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Indexicals as Demonstratives: on the Debate Between Kripke and Künne¹

Abstract: This paper is a comparison of Kripke's and Künne's interpretations of Frege's theory of indexicals, especially concerning Frege's remarks on time as "part of the expression of thought". I analyze the most contrasting features of Kripke's and Künne's interpretations of Frege's remarks on indexicals. Subsequently, I try to identify a common ground between Kripke's and Künne's interpretations, and hint at a possible convergence between those two views, stressing the importance given by Frege to nonverbal signs in defining the content of thought. I conclude by indicating a possible direction for further research.

In "Frege's Theory of Sense and Reference: Some Exegetical Notes" (*Theoria*, 74, 2008), Kripke suggests a new interpretation of Frege's analysis of indexicals², criticizing many previous treatments of the subject: Perry's "completing senses", Burge's distinction between sense and linguistic meaning, Künne's "hybrid proper names". He accepts, and shares with all these authors, Frege's view that some sentences do not express a complete thought and that certain context elements (time, location, speaker and demonstration) are needed to complete the thought. I concentrate here mainly on two of Kripke's more original points, organized on the conception of autonymous sense: (i) the interpretation of Fregean sense as linguistic meaning; (ii) the role of nonverbal components. I will deal with the discussion of these two points made by Künne in "Sense, Reference and Hybridity, Reflections on Kripke's Recent Reading of Frege" (*Dialectica*, 64, 2010). After reviewing some of Künne's arguments against Kripke, I will try to find a way out of this debate, using the limited amount of "exegetical" agreement on Fregean ideas which Kripke and Künne share.

The first half of Kripke's paper is devoted to an analysis of indirect contexts, where – according to Frege – there is a shift of reference: in indirect context, e.g. belief contexts, we do not refer to standard reference, but to indirect reference (we refer to the thought expressed, not to its truth value). Frege's theory implies a hierarchy of indirect senses which has been accepted and formally developed by Church, while criticised by Carnap, Dummett and Davidson, for various reasons. Kripke accepts the idea of the hierarchy of indirect senses and renders the assumption easier to accept by means of an analogy with a hierarchy of "direct" quotations. In direct quotations, as Carnap used to say, words refer *autonymously*, that is, they refer to themselves. But a *way to refer* is exactly what a sense is; therefore we may think that senses, too, refer autonymously to themselves in indirect contexts.

The second part of Kripke 2008 is an application of his theory of autonymous reference to the treatment of indexicals. Kripke relies on the best known passages in Frege's later works concerning indexicals and tries to interpret these passages within a unified theory of the sense and reference of indexicals. The task is difficult indeed, because Frege never actually worked out a proper theory of indexicals, but left many scattered suggestions and hints that allow for different interpretations of what the sense and the reference of an indexical may be. With his reinterpretation of Frege's theory of indexicals within his theory of autonymous reference, Kripke claims to surpass Kaplan's interpretation of the "Fregean theory of demonstratives", and to give a more appropriate rendering of Frege's view on indexicals. However, although Kripke's account of the Fregean theory of indexicals has been accepted by some authors (e.g. Chalmers 2011, footnote 10), it deserves a careful examination because of the difficulties individuated and discussed by Künne 2010.

1. Kripke and Künne on the Fregean Conception of Sense

Kripke identifies an initial difficulty in a claim presented by Frege in "Der Gedanke":

¹ This paper was originally presented at the 7th European Conference in Analytic Philosophy (Milano 2011), although some of the ideas were also discussed at the 6th Spanish Meeting in Analytic Philosophy (La Laguna 2010) and at the Eidos Center at the University of Genève. I wish to thank all the participants in the discussions, particularly Genoveva Martì, Marina Sbisà, and Aldo Frigerio for comments that helped me to clarify some unclear aspects, and Filippo Domaneschi, Diego Marconi, Massimiliano Vignolo and anonymous referees for comments and suggestions on a previous version of the paper.

