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# Multiple grounding

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## 1. Devitt vs Kripke

In his work since the early seventies Michael Devitt has elaborated Kripke's nondescriptivist picture of reference. Reference, for Devitt, is based on causal relations to things in the environment. Reference thus understood (what Devitt calls 'designation'<sup>1</sup>) has to be distinguished from the start from denotation, which is based on satisfaction (of concepts by objects) rather than on causal relations. The distinction between reference and denotation is explicitly drawn by Donnellan (1966). Devitt's way of drawing the distinction is slightly different, but they share the basic idea that reference is fundamentally relational while denotation is satisfactorial (to use Kent Bach's catchy formulation<sup>2</sup>).

For Devitt an expression (token) refers to an object in virtue of a causal relation between the token and the object. In the case of proper names, to which Devitt devoted his Harvard dissertation (Devitt 1972), the relation can be split in two component relations :

The link between name and object has two parts – causal network and initial link to object (Devitt 1981a : 41).

Names, Devitt says, are 'basically anaphoric : reference borrowing is of the essence of their role' (Devitt 1981a : 45).<sup>3</sup> In the causal history of a particular use of a name are other uses of the name, from which it inherits its reference. This is similar to anaphora : just as the pronoun 'he' inherits the reference of its singular antecedent in 'I've just read Aristotle. *He* is a great philosopher' or in the dialogue 'Have you read Aristotle ? Yes, *he* is a great philosopher', the name 'Aristotle' in these sentences inherits its reference from past uses to which that use is

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<sup>1</sup> Devitt uses 'refer' in a generic way, for general terms as well as for singular terms. He uses 'designation' for singular reference. In this chapter I follow the standard usage rather than Devitt's own usage.

<sup>2</sup> 'Since the object of a descriptive thought is determined SATISFACTORIALLY, the fact that the thought is of that object does not require any connection between thought and object. However, the object of a *de re* thought is determined RELATIONALLY. For something to be the object of a *de re* thought, it must stand in a certain kind of relation to that very thought' (Bach 1987 : 12).

<sup>3</sup> Likewise, Taylor claims that proper names are *essentially* devices of coreference. Their role is to build, and exploit, 'chains of explicit coreference', participation in which guarantees the sharing of subject matter with other participants. 'What it is to intend to use an expression as a name', he says, 'is to use that expression with the intention of either launching or continuing a chain of explicit coreference' (Taylor 2003 : 10). When the same name is used twice, coreference is linguistically guaranteed : 'Tokens of the same name are guaranteed to corefer, if they refer at all' (Taylor 2003 : 14-15).

causally related (as per the Geach-Kripke-Donnellan picture).<sup>4</sup> So the causal relation between a name token and its reference involves (i) the quasi-anaphoric relation between the token and the other tokens in the communicative chain (or network)<sup>5</sup>, and (ii) the grounding relation between the chain and some external object. According to both Kripke and Devitt, some of the tokens in a chain bear the responsibility for grounding the entire chain.<sup>6</sup> (The tokens that don't bear any responsibility are parasitic on the others ; this explains how it is possible for an ignorant speaker to refer to Aristotle, even though he or she virtually knows nothing of him.)

For Kripke the token which initiates the chain at the so-called 'dubbing' stage bears the responsibility for grounding the chain it initiates. It is, as it were, the antecedent which fixes the reference for all subsequent uses of the name : they inherit the reference determined by the initial dubbing. The following schema summarizes the Kripke picture :

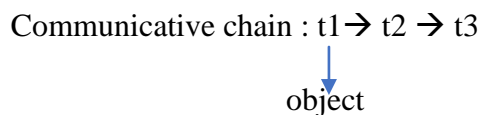


Figure 1 : the Kripke picture

Token t3 refers to object *o* in virtue of its anaphoric connections to other tokens (t1 and t2) to which it is causally related within a chain which itself bears (via t1) the grounding relation to *o*. The chain and all the tokens belonging to it, including t3, refer to the object the chain is grounded in (via the token t1 which bears the responsibility for grounding).

