meaning—or "character" to use Kaplan's term (Kaplan 1989a)—is irrelevant for his or her own identifications, though it is extremely important for conveying information to an interpreter. From the interpreter's point of view, the executive meaning or character is relevant not for identifying *what* the speaker was talking about, but only for accurately understanding *how* the speaker thought of it, something the speaker may intend the interpreter to recognize. Hence, fully successful communication with an indexical token requires both parties to utilize *both* meanings of the associated type, and it is this coordinated duality, in addition to the peculiar sorts of context-dependence, that distinguishes indexicals semantically.⁶

Let us take stock of these differences: a speaker's identificatory use of indexicals is executive, possibly autonomous, but not utterance-reflexive, whereas an interpreter's identification is utterance-reflexive but neither autonomous nor executive. Moreover, utterance-reflexivity is part of the interpretative meaning of an indexical type, but not of executive meaning. What speaker and hearer *do* in identifying an item is different, and the meanings they exploit are different. Yet, *context* remains essential for both; merely knowing the respective meanings of the types 'you', 'this', 'beyond that rock', etc., is no more sufficient for executive identification than it is for interpretative. Somewhere, somehow, cues for discriminating between the spheres are there *in* the perceptual situation that occasions a speaker's use of indexicals. These cues are parameters within the speaker's *context of identification* and dependency upon them *is* the reflexivity of executive identification, but they are neither utterances, tokens, nor properties of either.

3. Are There Individuating Modes of Indexical Identification?

Identification, as a process of consciously distinguishing something from all else, is achieved only through a *sense* of contrast—the "germ" of consciousness (Whitehead 1929, 286, 372). Contrast, in turn, is secured only through access to discriminatory data. I can distinguish one volume in my library from another in terms of their respective contents, or I might recognize this copy of the *Illiad* to be distinct from that copy even though they are qualitatively indistinguishable, both are mine, and I hold both now in my hands. I mark them as separate only because I fix upon a feature the one has and the other lacks, e.g., a bare difference in locale; the one copy is *here*, the other is *there*. That we justify our distinctions by recourse to discriminating features, however minimal and uninformative, illustrates that we grasp not only *that* the items differ from other things but *how* they differ. It is but a short step to the following *identification principle*:

One identifies an item only in terms of what is unique to it, that is, by means of one or more of its distinguishing features.⁷

To acknowledge this necessary condition is not to endorse the views that senses exhaust what one grasps in thinking of an item, that there are no object-dependent thoughts, or that identifying properties are sufficient for identification or constitutive of "what is said." Nor does it imply that one *classifies* the distinguished item; it requires only that one is guided by

a uniqueness condition in identifying, noting differences without conceptualizing them, just as a small child might make color distinctions without classifying.⁸

Is indexical thought governed by the identification principle? Certainly *interpretative* thinking via indexicals is. For Y to know that X referred to Z with indexical token *t*, Y must pay attention to both contextual factors and information about how X referred, the latter picked up by perceiving the token X uses. For instance, if *t* is a token of ‘you’ occurring within Tania’s utterance U, then Konstanz applies the interpretative meaning of ‘you’, viz., *being addressed by the speaker*, in determining that Katrina, say, has an appropriate relational status, namely, *being whom Tania addresses through utterance U*. This condition, generated within the context in which the token is processed, is the uniquely satisfied mode of presentation that Konstanz relies upon to determine Tania’s referent (Perry 1997, 597-598), though it might not have been the mechanism whereby Konstanz initially identified Katrina. Interpretative identification with indexicals, then, conforms to the identification principle.

Does a similar situation apply to a speaker’s executive identification? It might be thought that the character-context-content framework obviates any need to posit individuating modes here. Harry Deutsch, for instance, argues that the identification principle “seems to be directly contradicted by propositions involving indexicals. I can know that I am hungry or that it is raining now without having any substantive information about who I am or what time it is” (Deutsch 1998, 879). Again, I might point to something and say “I don’t have the slightest idea what that is” while uttering a truth concerning it, e.g., *This is in front of that*. I think of something via an indexical character without having “substantive” or discriminating knowledge of it, uniqueness being secured by my particular perspective upon the object. David Kaplan supposes that identical twins, Castor and Pollux, might be raised under qualitatively identical conditions, qualitatively identical stimuli, etc., so that when each says, *My brother was born before I was*, they think the same thought even though their references differ (1989a, 531-534). Yet neither may be capable of distinguishing himself from his brother. Paradoxically, it appears that one can think of something indexically without knowing what one is thinking about, just as the kidnapped heiress, “knowing neither the time nor where she is”, may still think “It is quiet here now” (p. 536). It is a “sloppy thinker” who succumbs to the temptation of moving from our “privileged perspective” to a “privileged picture” of what is referred to, viz., who confuses features of a thinker’s situation that explain how his or her thought is about a particular thing with properties of that thing (pp. 533-534).