² I take for granted here the classification of indexicals as a semantic class (including "I", "Now", "Here", "Today"), introduced by Kaplan (1989 § II) and presented by Perry (1997, 2001, pp. 58-63), who makes further specifications and adds a new classification.

If someone wants to say today what he expressed yesterday using the word "Today", he will replace this word with "Yesterday". Although the thought is the same, its verbal expression must be different. [Frege 1918, p. 64; Engl. Tr. p. 332]

Commenting on this, Kripke says: "If Frege really meant that we have expressed literally the same thought again, it is very hard for me to see how to reconcile this assertion with his other doctrines" (p. 204). The main doctrine to collapse would be Frege's theory of the compositionality of thought. The thought is the sense expressed by a sentence; according to Frege, the sense of a sentence depends on the sense of its constitutive parts. Kripke remarks that, although the two tokens "Yesterday" and "Today" uttered on subsequent days indeed refer to the same day, "they plainly pick it out in different ways, paradigmatic cases of different senses." (p. 204) Two sentences such as "Today is F" and "Yesterday was F" have different constitutive parts ("Today" vs. "Yesterday") with different senses; therefore, the two sentences must always express different senses, *contra* what Frege literally says in the above quotation.

Kripke assumes that Frege's sense must be identified with linguistic meaning. This identification is firmly rejected by Künne, who provides evidence from Frege's texts on this point. Künne quotes Frege's examples of sentences with the same sense, but composed of different words and therefore endowed with different linguistic meanings. Sentences like "It is raining", "It is true that it is raining", "Fortunately it is raining" - Künne remarks -"have different lexico-grammatical meanings, but according to Frege they have the same incomplete sense." (Künne 2010, p. 536) This criticism could also be enriched by the idea, frequently entertained by Frege, that differences in grammar or in the lexicon (like "duck" and "drake" or "dog" and "mongrel") contribute to the tone of a sentence and not to its sense (see Picardi 2007). The terms used in Frege's examples are not strictly synonymous, and sometimes are pejorative terms, or terms with specifications such that the meaning of an expression contains aspects not contained in the other piece of lexicon. For instance, the meaning of "drake" can be decomposed into "it is a duck and it is male"; differences in lexical meaning may also imply differences in logical form, but this may be compatible with sameness of thought, as in (i) Donald is a male duck and (ii) Donald is a drake, as Künne (2007, p. 100) remarks. According to Künne, these two expressions are two different ways of articulating the same thought. Concerning the criticism of the identification of sense and linguistic meaning, therefore, Künne's analysis requires that the distinction between a thought and different ways of articulating a thought be taken into account (Künne 2007; see also Kemmerling 2008), which is not so distant from many other analyses of Frege's ambiguity in treating both cognitive and semantic aspects of the concept of sense (see for instance Penco 2003). His criticism therefore reinforces the classical criticism of the identification of sense and linguistic meaning offered by Burge 1979, 1990 (see Penco 2013). However, it remains to be verified whether this criticism may also impinge on Kripke's treatment of indexicals.

In fact, criticizing the identification of sense and linguistic meaning does not imply an overall rejection of Kripke's claims. The main core of Kripke's analysis of indexicals is untouched by such criticism and contains useful suggestions. Therefore, I will not further discuss the problem of the identification of sense and linguistic meaning, and I will present the basic core of Kripke's treatment and thereafter evaluate Künne's reaction and counterproposal. The second main disagreement between Kripke and Künne concerns a specific point in the interpretation of Frege: the role of time and other nonverbal features as parts of the expression of the thought.

2. Kripke on the Role of Time as Expression of the Thought

One of Frege's best known claims on the concept of thought is that

only a sentence with the time-specification filled out, and therefore complete in every respect, expresses a complete thought (Frege 1918, p. 76).