Devitt substantially modifies the Kripke picture by not restricting the responsibility for grounding to the initial step : the chain can be *multiply* grounded. Grounding involves associating a token of the name with 'a mental representation of [the] object brought about by an act of perception' (Devitt 1981a : 133), i.e. a 'demonstrative representation'. That occurs not only at the initial stage, when the name is introduced and the object dubbed, but also at later stages when the sort of perceptual contact with the object which characterizes the initial step recurs :

What is it (...) that grounds the name in a certain object? It is the causal-perceptual link between the first users of the name and the object named. What made it the case that this particular object got named in such a situation was its unique place in the causal nexus in the grounding situation.

It is important to note that this sort of situation will typically arise many times in the history of an object after it has been initially named: names are typically *multiply grounded* in their bearers. These other situations are ones where the name is used as a result of a direct perceptual confrontation with its bearer. (Devitt 2015 : 114)

In the following schema, illustrating Devitt's position, perceptual grounding occurs not only at the initial step, t1, but also later, at t3 :

<sup>4</sup> See Geach 1969, Kripke 1980, Donnellan 2012.

<sup>5</sup> 'Underlying a person's use of a name may be many designating-chains involving multiple reference-borrowings and, ultimately, multiple groundings in the object: there may be a *causal network* of designating-chains underlying her use' (Devitt 2015 : 117).

<sup>6</sup> 'Grounding' is Devitt's term, not Kripke's. Kripke speaks of reference-fixing. (By 'grounding', Devitt specifically means a causal-perceptual fixing of reference, while Kripke makes room for descriptive modes of reference-fixing.)

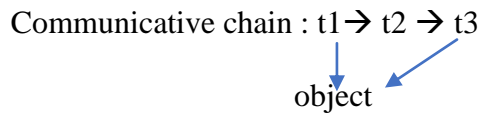


Figure 2 : the Devitt picture

In such cases, Devitt says, the chain's grounding in the object, initiated at  $t1$ , is *reinforced* at  $t3$ .

## 2. Reference change

Without multiple grounding, Devitt points out, one cannot account for reference change in so-called 'Madagascar' cases (Evans 1973). Devitt's theory of multiple grounding can thus be construed as a response to the challenge raised by Evans for Kripke's theory, even though the theory predates Evans's challenge.<sup>7</sup> That is how Devitt himself presents it :

Multiple grounding is very important : it enables a causal theory to explain reference *change* and various mistakes and misunderstandings. Causal theories of reference for names, or indeed for any terms, leave themselves open to easily produced counterexamples if they make the initial grounding at a naming ceremony (or equivalent) bear the entire burden of linking a network to an object. (Devitt 1981a : 57)

In the Kripke picture a name token inherits its reference from its ancestors, just as an anaphoric expression inherits its reference from its antecedent. In the Devitt picture, a name token does not merely inherit its reference from its ancestors ; it may contribute some grounding of its own (through the demonstrative representation it is associated with). As we have seen, each use of a name in the presence of its bearer reinforces the name's grounding in the object. Things can go wrong, however : instead of reinforcing the chain's grounding in the object, a later grounding event may damage it by unwittingly bringing a *second object* into the picture. In other words, there may be referential divergence between the earlier and the later groundings, as in figure 3 :

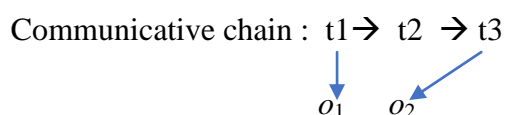


Figure 3 : Referential divergence

Instead of reinforcing the link to object  $o_1$ , the new grounding provided at  $t3$  anchors the chain to another object,  $o_2$ , and therefore weakens the link to  $o_1$  by providing an alternative referent for the chain. This *is* what accounts for the possibility of reference change.<sup>8</sup> What fixes the reference of a name, Devitt says, is the *pattern of groundings* which

<sup>7</sup> As Devitt points out (Devitt 2015 : 122, fn 29), his earliest discussions (1972, 1974) used the idea of multiple groundings to address the problem of confusion (see §3 below). He did not use it to address the problem of designation change until *Designation* (Devitt 1981a), after Evans had pressed the problem.

<sup>8</sup> As Alan Berger says (speaking of 'focusing' where Devitt talks of 'grounding'), 'A term can undergo an unintended reference change at a particular stage in its reference transmission

underlies it, and that pattern evolves as time passes (Devitt 2015 : 122). The link to object  $o_1$  may gradually weaken, and the link to object  $o_2$  gradually strengthen, until  $o_2$  wins and becomes the new referent for the name. That's arguably what happened in the 'Madagascar' case. 'Madagascar' was first the name of (a certain part of) Africa's mainland ; Marco Polo mistakenly took the term to be used (by the natives) to refer to the island off the coast. As more and more people followed Marco Polo's usage, the name changed its reference and now refers to the island.