If Deutsch and Kaplan are correct then individuating modes are not required for executive identification. Perhaps the producer of indexical tokens is not really *identifying* the objects he or she intends to convey information about. Kent Bach writes,

. . . one can think of an object without being able to identify it, that is, without knowing which object it is (in any useful sense of ‘knowing which’). . . . you can think of an object you have perceived before merely by remembering it. That you remember something, hence your ability to think of *it*, does not require that how you remember it distinguishes it from other things. All that matters is that it caused the percept that resulted in the memory.⁹

Bach rejects the idea that thinking about an item requires identifying it because this implies *knowing which* item it is, hence, an ability to reidentify it (1987, 43). Since reidentifying is not necessary for thinking of an object neither is identification, in which case the identification principle is false. But does demonstrative identification requires a subsequent ability to *reidentify*? I might demonstratively distinguish a brown bird or birdlike shape against a green background, though not against a suitably textured brownish background a moment later—hence, camouflage protects. Flying in a plane above the clouds I might pick out a place only once as a *there* without ever being in a position to distinguish it again, or perhaps I slip into a state of devastating amnesia immediately after reacting to a massive explosion with “What was *that*?!” In each of these cases I identify or distinguish a thing, though I am unable to reidentify it. So, if knowledge implies the ability to reidentify, then identification does not require “knowledge.” Yet, inasmuch as thinking about a thing during a time *t* is an *attentive* awareness of it during *t* then identification of *X* *during t* is essential. Given that attention is inseparable from contrast, then even if a causal explanation is required to link thought to a unique object, we do not fully account for attention merely by discerning its causes. We must also consider *what it is* to attend to something, and insofar as this involves a sense of contrast then an account of discriminatory awareness is required.

It is not easy to give such an account without individuating modes. Contextual factors like demonstrations or intentions, however essential for communication, fail to combine with indexical meaning to yield executive identification. For the speaker, the informativeness of a statement like *That is that* cannot be explained in terms of different demonstrations or by a character that results from combining a demonstration with an indexical meaning (Kaplan 1989a, Braun 1996, 155-156). The problem is not only that the speaker might not have demonstrated or that demonstration does not secure a referent without an accompanying intention (Reimer 1992, 396), but that demonstration itself presupposes antecedent discrimination. Demonstrations are more relevant to a hearer’s discrimination rather than to the speaker’s, as evidenced by Kaplan’s remark that “a single performance may involve distinct demonstrations from the perspective of distinct audiences” (Kaplan 1989a, 515).

Nor are the extra contextual factors the *directing intentions* that Kaplan has since favored (1989b, 588) *insofar as* these are the sorts of intention that characterize demonstrative or communicative *acts*. Perry, who has a similar view, writes:

The designation of an utterance of “that man”, however, is not automatic. The speaker’s intention is relevant. There may be several men standing across the street when I say, “that man stole my wallet.” Which of them I refer to depends on my intention. (Perry 1997, 595-596, and see also Bach 1987, 314)

While it is undoubtedly correct to say that who or what I intend to convey information about depends upon my intention to demonstrate—my “deictical intention” (Garcia-Carpintero 1998, 550)—we are still looking at the object of my discourse from the standpoint of communication only. Since communicational reference presupposes prior executive identification, we cannot read the phrase ‘refer to’ in Perry’s last sentence as being

synonymous with ‘identify’ in the sense of initially picking out something for the purposes of saying something about it. The dependency, in fact, is quite the reverse: intentions are directed *upon* prospective actions identified in terms of their components. *What* I intend to communicate information about depends on my identification, not conversely, and for this reason, intention is not the factor to be added to executive meaning in accounting for executive identification.

One cannot think about an object or event without being able to distinguish it, at least momentarily, from other material within one’s experience. As autonomous indexical thinking shows, segregation can be achieved through a simple demonstrative that singles out something solely in terms of its locale without any additional descriptive knowledge. Position within one’s perspective *is* the discriminating mechanism in such cases, and without some such minimal access to one’s perspective there would be no singular indexical thoughts, no way that one’s awareness would be *of* X rather than of Y. For example, the heiress’s ability to identify a time and a place in thinking, *It is quiet here now*, is dependent upon her ability to draw contrasts indexically, for instance, to form *then* and *there* thoughts; it was not quiet *then* (when the car was speeding along the roadway) nor *there* (at the place of abduction). She is able to attend to a particular time as *now* and a particular place as *here* inasmuch as she is informed that the time and place have a certain status vis-a-vis her own perspective, specifically, that they constitute its locale or “point of origin” (see below). This individuating status is ephemeral and not very “useful”—to use Bach’s term—in subsequently *tracking* that place and time, but it is what enables her to pick out that place and time in thinking, *It is quiet here now*, when, where, and how she does. As such, her own perspective is a cognitive factor within her thought, an “unarticulated constituent” that she cannot identify through additional descriptive information (Perry 1997, 1998a, and compare Russell 1948, 90-93; Evans 1982, 153-170).