Some might think that Frege is suggesting a translation of every sentence with the explicit specification of time and place (something like Quine's eternal sentences), but Frege's idea is probably different, given his criterion of the intuitive difference of cognitive senses; a person may believe "Today it is raining" to be true, and not believe "On 01.01.2013 it is raining in London", even if the second sentence refers to the same day on which "Today is raining" was uttered in that place. Therefore, even if we translate a sentence making time and location explicit, we still have a cognitive difference between the two sentences. This point is actually at the origin of the idea of the irreducibility of indexicals, as presented first by Bar-Hillel and later reaffirmed by Castañeda (1967, 1968) and

Perry (1977, 1979).³ The irreducibility claim implies a necessary reference to contextual features, and further evidence on the presence of this claim in Frege is provided in a much debated passage where Frege speaks of time as "part of the expression of the thought":

If a time-indication is conveyed by the present tense one must know when the sentence was uttered in order to grasp the thought correctly. Therefore the time of utterance is part of the expression of the thought. (Frege 1918, p. 76)

The best known consequence of these remarks is that the mere wording of a sentence is often not enough to express a truth-evaluable thought, and therefore requires supplementation. What kind of supplementation? What does it mean that the time of the sentence is "part of the expression of the thought"? Different ways of answering this question constitute the core of the contrast between Kripke and Künne. Kripke comments upon the above quoted Fregean passage remarking that a sentence like

(2) "It is raining in Stockholm"

is incomplete, because "it is raining" has an incomplete sense. Therefore, we should find a way to represent the thought expressed as an ordered pair:

<L, *t*>

where L is the piece of language ("It is raining in Stockholm") and t is the time of utterance, which is "an unrecognized piece of language" (p. 202).

There are two features of Kripke's solutions that – according to Künne – raise major problems for a correct interpretation of Frege's ideas: (i) the assimilation of indexicals to functional expressions; (ii) the application of autonymous designation to indexicals. These are two kernel features of Kripke's treatment, and they deserve some clarification before considering Künne's criticism⁴.

Given that Frege used the concept of incompleteness to speak of functions, it is easy to conceive of a sentence containing a time expression (be it an indexical like "Today", or the present tense of a verb) as containing an incomplete function to be saturated. Accordingly, Kripke interprets the Fregean claim that the sense of an indexical expression is incomplete as if the indexical expression denoted a function. Functions are inherently incomplete, until they are "saturated" by an object. Therefore – following Kripke – an indexical like "Today" will denote a function which has to be applied to the time of the utterance; once applied to the time of the utterance, "Today" yields the day containing the time of the utterance (analogously, "I" denotes a function which maps each person to herself, and so on).

The main problem concerns the role of the nonverbal part of the expression. Frege says

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³ The same point can be made explicit also by the "trivialization argument": "Today is August 24, 2012" has a clear informational content for somebody not knowing the date of the present day; on the contrary "August 24, 2012 is August 24, 2012" seems to have no information content. See Künne 2003, p. 276.

⁴ A third central feature of contrast, on which we do not further develop our discussion, is the role of acquaintance in Kripke's interpretation of Frege; Kripke uses the Russellian concept of acquaintance to fill a gap in Frege's explanation of the "mysterious" process of our understanding senses; this solution is strongly criticized by Künne. A more favourable interpretation of how to apply Russell's notion of acquaintance to Frege's treatment of indexicals is given by Yourgrau 2012, although he considers Kripke's account of the hierarchy of senses "implausibly baroque" and poses some doubts regarding the specific way Kripke uses the notion of acquaintance in this setting.

that time is "part of the expression of the thought"; following Frege's compositionality principle, each expression should have a sense and a reference which contribute to the sense and reference (truth value) of the thought expressed. Again following an argument from compositionality, Kripke says: "How after all can something be a part of the expression of a thought and not have a Sinn that is part of the thought?" (Kripke 2008, p. 202, fn 60). The problem remains as to what the sense of a time as part of a thought might be. To answer this question, Kripke resorts to his idea of "autonymous senses" developed in his analysis of indirect speech given in the first part of the paper. Time, as part of the expression of a thought, is an autonymous designator of itself, just as in the case of quotation: "The speaker (or writer or thinker) is acquainted both with the time of utterance (or writing or thought) and he must be acquainted with the *Sinn* as well, a *Sinn* of autonymous designation." (Kripke 2008, pp. 202-3) Analogously, the subject will be an autonymous designator of herself in completing the verbal part "I": "just as the time used autonymously completes the expression of the thought, so the subject also taken as an autonymous designator of himself, completes the expression of the first person thought" (Kripke 2008, p. 212). This solution, on the one hand, gives Frege a way out of Kaplan's criticism of Frege's theory of indexicals, through a denial of the synonymy of "I" and "The speaker in the context" and, on the other hand, gives an alternative solution to Künne's theory of "hybrid proper names", developed in Künne 1992.