On the Kripke picture the initial grounding fixes the reference for the chain, and every token in the chain inherits that reference. Referential divergence within a chain is impossible. The referential divergence introduced at  $t_3$  would have to be described as the launching of a new chain (a new name). Not so on the Devitt picture, where referential divergence is allowed and gradual change is possible.

### 3. Confusion

In cases of referential divergence such as that illustrated in Figure 3, the token that initiates the divergence ( $t_3$ ) is referentially anchored to two distinct objects,  $o_1$  and  $o_2$ . Via the anaphoric link to the other tokens in the chain, it is anchored to  $o_1$ , while it is anchored to  $o_2$  via the new demonstrative link it itself carries. Cases of multiple anchoring like this are cases of *confusion*. Confusion is a theoretically important phenomenon, the study of which Devitt has pioneered.

Devitt borrows Field's notion of *partial reference* to handle confusion cases :  $t_3$  partially refers to both  $o_1$  and  $o_2$ , but does not fully refer to any of them. Field proposes to dispense with the notion of full reference altogether, and to derive truth-conditions for utterances involving partially referring tokens by using supervaluation techniques (Field 1973). But, as Field acknowledges, we can also take the notion of partial reference as basic and define full reference in terms of it. The following definition suggests itself:

A token  $t$  fully refers to  $x$  just in case (i)  $t$  partially refers to  $x$ , and (ii) for every  $y$ , if  $t$  partially refers to  $y$ , then  $y = x$ .

Let us illustrate this with an example, due to Krista Lawlor (and discussed at length in Recanati 2016):

Wally says of Udo, 'He needs a haircut', and Zach, thinking to agree, but looking at another person, says, 'he sure does'. (Lawlor 2010 : 4)

The pronoun in Wally's mouth refers to Udo. Zach's pronoun is meant to be anaphoric on Wally's and to corefer with it, but at the same time it bears a demonstrative link to the person Zach is looking at, whom he wrongly takes to be the person Wally was referring to. Zach is confused : he is tracking two distinct objects at the same time (namely the person he sees and the person Wally initially referred to). The Field-Devitt notion of partial reference comes in handy here. Zach's pronoun partially refers to Udo (via the anaphoric link) and to the person Zach is looking at (via the demonstrative link) ; therefore it fails to fully refer. The pronoun only partially refers (to both Udo and the person Zach is looking at).

Can Zach's utterance be evaluated as true or false *simpliciter*? Because there is failure of (full) reference, it seems that we *cannot* straightforwardly evaluate Zach's statement as true

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only if at that stage the term's reference is transmitted by a *genuine focusing* on a new referent' (Berger 2002 : 18-19).

or false. Lack of determinate reference seems to go together with lack of determinate truth-value. According to Field's supervaluationist account, however, that is not necessarily the case : if *both* Udo and the person Zach is looking at need a haircut, then the utterance will come out as true *simpliciter*, in Field's framework. Be that as it may, if we suppose that Udo does not actually need a haircut, although the person Zach is looking at does, then the right thing to say is obvious: in this case at least, Zach's utterance is partially true and partially false, but it fails to be true or false *simpliciter*.

#### 4. Degrees of designation

Devitt proposes to go further and to 'refine the notions of partial designation and partial truth into notions of degrees of designation and degrees of truth' :

Instead of saying merely that '*a*' partially designates *b*, I say that it 'designates *b* to degree *n*', or that it '*n*-designates *b*'. (Devitt 1981a : 147)

The degree to which a token refers to an object depends upon 'the relative importance of groundings in that object in the causal explanation of the token' (Devitt 1981a : 148). When a token is anchored to distinct objects through two links, say an anaphoric and a demonstrative link as in this example, it will often be the case that one link, and the grounding it leads to, plays a more central role in the causal explanation of the token than the other ; this will be revealed in our judgments of truth or falsity. The graded notions of partial reference and partial truth which Devitt proposes can help us capture these fine-grained differences.