Why is it that Castor and Pollux have distinct contents in thinking, *My brother was born before I was*? Why is it that Castor can think only of Castor when he thinks of anything *qua* self? We, as observers, know automatically that if he thinks through the executive meaning of *I*—through the *I*-character—then he can only be thinking of himself. But this is no explanation of how Castor himself picks out what he does. The executive meaning of *being an I* (*being a self, thinking of oneself qua self*) does not provide *him* with the requisite means of contrast since he might be well aware that many individuals satisfy the generic self mode. Instead, in grasping what separates himself from all else, he is cognizant of a relation he uniquely bears to the perspective imposed by a current awareness, the latter being the unarticulated constituent that ultimately distinguishes his thought from Pollux’s. The relation is something like *being the subject of* that awareness, *having* that awareness, or, depending on one’s view of the “I,” *being* that awareness. Combining it with the executive *I*-character yields the individuating indexical mode that does the identificatory work and accounts for the difference between Castor’s and Pollux’s cognitive states.¹⁰

4. How Executive Identification is Perspectival

The task is to explain exactly how executive meaning and perspective yield indentifying modes, thereby allowing for executive identification through indexicals. Obviously, to

identify something perspectively is not simply to identify it from a given spatio-temporal position; all identifications occur *from* the thinker's unique standpoint. Nor do we advance to executive identification by adding executive meaning to standpoint. From a given point of view, I might identify many individuals in terms of *he*, and many places as *there*. It is neither executive meaning—what we can also call the *indexical form* through which one encounters something in experience—nor the thinker's spatio-temporal standpoint, nor their combination that explains the difference in the individuating senses of equiform indexical tokens issuing from a single psychological state, e.g., in *You, you, you, and you can leave, but you stay!* or in *This ship* [pointing through one window] *is this ship* [pointing through another window].¹¹ Instead, identification is perspectival because relations to the speaker's spatial and/or temporal standpoint are *constitutive* of the individuating mechanisms employed. In some cases, these relations are configured by the executive meanings of the indexicals employed. Consider the difference between

(1) You'd better not wear that around here today,

and,

(2) Marsha had better not wear her CP badge around the Republican Headquarters on the next election day.

Upon my uttering (1), the indexical tokens are autobiographical for me—biographical for my listeners—since they reflect *my* relations to the referents, namely, I must be *in* the Republican Headquarters, *addressing* Marsha, *on* the next election day. These restrictions upon where and when I can be in order to express what I do with (1) do not hold for (2). I might have uttered (2) in the distant past without any intention of addressing Marsha, perhaps hoping that she will be cautioned by others; its referring terms do not reflect the same relations to my referents. Again, if instead of (1), I had thought of Marsha, the Republican Headquarters, and the next election day with,

(3) She'd better not wear that around there then.

then the constraints imposed by 'She', 'there' and 'then' would differ from those associated with 'You', 'here' and 'today', prohibiting my use of (3) to say what I can with (1). An indexical form always imposes general limitations on *how* an indexically-identified item can be conceived, and for some forms these include constraints on *where* the immediate content of an indexical identification is located vis-a-vis the thinker's standpoint. The constraints are vague for the demonstratives *that*, *those*, *beyond*, etc., and perhaps nothing more than location distinct from the point of origin is imposed, though the *this/that* and the *these/those* contrasts make relative proximity a factor. Similarly, in the case of *I*, what is identified, namely, oneself, is located at the point of origin of the four dimensional array of space-time positions that constitutes a perspective. The indexical *you*, restricts temporal location of the identified item to times that are simultaneous with or subsequent to the identifier's temporal

locus. Forms like *it* and *here*, on the other hand, impose no positional constraints.