3. Künne's Hybrid Proper Names

Künne 2010 offers a strong defence of his previous treatment of the subject in Künne 1992 and – as said before – attacks two points of Kripke's interpretation: the idea that indexical expressions are functions and that times or persons are autonymous designators of themselves. Künne relies on a passage in Frege's posthumous writings dealing with complex demonstratives such as "that man":

I can use the words 'this man' to designate now this man, now that man. But still on each single occasion I want to designate just one man . . . The sentence that I utter does not always contain everything that is required; something has to be supplied by the context (*Umgebung*), by the gestures I make and the direction of my eyes . . . A concept-word combined with the demonstrative pronoun . . . often in this way has the logical value of a proper name in that it serves to designate a single determinate object. But then it is the whole consisting of the concept-word together with the demonstrative pronoun and accompanying circumstances which has to be understood as a proper name. (Frege 1914, p. 230; Engl. Tr. p. 213)

Following this remark, Künne claims that demonstratives and indexicals are to be considered as some kind of "hybrid" proper names (hybrid singular terms), consisting of a linguistic part and a non-linguistic part, which can be a demonstration, a time, a place or a speaker. The main stance of Künne is summarized as follows:

Neither the verbal part of a hybrid singular term nor, of course, its nonverbal part is a *function-sign*. Neither the non-verbal part of a hybrid singular term nor, of course, its verbal part is a *singular term*. But the result of combining a word of phrase with a time, a place, a speaker or an act of demonstration is a singular term that by itself designates something. (Künne 2010, p. 545)

I am really uncertain as to how fundamentally Künne's idea of "hybrid proper names" differs from Kripke's basic treatment of indexical expressions as ordered pairs of verbal and nonverbal

component expressions. In fact, a Fregean sentence (which is, in his latest writings, a kind of "proper name") is exactly the result of filling a functional expression with an argument. Therefore insisting on the idea of treating indexicals as hybrid proper names in contrast with treating them as functions which have to be applied to times (or locations or persons) in order to become complete referring expressions (singular terms) seems not to amount to radically alternative claims, although, from an exegetical point of view, the idea of a "hybrid proper name" is respectful of Frege's quotations (see Künne 2010a, pp. 455-466).

However, there are clearer and deeper differences between Künne's and Kripke's interpretation of Frege, and one of the main points of contrast concerns how to interpret the Fregean idea that time is "part of the expression of a thought". Let us again take the example:

(3) "Today it is hot."

We have seen that, according to Kripke, the thought expressed can be represented as an ordered pair with a verbal and a non verbal part <"Today it is hot", t>, where t is the time of utterance, the nonverbal part (an "unrecognized piece of language") of the expression of the thought. Künne rejects the idea that the time of the utterance is an expression which has an (autonymous) sense and a reference of its own. According to Künne, "Today" is a singular term that refers to a day, and the contribution of the time of the utterance is not analogous to the contribution of the argument of a function and does not have a sense and reference of its own; they are not signs with autonymous designation. On the contrary, times or persons, not having sense and reference of their own, directly contribute to the formation of the sense of the hybrid singular term. Künne argues as follows: "How could a time possibly designate anything? A time of utterance is something one can neither understand nor misunderstand, so how can it have a Fregean Bedeutung?" (Künne 2011, p. 541) The argument is very short; it is just a reaction against the idea that a time may have a reference, given that a time is itself a referent (just like a place or a person). If we accept the premise that an expression like (3) is a functional expression that needs supplementation in order to become an expression of a complete thought, that is a thought that has a Bedeutung, "the conclusion follows that what supplements it has a *Bedeutung*, and in our case it would have to designate itself. But isn't this a good reason for rejecting that premise?" (Künne 2010, p. 541) By means of a similar argument, Künne rejects the idea that we can attribute (autonymous) senses to times and persons: "How could a time possibly have (express) a Fregean sense? A time of utterance is nothing one might understand or misunderstand, so how would it have a sense?" (Künne 2010, p. 542)