Note that the 'question under discussion' is likely to play a key role in determining which link matters more, when several causal links stand in conflict to each other. In the Lawlor example the anaphoric link matters more, arguably, because it is Wally's utterance which fixes the question under discussion. Owing to that factor, Zach will be understood as unwittingly saying something false *of Udo* (assuming Udo does not need a haircut), just as the speaker in Kaplan's famous example unwittingly says something false of Spiro Agnew.<sup>9</sup> (Some may be tempted to say that Zach only 'speaker-referred' to the man he was looking at, while the semantically referred to Udo through his anaphoric use of the pronoun. That position seems to me hard to justify. It seems more accurate to say that, while there was speaker's reference to both Udo and the demonstrated person, the question under discussion gives prevalence to the anaphoric link in evaluating the judgment for truth and falsity.)

I have just mentioned the speaker reference/semantic reference distinction. Kripke's famous 'raking the leaves' example provides another illustration of confusion and partial reference.

Two people see Smith in a distance and mistake him for Jones. They have a brief colloquy : 'What is Jones doing ?' 'Raking the leaves.' 'Jones', in the common language of both, is a name of Jones ; it *never* names Smith. Yet, in some sense, on this occasion, clearly both participants in the dialogue have referred to Smith. (Kripke

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<sup>9</sup> 'Suppose that without turning and looking I point to the place on my wall which has long been occupied by a picture of Rudolf Carnap and I say: [That] is a picture of one of the greatest philosophers of the twentieth century. But unbeknownst to me, someone has replaced my picture of Carnap with one of Spiro Agnew. (...) I have said of a picture of Spiro Agnew that it pictures one of the greatest philosophers of the twentieth century' (Kaplan 1978 : 239).

Kripke says that Jones is the semantic reference of the name 'Jones', while Smith is the speaker's reference. Devitt rightly points out that there is speaker reference to both Smith and Jones in this case : the speaker partially refers to Smith (via the demonstrative link) and partially refers to Jones (via the quasi-anaphoric link to the network of uses underlying the name 'Jones').

The speaker did not straightforwardly mean Smith, as Kripke claims, but neither did he straightforwardly mean Jones. (...) *The speaker is confusing two people.* As a result, we have no clear intuition that he meant one and not the other. (...) It may be objected that Kripke's intuitions about (2) ['Jones is raking the leaves'] are supported by the fact that the speaker would agree that he 'referred to' *that man* (pointing to Smith). But, of course, he would also agree that he 'referred to' Jones...

In virtue of what does a speaker mean Smith or Jones ? What would make either person 'the object of thought' ? I suggest an answers in terms of causal chains of a certain sort ; I call them 'd-chains', short for 'designative chains'.

Consider a *straightforward paradigmatic* use of 'Jones' in Jones's absence. We would say that the speaker 'meant', 'intended to refer to', etc., Jones. In virtue of what ? Underlying his use of the name is a causal network stretching back through other people's uses and ultimately 'grounded in' Jones in a face-to-face perceptual situation. This underlying network is made up of d-chains. The reason that Jones seems to have *something* to do with the speaker's meaning in uttering (2) is that a network of d-chains grounded in Jones underlies that utterance too. That is why he used the name 'Jones'. The reason that Smith also seems to have something to do with his meaning is that this situation is a perceptual one of just the sort to ground a network in Smith. D-chain networks are grounded in their objects not only at a baptism ; they are multiply grounded. Confusions like the present one lead to a network being grounded in more than one object. Because there are d-chains to both Jones and Smith, I would say that neither was the speaker's referent but each was his *partial* referent. (Devitt 1981b : 514-515)

Again, the question under discussion may play a role in determining the degree to which the token of 'Jones' partially refers to Jones and the degree to which it partially refers to Smith. Let's change Kripke's example a bit and suppose that the confusion originates with the second speaker. The first speaker says : 'I haven't seen Jones today. Do you know what he is doing ?' Then the other speaker responds, while pointing to Smith in a distance : 'He is raking the leaves'. The second speaker partially refers to Jones and partially to Smith, but the reference to Jones counts more since it addresses the question under discussion. As a result, the second speaker's utterance, 'He is raking the leaves', will presumably be evaluated as false (unless Jones happens to be raking the leaves somewhere at the same moment) to a greater extent than it will be evaluated as true.<sup>10</sup>

### 5. *Semantic coordination*

I have mentioned two types of case in which the reference of a singular term (token) depends,