To understand how spatio-temporal relations enter into executive identification we must go further. Perspectival identification involves a spatial or temporal array of items of which one is immediately conscious. Each is an *immediate content* of an identificatory act, i.e., what a thinker explicitly “latches on to” in the course of picking something out (Anscombe 1975, 92, and see Nunberg 1993, 4-7, which uses ‘index’ instead of ‘immediate content’). Different modalities of consciousness, auditory, visual, tactile, imaginary, dreamlike, memory, and so on, are associated with diverse arrays of immediate contents, even when contemporaneous. For example, the spatial and temporal ordering of sounds that one hears during a certain interval is an auditory array that might be simultaneous with a visual array of colored shapes. The immediate contents are ordered in terms of their spatial and temporal positions, each of which is partly fixed by the distance and direction from the *point of origin* of the identifying act.¹² Any such array belonging to the act constitutes a *perspective*, properly speaking, allowing us to speak of both the point of origin—typically presented as *here* and *now*—and the position of every other immediate content as being *within* the perspective.¹³

A *position* is either a volume, a duration, or a pair of such fixed by a *presented* distance and direction from the point of origin.¹⁴ In the case of dynamic referents, e.g., *That is moving very quickly*, the position is an ordering of such pairs. For instance, I am presented to myself *qua* self via a conscious state located *at* the point of origin of a perspective, a region that I typically express with a ‘here’ and a ‘now’, though not with ‘being at the point of origin of my perspective’. Each *this* is located at a particular place in the presented foreground of a perspective, each *that* at a place in the background, each *before* at a time prior to an independently recognized time or event. Similarly, each token of ‘you’ in the statement, *You, you, you, and you can leave, but you stay!* is indexed to a different locale, though the indexical form is the same. Even the effusive smell of an oil refinery occupies a locale, perhaps a vaguely defined region encompassing the perceiver’s own position, but very definitely and disturbingly *here*. Sometimes the only difference between individuating modes is spatial position, for example, when someone simultaneously observes one part of a ship from one window and another part from a different window and thinks: *This ship is identical to this ship*. Positional difference may here be the sole source of non-triviality. Sometimes it is only a temporal component that individuates, as in anaphoric reference expressed through indexicals like ‘the former,’ ‘the latter,’ or ‘the previous one,’ or, again, when through a single window the person observes first the bow and then the stern go past and thinks the non-trivial: *This ship is identical to this ship*.

An indexically identified item itself need not be among the immediate contents of an executive identification. Identification is *direct* if the identified item is an object of immediate awareness, as when I compare two colors and think *this one is darker than that one*. It is *deferred* or *vicarious* when made indirectly through something else one is aware of, for example, when I look at a photograph of a cathedral and think, *That building is in Paris*. While I pick out the cathedral, my identification is parasitic upon my immediate content, the photograph. The latter is not itself the logical subject of my predicative thought, though it may well be an unarticulated element in a more complete proposition,

viz., in *The building pictured in this photo is in Paris*, to which I am committed. Tokens of a simple demonstrative can reflect vicarious identification, for example, when I say that *this has a nice beach* while pointing to a locale on the map. Even ‘I’ may have deferred uses, as when I think that I was in Paris ten years ago—if one supposes that the identified is not the present *I* but a past self intimately related to the present self (Castañeda 1999, 198-202). In each case, identification is secured through an accessible *orienting relation* or “relation of contiguity” (Nunberg 1993, 19-20) between the identified item and the immediate content. In the photograph example, the cathedral is related to the immediate content through the relation of *being pictured by* (or, perhaps by a more complex relation if the photo is not itself an immediate content). Sometimes a different causal relation is involved, as when one says “this man is deluded” having just read a piece on the OpEd page of *The New York Times*, namely, authoring such and such column. A part-to-whole relation is evident in *Today has been rainy* or *This city is exciting*, where, the immediate content associated with ‘Today’ and ‘this city’ are but temporal parts of more extended entities. When identification is direct, the orienting relation is identity. The *orientation* of an identified item is a relational property determined by its orienting relation to an immediate content, e.g., being the author of such and such column.

Neither the position of immediate content nor the orientation of an item within a perspective determines whether an item is identified as an *it*, a *he*, a *you*, a *that*, etc. Nor does the presence of classifying sortals tip the balance, as the choice between *this barn* and *that barn* illustrates. Indexical individuation does not come from the immediate content alone, even when identification is direct. For example, a particular color might be present at a locale within my visual awareness even before I identify it, say, as *that color*. Both position and orientation impose constraints, but there is room for decision about which indexical form to employ, just as there is about which sortals to use in classifying what one distinguishes. Recalling the creative aspect of executive identification noted above, there is an arbitrariness to a thing’s indexical status, and so it is that executive modes are inseparable from their identificatory acts.

5. A Perspectival Analysis of Executive Indexical Modes

While the stage has been set for an account of a person’s executive identification with indexicals, it is still necessary to show how executive indexical meaning combines with perspective to yield individuating executive modes. The following factors are the elements within any such act of identification:

An immediate content: The item that a thinker directly encounters or “latches on to” in making an indexical identification.

The point of origin: the spatio-temporal location of the thinker typically presented to the thinker as *here* and *now*.