Künne is thus trying to kill two birds with one stone: by rejecting the idea that a piece of time might designate itself as a *Bedeutung*, he also rejects its presupposition, that we need functional analysis to account for sentences with indexicals. But he faces a major difficulty: assuming the Fregean claim that "time is part of the expression of the thought", Künne's interpretation – claiming that time intended as part of the expression does not possess sense and reference of its own – runs the risk of missing a central feature of the Fregean account: compositionality. A thought is composed of parts corresponding to the parts of a sentence: as an entire sentence expresses a sense or a thought, each component part of the expression should express a sense. Kripke's treatment of indexicals can nicely account for the idea of compositionality of senses: in his treatment, each expression has a sense and a reference, hence *prima facie* it seems more appropriate to represent a good interpretation of Frege's theory.

Künne reacts to this problem with an original move: Kripke bases his analysis on the idea (not explicitly stated) that *every* part of the expression of a thought must have a Fregean sense that is part of the thought. But, according to Frege's own examples, not *all* expressions in a sentence have a sense and a reference, and many Fregean remarks explicitly deny this. Künne

takes the example of the copula "is", which has no sense or reference, yet still functions normally in most sentences in natural language; another example is "Unfortunately Sam smokes", where "unfortunately" does not contribute to the sense of the thought that Sam smokes. Here Frege would regard "unfortunately" as contributing to the tone and not to the sense of the sentence. From these and other Fregean examples where components of the sentence do not necessarily express a sense that is part of the thought expressed, Künne can assert that something may be part of the expression of a thought without having a sense or reference. This leaves room for his positive proposal to treat indexicals as "hybrid proper names", where indexicals need to join features of the context in order to be properly endowed with sense and reference; we do not need to transform an objective feature of the context – time – into a trinity which is simultaneously an expression, a sense and a reference. Time is just a part of the complex hybrid singular term, thereby giving indexicals a complete sense and reference.

4. What Is Shared Between Kripke and Künne

Who is right? There is probably no possibility of extracting an account of indexicals that would be coherent with *all* Fregean remarks. On the one hand, the solution proposed by Kripke is neat and promising, but the strong intuitions put forward by Künne concerning the difficulties of treating a time simultaneously as an expression, a sense and a reference make it difficult to accept Kripke's solution without reservations. On the other hand, Künne's proposal of hybrid proper names has incurred strong criticisms for its apparent complication⁵. In what follows, I will attempt to take what is shared by both authors, and see what happens if pursued further.

There is, actually, a point where Kripke and Künne agree: Frege's theory of demonstratives. For both Kripke and Künne, Fregean demonstratives can be represented as a connection between a linguistic part ("this", "that") and a demonstration, where the demonstration is a nonverbal sign. While Künne criticizes the idea of treating times and persons as signs with sense and reference, he remarks that demonstratives have a particular characterization that differentiates them from other indexicals: (i) the nonverbal part of a hybrid singular term with a demonstrative is *itself* a sign, and (ii) as signs the demonstrations can be misunderstood (Künne 2010, p. 454). In saying this, Künne implicitly admits that demonstrations may have a sense and reference of their own.