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<sup>10</sup> Potential effects of the question under discussion on truth-value judgements in cases of presupposition failure have been discussed by Strawson and others. See von Fintel 2004 : 275ff and the references therein.

at least in part, upon the references of other tokens. First, there is the case of so-called ‘anaphoric chains’ (Chastain 1975), where one term (e.g. a pronoun) inherits its reference from an antecedent. Second, there is the case of proper names, which are ‘quasi-anaphoric’ in the sense that (as Devitt puts it) ‘reference borrowing is of the essence of their role’ (Devitt 1981a : 45). In both cases the anaphoric or quasi-anaphoric link forces coreference between the singular term (name or pronoun) and the singular terms it is linked to in the chain or network. Coreference, in these cases, is more or less mandatory. It is *de jure*, not *de facto*.

According to several authors, the notion of coreference *de jure* has wider application and is not restricted to anaphora and proper names. They point out that, in general, use of *the same word* by the interlocutors triggers a presupposition of coreference, just as use of the same proper name does. Thus Schroeter writes :

When you hear someone use the term ‘water’ in a normal English sentence, you naturally presume that the other person must be referring to the very same kind of stuff that you yourself pick out with that term (2012 : 178).

And Prosser :

Two individuals think of an object under the same mode of presentation just when their thoughts are epistemically related to one another in such a way that they can trade on identity of reference. *This occurs whenever there is a shared word the co-reference of whose tokens is taken for granted.* This includes, but is not limited to, cases in which one speaker defers to another. Modes of presentation can be shared by members of the same linguistic community who have never actually spoken to one another, provided they would recognise each other’s utterances as containing a shared word were they to speak. (Prosser forthcoming ; emphasis mine)

Fiengo and May hold that, in a syntactic sense, a pronoun and its antecedent count as the same expression, and this suggests equating the two phenomena : coreference *de jure* and recurrence of expression (Fiengo and May 1994, 1996). I do not think this is right, however, even if we buy Fiengo’s and May’s point about anaphora. I think coreference *de jure* is a matter of semantic coordination (Fine 2007), which is an even more general phenomenon than recurrence. Using the same expression again is a way of achieving semantic coordination, but there are other ways. The next example, involving turn-taking and ‘I’/‘you’ alternation, is a case of coordination without recurrence.

Imagine the following dialogue :

Lauben : ‘I have been wounded’

Leo Peter : ‘You have been wounded, really ?’

The coreferential indexicals used by Lauben in speaking about himself (‘I’) and by Leo Peter in speaking to Lauben (‘you’) are clearly distinct. They are not ‘the same expression’. Yet they are not merely, i.e. *de facto*, coreferential : their coreference is presupposed (Prosser forthcoming). Leo Peter takes it for granted that the person talking to him (and self-ascribing the property of having been wounded) is the person he is now addressing in his response. Lauben likewise takes it for granted that the person Leo Peter is addressing is himself. The presuppositional status of these ‘discourse-internal identities’ has been emphasized by Perry 1980 and Spencer 2006. Since Lauben and Leo Peter both unreflectively assume that Leo Peter’s use of ‘you’ corefers with Lauben’s use of ‘I’, they engage in what Prosser calls ‘transparent communication’, based on a *shared presupposition of coreference*. This is similar



to what happens in a case of anaphora or in a case of name sharing. All these cases display ‘coreference *de jure*’.

Within a framework such as Devitt’s, the Lauben case can be explained by saying that Lauben’s reference to himself figures prominently in the causal explanation of Leo Peter’s subsequent reference to Lauben by means of ‘you’. That is what accounts for the coordination of the two tokens. On this account Leo Peter’s use of ‘you’ is anchored to Lauben twice : it is anchored to Lauben via Lauben’s own use of ‘I’, which is grounded in Lauben and to which Peter’s ‘you’ is coordinated ; but it is also anchored to Lauben directly since Peter is talking to him in face to face conversation (and using ‘you’ as one normally does to refer to one’s interlocutor) : Peter’s use of ‘you’ is directly grounded in his perception of his interlocutor. This double anchoring of Peter’s use of ‘you’ in Lauben is very similar to the cases we discussed before ; and it is easy to check that it can give rise to confusions of the same type. Confusion will arise if things go wrong and the presupposition of coreference turns out to be false, i.e. if the person Leo Peter addresses when he says ‘You have been wounded, really ?’ turns out not to be the person who actually said ‘I have been wounded’.