The position of the immediate content: either a volume, a duration, or a pair of such, fixed by a *presented* distance and direction from the point of origin

A perspective: A spatio-temporal array of immediate contents belonging to an act of identification within which each has a position.

An *orienting relation*: a relation that links the indexically identified item and an immediate content of the identifying act.

The *orientation*: a relational property of an identified item determined by its orienting relation to an immediate content.

An *indexical form of encounter*: the executive meaning associated with a particular linguistic type that guides speaker identification.

We can now more cleanly describe individuating executive modes. Let ‘ (o, Y, m) ’ represent a *perspective* within Y 's act of identification, where o is a spatio-temporal locale occupied by Y (or, by the act itself) and m is a modality of consciousness (visual, auditory, etc.). The locale o may itself be analyzed in terms of a pair (d, v) consisting of a duration (time) d and a volume (place) v , or through an ordering of such pairs $\langle (d, v), (d', v'), \dots \rangle$, though it is representable within (o, Y, m) as the point of origin, that is, as the *here* and *now*. Each immediate content $c(p)$ within (o, Y, m) is located at a spatio-temporal position p determined by a presented distance and direction from o , giving the experience of each a *vector* character (Whitehead 1929, 86, 363-365). (In the interest of precision, every immediate content and position should be represented with an indication of the perspective to which it belongs, but for sake of brevity, this will be left tacit.) The orientation of any indexically-identified item X within (o, Y, m) is an extrinsic property of X fixed by an orienting relation R correlating a subset of immediate contents to X . Let us represent this orientation by ‘ $R[c(p)]$ ’, or, for dynamic referents, by ‘ $R[c(p_1), \dots, c(p_n)]$ ’. If X is itself the immediate content, that is, if $X=c(p)$, then R is the identity function, and the orientation $R[c(p)]$ is the property of being identical to $c(p)$. If X is not the immediate content, then the orientation $R[c(p)]$ is the property of being the image of $c(p)$ under R .

Each individuating executive mode combines an indexical form (=executive meaning) k and an orientation $R[c(p)]$. Each form k can itself be represented by a function correlating every orientation $R[c(p)]$ as input with a unique individuating executive mode $k(R[c(p)])$ as output. A mode is *direct* whenever R is the identity function; otherwise it is *indirect*. Depending upon the presence of additional sortal material, k is either simple or complex. The pure indexical forms *I* and *now* as well as demonstrative forms *this*, *you*, *there*, *beyond*, etc. are simple because they individuate by indexical status alone. By contrast, the forms expressed through complex demonstratives like *that building*, *this pen*, *the day after tomorrow*, etc., and perhaps also personal pronouns like *he* and *she*, are mixed, each combining a simple indexical character with classificatory sortals. In some cases this descriptive material plays an important individuating role, as when an art critic says, “This shape [tracing the outline of a vase] is more subtle than this color [drawing a hand across its visible surface]”. Here the descriptive material, the shape and the color, belong to the immediate content rather than to the speaker-imposed form.

A few examples can illustrate the hypothesis that all individuating executive modes conform to the pattern, $k(R[c(p)])$. Consider my use of the second person pronoun in uttering,

- (1) You’d better not wear that around here today

while talking on the phone to Marsha. The relevant perspective associated with my ‘you’ is fixed in terms of me, my position (d,v) , and the auditory modality. The immediate content $c(p)$ is the sound of a voice located in the phone’s receiver at point p defined in terms of (d,v) , while the orienting relation R is that of producing that sound. The orientation is the relational property of producing that sound. By adding the indexical form *you*, we arrive at this picture of my second-person individuating mode:

$(you)(producing [sound at p])$.

Only by being whom I think of as *you*, the producer of the sound located at p , does Marsha become the object of my executive identification. Suppose I had focused on Marsha as *she* during this conversation, thinking

(3) She’d better not wear that around there then.

even while uttering (1). Then my executive individuating mode would be:

$(she)(producing [sound at p])$.

Alternatively, if the gender conveyed by ‘she’ belongs to the orientation, then there might be a neuter form common to both ‘he’ and ‘she’, representable as ‘*s/he*’, yielding this mode:

$(s/he\ female)(producing [sound at p])$.

Were (1) to reflect a *direct* second-person identification, if such a thing is possible, then the mode would fit this schema:

$(you)(identical\ to\ [person\ at\ p])$

or, more simply,

$(you)([person\ at\ p])$.