If we look closer at Kripke's interpretation of Frege, we notice a particularly interesting remark: the senses of statements containing demonstratives and indexicals "are completed by senses given by objects that autonymously designate themselves, or sometimes by gestures such as pointing, whose senses are that the object pointed to is what is designated." (2008, p. 203, n. 62) Kripke, too, therefore considers a relevant difference between pure indexicals and demonstratives: on the one hand, he develops a theory of autonymous designation for indexicals, on the other hand, he entertains the idea of gestures or demonstrations as signs that are part of the expression of a thought. It is easy to attribute both sense and reference to demonstrations as nonverbal signs, without the difficulties raised by Künne against the theory of autonymous designation concerning time, location and speaker. Furthermore, according to Kripke (2008, p. 203, n. 60), "the *Sinn* [of a demonstrative] is the rule connecting a demonstration such as pointing to its object"; Künne elaborates this remark of Kripke's with the following phrasing: "an act of ostension has for its demonstratum, if anything, the object the agent deliberately makes salient by her act". (Künne 2011, p. 534)

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⁵ The idea of "hybrid proper names" has been criticised by Harcourt 1993 in a way that anticipates some of my suggestions, as will be clear later.

Here lies a very important point of contact between the two disputants: if on the difference between sense and linguistic meaning and on the treatment of pure indexicals they tend to diverge, they converge towards a common account of demonstratives. A treatment of demonstrations has been widely discussed, after Kaplan⁶, by Textor 2007, according to whom gestures (demonstrations) are nonverbal signs and, as such, express a sense and a reference, the sense being the mode of presentation of the object referred to (which is why, in identities such as "that is identical with that" said pointing to different parts of an object, the two occurrences of "that" have different senses⁷). I think we might extend Textor's view by interpreting this convergence between Künne and Kripke as a tool to be extended to all indexicals, even "pure indexicals". A first challenge is to see how this approach can be extended to the indexical "I" (whose purity has already been challenged in different ways (Predelli 1998, Bianchi 2009).

First of all, demonstration is a vague concept; is it just the act of pointing? Or can it be considered in a more general way? As Künne remarks, the utterance "This is a horrible noise" might be interpreted as a "limiting case of ostension: the act coincides with uttering that sentence, since the utterance suffices for making the topic of the thought salient" (Künne 2011, p. 534). This use of demonstratives points towards a broader notion of demonstration: a demonstration may be given not only by a pointing gesture, but, e.g., by the position of the speaker at a location, or by her uttering a sound. If I am in a position where it is possible to see clearly a salient object, I need no pointing gesture to make me understood in saying "that is F"; however, if I am in a position where the salient object is not in clear view, I need to use a specific act of demonstration⁸. In this wider interpretation, the uttering of "I" is a kind of demonstration, which points to the speaker⁹. We might take the sense of "I" as given by the demonstration realized by uttering the word "I" as if the speaker were pointing to herself: the action of uttering is the nonlinguistic part and the lexical item "I" is the linguistic part. This step does not mean that "I" is synonymous with - or has the same linguistic meaning as - "this speaker", but that understanding the sense of "I" implies an understanding of the way in which somebody, uttering "I", actually points to herself, using a demonstration by the same act as uttering "I".

A specification is required: how can two expressions be non-synonymous and still have the same sense? The answer lies in rejecting – following Künne – the identification of sense and linguistic meaning¹⁰; it is apparent that "I" and "this person speaking to you" have different

⁶ Kaplan (1989 sec. IX) says that Frege's theory of demonstrations is a portion of the Fregean theory which he accepts: "the Fregean theory of demonstration claims, correctly I believe, that the analogy between descriptions ... and demonstrations is close enough to provide a sense and denotation analysis of the 'meaning' of a demonstration" (p. 514). It is beyond the scope of this paper to argue against Kaplan's criticism of a Fregean theory of demonstratives, but I think it is relevant to point out the basic assumption of Kaplan's criticism: indexicals, in their demonstrative uses, are *synonymous* with the corresponding definite description ("the male at whom I am pointing"). However a new discussion on what "synonymy" means is required after the new distinctions about the concept of meaning generated by Kaplan's ideas and developed, for instance, by Russell 2008.