Imagine that Leo Peter actually misheard Lauben’s utterance as coming from the mouth of Elwood Fritchley, and uttered ‘You have been wounded, really ?’ *in addressing Fritchley*. (To flesh out the example, imagine also that Lauben did not notice, and thought Leo Peter was addressing him.) In such a case of confusion, Peter’s use of ‘you’ fails to (fully) refer because it simultaneously tracks two distinct persons : the person who said ‘I have been wounded’ (Lauben) and the person Peter is addressing (Elwood Fritchley). It partially refers to both. That is similar to the case in which the the pronoun used by Wally and the pronoun used by Zach turn out to track distinct individuals despite the presupposition of coreference carried by the anaphoric link between them.

## 6. Coreference *de jure*

From an internal or phenomenological point of view, coreference *de jure* between two singular terms (tokens) t1 and t2 is characterized by ‘the subjective appearance of obvious, incontrovertible and epistemically basic sameness of subject matter’ (Schroeter 2012, §1) and, correlatively, by the subject’s disposition to ‘trade upon identity’ (Campbell 1987), i.e. to go through the following type of inference :

*Trading on identity (TI)*

t1 is F

t2 is G

Therefore, something is both F and G

It is easy to check that trading on identity is licensed when the same name occurs in both premisses, as in (1) below, or when the singular term in the second premiss is anaphoric on the singular term in the first premiss, as in (2).

(1) Cicero is F  
Cicero is G  
Therefore, someone is both F and G

(2) Cicero<sub>i</sub> is F  
he<sub>i</sub> is G  
Therefore, someone is both F and G

This is in contrast to cases in which an additional identity premiss is needed to reach the conclusion, as in (3).

- (3) Cicero is F  
Tully is G  
Cicero = Tully  
Therefore, someone is both F and G

Coreference *de jure* also has a truth-conditional aspect, which justifies its name. It is generally characterized as follows : two tokens t1 and t2 that are coreferential *de jure* are *bound to corefer if they refer at all*. In a case of anaphora, for example, there are two options : It may be that the ‘antecedent’ fails to refer, in which case the other term will fail to refer too ; but if the antecedent refers, then the other term will refer to the same thing. Likewise for two tokens of the same proper name (belonging to the same network) : the name may be empty, but if it isn’t, the two tokens are bound to corefer. We can generalize this by saying that in any instance of coreference *de jure* between two singular terms, if either of the term refers, then the two terms corefer.

The problem with that characterization is that it is refuted by the cases of confusion we have discussed. In these examples of confusion one term (fully) refers, while the other one fails to (fully) refer. In Lawlor’s example, Wally (fully) refers to Udo when he says ‘he needs a haircut’. The confusion is entirely on Zach’s side. Zach is confused and partly refers to two distinct persons ; therefore he fails to (fully) refer to anyone when he says ‘he sure does’. This shows that the proper characterization of coreference *de jure* can’t be that t1 and t2 are bound to corefer if either refers. In this example t1 does (fully) refer, but t2 doesn’t.

In Recanati 2016 I proposed a weaker characterization: in cases of coreference *de jure*, t1 and t2 are bound to corefer if they *both* refer. In all of the counterexamples to the stronger characterization, t2 fails to (fully) refer ; in such cases the weaker characterization is trivially satisfied since the antecedent of the conditional is false (it is not the case that both t1 and t2 refer).

In Devitt’s framework we can talk of partial and full coreference. Two terms fully corefer just in case they fully refer to the same thing. Two terms partially corefer just in case they partially refer to the same thing. In the examples of confusion we have discussed, t2 fails to (fully) refer, while t1 (fully) refers, so t1 and t2 do not fully corefer. Still, t1 and t2 partially corefer. For example, both Wally and Zach partially refer to Udo ; and Lauben and Leo Peter (in the ‘Fritchley’ variant) both partially refer to Lauben.<sup>11</sup> In Devitt’s framework, therefore, we can characterize the truth-conditional aspect of coreference *de jure* in a way that minimally departs from the standard characterization : two terms t1 and t2 that are coreferential *de jure* are *bound to partially corefer if they partially refer at all*.