However, if direct awareness of a person is out of the question and identification is vicarious upon the appearance of sensory qualities A, B, C located at position p , say, then the mode takes this format:

$(you)(appearing\ as\ [A,\ B,\ C\ at\ p])$

If my perspective is determined by a point of origin (d,v) then the following depict the modes associated with my use of ‘today’ and ‘here’ in thinking (3):

(*today*)(interval that includes [d])

(*here*)(place that includes [v])

If we balk at accepting volumes or durations as immediate contents in themselves, and insist that additional factors be included, say, a colored expanse at a place or a sound at a time, then the immediate content associated with my ‘today’ and ‘here’ can be depicted as $c(d)$ and $c(v)$, with the modes fitting the schemata,

(*today*)(interval that includes [$c(d)$])

(*here*)(place that includes [$c(v)$])

respectively. Suppose that instead of (1), (2), or (3), I had picked out Marsha visually as *that lady* in thinking,

(4) That lady had better not wear that badge around here today.

Then, if the relevant immediate contents whereby I pick out Marsha are the qualities A, B, C located at position p , my mode would take this format:

(*that lady*)(appearing as [A, B, C at p])

or, taking ‘lady’ to express what belongs to the orientation rather than the form,

(*that*)(lady appearing as [A, B, C at p])

or, again, depending upon one’s view of immediate contents,

(*that*)([lady at p]).

Plainly, other philosophical considerations, say, one’s view of immediate perceptual contents, bear upon the correct analysis in any case.

Consider, finally, Marsha’s use of the first-person in,

(5) I had better not wear this around here today. .

There is room for speculation about the proper description of the individuating I mode. The I form is one element, and if the immediate content is a particular act of awareness A whose position is the point of origin (d,v) , we have this analysis:

(I)(having [A at (d,v)]).

On the other hand, if personhood is part of the orientation and not part of the *I* form, we might have,

$$(I)(\text{person having } [A \text{ at } (d,v)]).$$

Then again, if what one is presented within internal reflexive self-awareness (Castañeda 1999, 256) is a *person*, viz., the very person one is, then the individuating *I* mode reduces to,

$$(I)([\text{person at } (d,v)]).$$

Whatever the correct depiction of the individuating self-mode is, all of the proposed analyses suggested here are tentative; the hypothesis that all individuating executive modes conform to the general pattern $k(R[c(p)])$ does not depend upon their accuracy.

A form of encounter k , a position p , an immediate content $c(p)$, and an orientation $R[c(p)]$ are ingredients in what the thinker grasps in executing an indexical reference. But third-person descriptions of the spatio-temporal standpoint o , the agent Y , and the modality of consciousness m —however critical for accurate interpretation—remain external to the executor's cognitive significance. Y does not have to be aware of being Y , of being located at o , or of experiencing visually, auditorily, etc. to have a thought indexed by these factors (cf. McGinn 1982, 209; Corazza 1994, 325). Nor does he or she have to identify the occurrence of his or her act of thinking (speaking) in order to pick out a referent, even though the act of identification could not be successful apart from the referent's having a status within the perspective fixed by that occurrence. It is unreasonable to require all the necessary conditions for identification to be internal to the cognitive processes involved. Nonetheless, a kind of reflexivity is preserved; since the properties in terms of which indexical execution occurs are determined by the perspective (o, Y, m) , then, paraphrasing Perry (1997, 594), a defining feature of indexicals is that from the speaker's point of view "the meanings of those words fix their designations in terms of facts about" the act of identification from which they ensue.

6. Conclusion

While a distinction must be made between indexical interpretation and indexical execution, both incorporate context-sensitive meanings that operate conjointly with contextual parameters to yield individuating modes and, hence, indexical identifications. The standard utterance-reflexive accounts of these parameters may be suitable for the interpretation of an indexical token, but it fails to explain the thought processes that underlie its execution by a speaker. Instead, I have presented an account in terms of an item's having a particularized indexical status in relation to a position *within* a speaker's perspective. No doubt this introduces an element of privacy, egocentricity, or subjectivity into the *contents* of thought that might be thought as posing a challenge to certain reductionistic or naturalistic accounts of thinking. But this is material for another essay.