⁷ The original example comes from Kaplan 1989, considering a "very slow" demonstration of Hesperus and Phosphorus, saying "that [pointing to Venus in the morning sky] is identical with that [pointing to Venus in the evening sky]". Perry 1977 (pp. 12-3, followed by Sainsbury 1998, Heck 2002, Textor 2007 and others) used a better example of a person pointing to a very long ship observed from two different viewpoints.

⁸ A more "structured" and conventional demonstration not requiring the act of pointing is given, for instance, in auctions, where the seller may say "this costs £...", where the placing of the object at the side of the seller can be considered as an institutional act of demonstration (suggestion by Marcello Frixione).

⁹ This point partly derives from Harcourt 1993, with the specification – that is missing in Harcourt – on *how* the sentence's being uttered by the speaker has specific relevance to the sense and reference of the indexical. If we consider the uttering of the sentence a kind of demonstration, we may arrive at a clearer explanation of the role of the act of utterance.

¹⁰ Russell 2008 has attempted to give a standard classification of different aspects of meaning: character, content, reference determiner and extension. The Fregean conception of (cognitive) sense seems a good

linguistic meanings; however, if we interpret the uttering of "I" as a demonstration, the uttering of "I" is a mode of presentation of the speaker which is mapped by the procedure of demonstrating ourselves. Analogously, we might paraphrase "today" as "this day", where the utterance of the speaker at that point in time is analogous to a gesture or a demonstration of that point in time. Also in this case "today" and "this day" do not appear to have the same linguistic meaning (although the former may be derived from the latter in the history of language, as is commonly accepted¹¹). But if we interpret the uttering of "today" as a kind of demonstration, then we could take the nonlinguistic demonstration as expressing a hidden demonstrative, and translate the uttering of "today" as an uttering of a complex demonstrative like "this day".

If, on the one hand – against Kripke –, we need to abandon the identity of Fregean senses and linguistic meanings, on the other hand, demonstratives perfectly fit the solution of a Kripkean ordered pair with a linguistic and a non linguistic part; "This F is G" can be schematized as <S, d>, where "S" stands for the linguistic part of the expression and "d" for the nonlinguistic part, that is the [act of] demonstration of the nonlinguistic relevant feature (time, person, location). Indexicals could therefore be logically expressed as a short form of complex demonstratives, where the linguistic part provides the sortal predicate and the nonverbal part provides the means to individuate the specific object (time, space, person) referred to. A token of "today" can be paraphrased as "this day", a token of "I" as "this speaker" or "this agent", and so on. Formalization of complex demonstratives may provide a tool for formalizing indexicals as well, where d stands for a demonstration:

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This table is flat \rightarrow ([this x, table x], d) Flat x
Today is sunny \rightarrow ([this x, day x], d) Sunny x
I am hungry \rightarrow ([this x, speaker x] d) Hungry x
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A first reaction on a proposal of this kind is the question whether we need to abandon the basic assumption of the irreducibility of indexicals. But this is not really so; on the contrary, this step should reveal the essential aspect of the irreducibility of indexicals as their essential dependence on extralinguistic features. No indexical can be reduced to a purely linguistic treatment; an essential aspect of all indexicals is a hidden demonstration, which can never be reduced to a purely linguistic device. Indexicals, as Perry presented them, are a semantic category: we might look for a unifying treatment of this semantic category along the lines given above, where the classification may depend also on the demonstration being more or less explicit.

5. Conclusion: Hints Towards a New Theory of Indexicals as Demonstratives

A further discussion of this research project is beyond the focus of this paper, which is mainly an exploration of the development of some theoretical features shared by Kripke and Künne. In this context, we have, however, a strong criticism to face: we may be considered as abandoning the Fregean account of indexicals based on his remarks on "time as expression of a thought", which was the main interpretative problem discussed by Kripke and Künne. The time of utterance, says Frege, "belongs" to the expression of a thought (Frege 1918, p. 76); how can we

approximation of the idea of "reference determiner" (at least more than the notion of character, which is apparently assimilated to the standard notion of linguistic meaning).