## 7. Mental files

A mental file is a mental representation which, in the normal course of events, is causally related to what it is about via ‘acquaintance relations’ or, better, ‘epistemically rewarding relations’ (ER relations) : relations which make it possible for the subject to gain information from the object. The relation to an object one currently perceives is a paradigmatic ER relation, but more indirect relations established through testimony and communicative chains

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<sup>11</sup> Admittedly, only Wally and Lauben achieve full reference. Zach and Leo Peter (in the ‘Fritchley’ variant) only partially refer, and this is what prevents full coreference from obtaining between Zach and Wally and between Lauben and Peter.

also count. The role of a mental file is to store the information one gains in virtue of standing in the relevant ER relation to the object (Recanati 2012, 2016).

Files are typed by the type of ER relation they exploit. So we distinguish demonstrative files (the sort of file which, according to Devitt, ultimately grounds a d-chain) from memory files, recognition files etc. Certain files are based on several ER relations (or a composite ER relation) and are governed by the presupposition that these relations converge on the same object. There are also encyclopedia entries, which are opportunistic and exploit any ER relation available without imposing any such relation in particular. Perry calls them ‘detached files’ – they are the sort of file one normally associates with a proper name.

The file story is fully compatible with Devitt’s framework, since Devitt himself appeals to mental representations as a key component of the d-chains which mediate between the object referred to and the linguistic token.<sup>12</sup> On the mental file story, reference (by a linguistic expression) is always mediated by a mental file associated with the expression token by the language user. It is mental files which ultimately refer, and they refer in virtue of the ER relations they are based on. Files can be multiply anchored if they are based on several ER relations of which it is presupposed that they converge on the same object. All the cases of confusion I have described are cases in which such a presupposition is in place and turns out to be false.

I felt the need to introduce the notion of a mental file in order to make progress in characterizing the role of proper names understood as ‘devices of coreference’ (Taylor 2003). We can assume that each individual user associates a given proper name with a mental file of his own about the reference of the name. When a name is used purely deferentially (as when one picks up a name overheard in a conversation), the individual mental file the language user associates with the name is a *deferential file* : a file based on a specific ER relation, that of being party to a proper name using practice (Recanati 1997, 2000, 2001). Being party to a proper name using practice (through acquiring the name from someone else) is an epistemically rewarding relation : one is in a position to gain information about the referent of the name through testimony (by attending to the name when it is used, or by using it oneself to elicit information from others). Let us call that ER relation, made available by the mere sharing of words, the ‘deferential relation’. The deferential relation ‘broaden[s] the horizons of thought’, as Kaplan puts it (Kaplan 1989 : 603). It makes it possible to think and talk about objects and properties one is not acquainted with :

My dog, being color-blind, cannot entertain the thought that I am wearing a red shirt.  
But my color-blind colleague can entertain even the thought that *Aristotle* wore a red

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<sup>12</sup> ‘Fully compatible’ may be a little too strong, in view of the following difference between Devitt’s framework and the mental file framework. ER relations per se are not, or not necessarily, causal relations ; but they make information flow possible, and information flow is a matter of causal relations between the object thought about and the thinking subject. In the normal course of events, ER relations and the causal relations of information flow go hand in hand, and relate the subject to the same object. Things can go wrong, however, and in that case what determines the reference is the ER relation, not the causal relation. (The examples I have in mind are *cross-wiring cases*, where the subject gains proprioceptive information concerning someone else’s body, or introspective information concerning someone else’s mind, and thinks of himself through a self-file based on the ER relation of identity.) For Devitt, however, what fixes reference has got to be the causal relation. How important that difference is, I don’t know ; in any case it can be ignored for the purposes of this chapter.

shirt. (Kaplan 1989 : 604)

However, a deferential file, based on the deferential relation (and no other ER relation), is only a *stage* in the development of a full-fledged encyclopedia entry based on as many ER relations as happen to be available in context. It is that sort of file that is normally associated with a proper name.

On this picture, corresponding to the network of uses of a proper name, there is what Perry calls an ‘intersubjective file network’ (Perry 2012 : 200-204), constituted by the files associated with the name by the users in the network. Kamp calls it an ‘intersubjective causal network of entity representations’ (Kamp 2015 : 309).<sup>13</sup> The Devitt-Taylor view that proper names are *essentially* devices of coreference can now be cashed out as follows : The role of proper names is precisely to coordinate the mental files of all of those who are involved in the name-using practice.