NOTES

1. See, for example, John Perry (1997) who writes “. . . a defining feature of indexicals is that the meanings of these words fix the designation of specific utterances of them in terms of facts about these specific utterances” (p. 594). Roughly, a *context* is the setting of an event such as an utterance (Russell 1948, 92) or, to accommodate indexical mental representations, the setting of a psychological state. There are many who construe context broadly to include not only the thinker/speaker, time, and place of the occurrence but other relevant features of the utterance as well, e.g., the accompanying gestures, intentions, beliefs, etc., in short, "whatever parameters are needed" (Kaplan 1989, 591, and see also Perry 1997, 595). While more restricted notions of context are urged in Bach 1987 and Braun 1996, I simplify the present exposition by adopting the broad notion. While the description of indexicals as “utterance-reflexive” is taken from Perry 1993, 299, the idea is common to accounts that differ from Perry’s own in other respects, for example Searle 1984, 221, and Millikan 1993, 266-267. Garcia-Carpintero 1998 is a recent attempt to explain indexicals in terms of token-reflexivity.
2. Stefano Predelli argues that the use of indexicals in recorded messages is evidence against the “traditional view” of indexicals according to which indexicals “are always correctly evaluated by taking into consideration the context of utterance (or inscription)” (Predelli 1998, 401). He thinks that the evaluation must look to the “intended context of evaluation,” though he does not define this latter notion. To be sure, what the speaker referred to depends on what the speaker’s intentions were, but an interpreter can ascertain these intentions only by attending to the context in which the utterance is perceived. Perhaps the latter is what Predelli means by an “intended context of interpretation,” but it seems more accurate to count the context in which the utterance is *processed* as the gateway to the speaker’s intentions. If so, then content is still determined by means a “context of utterance” even if this sort of context is not quite what the “traditional view” means by ‘context’. For more on schematic and non-indexical uses of such linguistic types as ‘now’, ‘here’, ‘you’ see Smith 1989, Nunberg 1993, 20-21, and Bezuidenhout 1997a, 184.
3. Perspectival approaches to indexicals are developed by a number of writers, e.g., Russell 1948, 91-93; Castañeda 1967, 1989a, chp. 4; Evans 1982, chp.6; McGinn 1983; Lyons 1995, 304-339; Hintikka 1998.
4. This use of ‘executive’ is borrowed from Castañeda 1986, 111; 1989a, 68. Those impressed by the image of *consumption* as the key to understanding the representative functions of language (Kaplan 1989b, 602-3; Millikan 1993, 86-88) are apt to neglect the executive aspect of language use. Undoubtedly we are born into linguistic communities and are constantly exposed to words with prepackaged meaning before we utter them or think in their terms. Our exposure to indexical types is no exception, and we could not begin to use them without first grasping their meanings. Yet, consumption of language, like consumption of canned goods, requires commodity production and exchange; "language

must be spoken before it is heard and interpreted" (Castañeda 1989b, 116). We *use* indexicals creatively to articulate the details of our immediate experience, and we do so in virtue of their publicly accessible meanings. The child who has advanced from babble to demonstratives like 'dat' manifests a creative act of distinguishing something within sensuously delivered material. He or she "consumes" in acquiring the capacity to use an indexical type meaningfully, yet "produces" the demonstrative token in order to pick out and express what it cannot distinguish by other means.

5. François Recanati accounts for the difference between speaker's and hearer's procedures by differentiating "psychological modes of presentation" used in indexical thoughts from the "linguistic meanings" conventionally associated with indexical types (Recanati 1993, chps. 4-5, and see Bezuidenhout 1997b, 213-215). Yet, in retaining a parity of linguistic meaning to account for communication (Recanati 1993, 86), and in not providing for the derivation of psychological modes from meanings, Recanati cannot explain the role of indexical meaning in the genesis of executive identification. I find it difficult to understand his exposition on this matter. While he claims that he supports a "classical, token-reflexive" analysis of linguistic meaning governed by one set of conventions, he also speaks of *types* of psychological modes of presentations associated with types of indexical expressions (Recanati 1993, 85, 92 n. 4). Unless I am mistaken, he effectively grants that each indexical *type* is conventionally associated with a cognitively accessible *mode* that is capable of guiding token production but is not utterance-reflexive. It eludes me how this is not an acknowledgment that meaning parity fails for indexical types.

6. Coordination requires that for a full understanding of an indexical utterance the interpreter must be able to attribute indexical thought to the speaker. Systematic accounts of this are developed in Castañeda 1967, 1983, Forbes 1987, and Kapitan 1998. The duality view of indexical meaning is hinted at in Castañeda 1983, 323-325. He writes of "two crucial purposes" served by the semantical rules governing singular reference, namely, (1) to provide criteria for application of singular terms by a speaker and, (2) to provide criteria for an interpreter, where the rules are said to serve purpose (1) prior to, and in order to serve, purpose (2). Yet, in his sole illustrating example, two distinct rules for 'I' are given, making it clear that the speaker *qua* executer does not follow a rule of interpretation. Consequently, Castañeda's distinction between the two purposes strongly suggests meaning-duality of indexicals.

7. What I am here calling the "identification principle" is a familiar Fregean claim. It is similar to what Gareth Evans labeled "Russell's Principle," that one cannot *think* about a particular object without having discriminating knowledge about it (Evans 1982, 89). I choose not to conflate these principles because of what some understand "discriminating knowledge" to involve, viz., an ability to track or reidentify an item (thus, Bach 1987, 43-45). Identification, as I understand it, requires no such abilities.