^{11 &}quot;Today" derives from "this day", as happens in other languages deriving from Latin (where "hodie" comes from "hoc die". A remnant of this is the common use of demonstratives referring to time: "this week you will finish your paper", "this month we will complete our research project", and so on.

account for that in our reduction of indexicals to complex demonstratives?

Everyone agrees that there is a very strict connection between the expression of the thought and the time at which the sentence is uttered; but it seems awkward to me to consider time as a "sign"; we have many nonverbal tools that are used together with words in expressing a temporal thought. Frege, insisting on the fact that the mere "wording", as it may be written or recorded, may be an incomplete expression of the thought, also says:

the knowledge of certain circumstances accompanying the utterance, which are used as means of expressing the thought, is needed for us to grasp the thought correctly. Pointing the finger, hand gestures, glances may belong here too. (Frege 1918, p. 64; Engl. Tr. p. 332)

Which knowledge is needed to grasp the thought? We typically think of time, location and speakers, but here Frege insists on physical actions like pointing, hand gestures and glances; we may also add the physical presence in the scene or the act of uttering a sound. All these physical acts of speakers can be considered signs that are ways of demonstrating the relevant features of the surrounding environment. We may give a reinterpretation of the idea of "time as part of the expression of the thought" as if Frege were suggesting that we look for nonverbal ways of demonstrating the time of the utterance, nonverbal signs which constitute proper parts of the expression of the thought, skipping the too literal interpretation that led to the most worrisome aspects of the Kripkean solution. Certainly Kripke's solution takes the Fregean wording at face value, but it seems that some of the consequences are counterintuitive, while other aspects of his treatment (the idea of the ordered pair) fit perfectly well in this setting, as does the idea of "hybrid proper names" suggested by Künne, limited to those parts of expressions of a thought (demonstrations) which are nonverbal signs, and which have a sense and a reference, answering Kripke's desiderata. In fact, with demonstrations we have nonlinguistic expressions with sense and reference, where senses are also defined by specific conventions needed to understand demonstrations (which may differ from culture to culture). Our main conclusion on this point is the following: it is not the time itself or the person herself that works as a sign – or as an expression – but rather the different ways to refer to persons, times or places, through demonstrations, through the actual uttering of a sound, through a definite position – presence – of the body at that place and time.

What I have suggested here is that this strategy is an interesting possible outcome of the debate between Kripke and Künne, relying on what they share, and what seems uncontroversial: their treatment of demonstrations. Both Kripke and Künne accept the idea that demonstrations have a sense and a reference, although they do not pay attention to the notion of demonstration in the analyis of "pure" indexicals. Following this hint, I think it could be interesting to attempt a unified treatment of indexicals as complex demonstratives, where the lexical item gives the sortal which helps to disambiguate the demonstration to the audience. Indexicals can be considered as "shortenings" of complex demonstratives, and as such, may also be misunderstood (as sometimes happens) coherently with Künne's desiderata for senses. Uttering "I" is a way to point to the speaker, but it may be misunderstood if the audience does not realize exactly where the sound comes from. Uttering "now" may be misunderstood if the hearer does not realize which kind of use is being made of the apparent connection with the actual moment of utterance. And so on.

The advantage of this approach – if properly developed – is that it provides an interpretation of Frege's theory of demonstratives which answers to the strong insistence given by Frege to the relevance of non linguistic matters in defining the sense of an indexical – and at the same time avoids the problematic or counterintuitive features we have found in Kripke's and in Künne's interpretations. In this treatment, the linguistic part provides the sortal predicate

and the nonverbal part provides the way in which the referent (a particular piece of time, location or person) is "given" to the speaker and to the hearer. The present proposal, if properly developed, has the following advantages in respect of previous solutions: (i) it offers a complete and simple Fregean theory which respects the compositionality of sense, still relying on strong textual evidence; (ii) it aims at providing a unified framework for treating demonstratives and indexicals, which might be developed as an extension of other contemporary theories like King 2001; (iii) it preserves the basic intuition of essential indexicals as devices of direct reference, still keeping it inside a Fregean setting.

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