### 8. *Coordination via proper names*

Through a proper name, the linguistic community arguably *interconnects* the individual files in the minds of name users, thus making information transfer between the files possible through testimony and chains of communication using the name. Kamp speaks of ‘the causal coordination of labelled entity representations that are privy to the members of the community’ (Kamp 2015 : 298). The files thus interconnected can be viewed as a global, *distributed file* in which the community pools information about the referent.

The pooling idea should be understood in the light of Putnam’s ‘division of linguistic labor’ (Putnam 1975 : 227-29). The reference of a name is *fixed at the community level* : it is the reference of the distributed file. The distributed file itself shouldn’t be seen as the static juxtaposition of individual mental files, but as a *public file* managed by the community as a whole. The community filters out information tentatively contributed to the distributed file by screening testimony and correcting tentative individual contributions when they do not fit.<sup>14</sup> In this way the community pools information from the interconnected individual files so as to build a coherent body of information about the reference of the distributed file.

What fixes the reference of the distributed file is what Devitt calls the process of grounding. Grounding always proceeds through individual mental files in the minds of the language users. Each user is responsible for grounding, via his/her file based on various ER relations, the distributed file of the community. The reference of the distributed file is a function of the references of all the (non-parasitic) individual mental files associated with the name by its users, and more precisely of all the partial references determined by the ER relations on which individual files are based. Mental files refer through ER relations, and by their reference contribute to determining the reference of the distributed file to which they belong. So distributed files are multiply grounded.

From what I have said, it follows that the individual files and the distributed file are referentially interdependent (in a non-circular manner). The reference of the individual encyclopedia entry associated with a proper name in the user’s mind depends, *inter alia*, upon the deferential relation which partially anchors it to the reference of the distributed file. If the individual file is based *only* on that deferential relation (as in the case of deferential files), it

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<sup>13</sup> Perry 2012 emphasizes the relation of ‘coco-reference’ (his name for coreference *de jure*) which ties together the files in the network.

<sup>14</sup> For example, if I tell you that Napoleon died a few years ago, you will act as a gate-keeper and do your best to prevent that piece of alleged testimony from entering the public file associated with the name ‘Napoleon’.

does not contribute to grounding but inherits the reference of the distributed file, thereby making it possible for a language user with no knowledge of an object to refer to it both in speech and thought. Such a parasitic use takes advantage of the fact that the reference of a name is fixed by the distributed file. In the other direction, however, the reference of the distributed file itself depends on the references of the individual files in the network (unless they are purely deferential files).

The reference of the individual file and that of the distributed file are interdependent, but they can diverge.<sup>15</sup> The reference of the distributed file and that of the individual file diverge in all cases in which (i) the deferential ER relation which contributes to determining the reference of the individual file and makes it dependent upon the reference of the distributed file counts as less important in context than some more direct, e.g. perceptual, relation to the reference, and (ii) the more direct relation targets an object which turns out to be distinct from the reference of the distributed file. This situation is illustrated by Kripke's 'raking the leaves' example : the 'semantic reference' of the name 'Jones' is the reference of the distributed file, while the 'speaker's reference' is the reference of the individual files in the mind of the language users. In Kripke's example, as we have seen, the individual files in the mind of the language users are confused files partly referring to Smith and partly to Jones (Devitt 2015 : 118-21). But the distributed file unambiguously refers to Jones. The particular mistake made by these particular users hardly affects the reference of the distributed file.

## 9. Conclusion

Devitt's theory of multiple grounding is important because of the light it sheds on phenomena like reference change and confusion, and on the metasemantics of coordination. The notion of partial reference Devitt borrows from Field's work on referential indeterminacy is particularly promising. All of these ideas can easily be accommodated within the mental file framework, which is, by and large, compatible with Devitt's causal account of reference.<sup>16</sup> In that framework, the role of proper names is to coordinate the mental files of all of those who are involved in the name-using practice.

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<sup>15</sup> When there is referential divergence between the distributed file and the individual file associated with the name by a particular user of the name, the use of the name is deemed *incorrect* by the community (as part of its corrective policy with respect to distributed files). In Kripke's example, the use of the name 'Jones' will be judged incorrect by any member of the community apprised of the fact that the man raking the leaves is *not* Jones. The two users themselves, when apprised of the facts, will recognize that their use is incorrect.

<sup>16</sup> Devitt himself toyed with the mental file idea in 'Against Direct Reference' (Devitt 1989), and again in *Coming to our Senses* (Devitt 1996).

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