8. An objection to the identification principle stems from the possibility of

misidentification. I might succeed in calling your attention to someone with ‘the man drinking a martini in the corner’ when the person in the indicated corner is neither a man nor drinking a martini. My error was not that I failed to identify something, but that I misdescribed the object of my thought due to my mistaken belief. Still, some discriminating feature *of* my referent was operative in my thinking, one that might be more accurately conveyed by ‘the person drinking in the corner’ or ‘that one over there’, even if unexpressed. And you—unless you are an unbending literalist—might have determined my referent by keying into the interpretative meanings associated with these latter expressions. Let us say that a mode M1 is *implied* by a mode M2 if something were M2 then it would be M1. Mode M1 is *operative* in X’s identification of Y at t just in case there is a salient mode M2 by which X distinguishes Y at t such that (i) M1 is implied by M2, and (ii) X is committed at t to the conditional: if something were M2 then it would be M1. In the martini case, both the mode of *being the person drinking in the corner* and that of *being that one over there* are operative in X’s identification inasmuch as X tacitly accepts their implication by the salient mode, *being the man in the corner drinking a martini*. Evidence for this would be X’s willingness to shift to reference via these modes were his expressed identification corrected. The identification principle requires only that in identifying an item *some* operative mode is uniquely satisfied by it, and there is no need that the latter be separately articulated in order to be operative.

9. Bach 1987, 44, and see also pp. 19-26. Others who take causal relations to be the critical factors linking the object to the state of thinking-about include Fitch 1990, Hanna 1993, and Lalor 1997.

10. Individuating indexical modes are acknowledged in Castañeda 1967, 90-91 and 1989a, 76; Evans 1985, 320; and Recanati 1990, 1993, chp. 4. Pruium (1996, note 9), offers two objections to such proliferation of meanings. First, positing a special sense for each indexical token would require one to master too many meanings in order to use indexicals. Second, meaning is transparent in the sense that the user can tell if two terms have the same sense, but it seems that I do not associate different senses with different tokens of ‘today.’ In reply to the first objection, what we need to “master” in the sense of acquiring an permanent linguistic disposition, are the meanings or characters associated with the types. Each is a schema that enables us to grasp individuating indexical modes once suitable contextual parameters are supplied. These modes come and go with change of context (perspective), but the cognitive demands placed upon us are no more and no less than the many indexical discriminations we make, and this is as it ought to be. To the second objection, I can indeed tell the difference in senses between distinct tokens of the same indexical type when they do differ. I know that the duration I now pick out with ‘today’ is different from the one I referred to with the ‘today’ I uttered yesterday. How so? Because I realize that the tokens express the distinct perspectives from which they ensue, perspectives that are themselves presented in the identificatory acts. But then I grasp their different senses. At the same time, distinct tokens of the same type indexed to the same *episode* of thought may indeed express exactly the same senses. It must be noted that it is a separate

issue whether executive modes are propositional components. Direct reference theorists have denied this (e.g., Kaplan 1989, 568-569; Nunberg 1993, 17-18), but against their view are the arguments of Castañeda 1989b, 129-131, Bezuidenhout 1996, 146-147, and Kapitan 1998, 195-196.

11. If perspective shifts with each token then there would be no trivial identities expressible through indexicals, yet many *unsurprising* cases of *this is this* seem to be just that. Identification takes time, so the temporal component of a perspectival may be as thick as the duration of the gross psychological event. Not every token of an indexical type requires a different perspective.

12. The phrase ‘point of origin’ appears in Evans 1982, 154, to designate the locale of the thinker within his or her own egocentric space. Other writers speak of the ‘locus’ of the speaker (Hintikka 1998, 208), the ‘zero-point’ of a locutionary act (Lyons 1995, 304), or the ‘seat’ of a physical feeling (Whitehead 1929, 472-477).

13. On this analysis, ‘now’ designates a time (a duration) only as a (temporal) position within a perspective. Smith 1993, 126, provides an example of this view by describing the cognitive significance of ‘now’ in terms of the moment that has presentness and includes the complex psychological event composed of my present experiences. I borrow the term ‘array’ from Gibson 1979 which uses ‘ambient optical array’ to describe the immediate contents of visual awareness, each of which is a pattern of different intensities of light determined by the layout of light-reflecting surfaces yielding information about objects.

14. A description of indexicals in terms of spatial and temporal locale is given by William James who wrote that the expressions ‘I’, ‘here’, and ‘this’ are “primarily nouns of position” (James 1904, 86). He seemed willing to generalize this to all indexicals. Castañeda spoke of demonstrative or indexical properties that “fix” positions in spatio-temporal fields (Castañeda 1977, 320 and 1986, 111). See also, Evans 1982, chapter 6, and Forbes 1989, 470.

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