Coming to Language: Wittgenstein's Social 'Theory' of Language Acquisition

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> If we want to understand human communication, … we cannot begin with language. (Michael Tomasello 2008, 59)

It is extraordinary how a philosopher who was allegedly averse to theorizing made such an impact on theorists of all disciplines, and indeed was the often-acknowledged inspiration of new and ground-breaking theories. Recently, when I investigated Wittgenstein's views on memory, I was astonished to find how deeply even a superficial knowledge of those views had impacted neuropsychological research on the subject (Moyal-Sharrock 2009). And as I embark on an exploration of his view of language acquisition, I find the field – or at least the progressive side of the field – more than superficially cognizant of at least the *Philosophical Investigations*, and carving with it its new, fertile, furrows.

A little aside to explain the subtitle of my paper: 'Wittgenstein's "Theory" of Language Acquisition'. I don't share the radical Therapeutic reading of Wittgenstein's philosophy, which takes Wittgenstein as not attempting to do anything constructive in philosophy, but interested only in keeping us from succumbing to misleading philosophical pictures. I am what might be called 'right of centre' in my reading of Wittgenstein, and am not averse to saying that his insights on language acquisition, as on many other things, amount to a theory, inasmuch as a theory can be a suggested rearrangement – in the best of cases: a more *perspicuous* presentation – of what is 'always before our eyes' (PI 122, 415). The inverted commas around 'theory' are there merely to acknowledge the fact that Wittgenstein might not have liked to call it that.

1. The critique of Referentialism

One of the important things Wittgenstein said about language is that it has its root in gesture – or, as he also put it, in 'action' ('the deed'), and more precisely: 'reaction' or 'instinct'. No Chomsky here:

> What we call meaning must be connected with the primitive language of gestures (pointing-language). (BT 24)

This prompted Michael Tomasello to realize that – contrary to current primatologist dogma – apes' *gestures*, not their vocalizations, are the precursors of human language (2008, 53-5).

As Wittgenstein says, repeatedly and variously: our language-games are grounded in instinct or primitive reactions: our shared primitive behaviour. By this, he means things like spontaneous gestures – which, through training, get replaced by words. This, which John Canfield calls Wittgenstein's 'primitivism' (1997, 258), contrasts with the unabashed *intellectualism* or *mentalism* of views like Chomsky's and Fodor's, according to which at the basis of language is a perfect linguistic structure or even a 'language of thought' ('Mentalese') located in the brain. On this view, our words are, as it were, informed by the mind; they get their meaning from what must be an inner full-blown 'referential' language. Language acquisition is primarily a problem of figuring out which mental concept a word maps on to or hooks on to.

Chomsky's and Fodor's perpetually-refurbished theories notwithstanding, progress away from Referentialism has been made. Derek Montgomery, in his excellent 'Mental Verbs and Semantic Development', shows how, drawing on Wittgenstein's private language argument, contemporary theories have been emphasizing semantic development as a process of learning how, when, and for what purpose words are used. He calls this 'the contextual view' (2002, 368), which he summarizes as follows:

> ... the semantic development of mental verbs is better characterized as a process of learning how to use a word rather than a process of learning to label a referent. Meaning is not defined 'in-the-head' of the word learner, but is embedded in the social practices responsible for framing the purpose a word serves and for guiding the proper ways to use it within relevant discourse contexts. (2002, 376)

Nor can an act of ostension give meaning to an object or a sign, or produce criteria for the latter's further use. As Jerome Bruner writes:

> There is a *long road* between following another's gaze out to an object and being able to comprehend a referring expression like 'the cream cheese on the top shelf of the fridge'. (1983, 123; my emphasis)

It is in social practices, not in the mind, that we shall find this long road to understanding, for it is in social practices that the meaning of words and the standards for their use are established. Meaning, as Wittgenstein says, is 'in use' – out there – not in the head, not in some mental repository.

2. The 'long road' to understanding

2.1 The Primitivity of Action: the deed, not the word

In the *Blue Book*, Wittgenstein writes that '[t]he study of language games is the study of primitive forms of language or languages' (BLB 17). What are those primitive forms of language? They are not words or symbols, but 'reactions':

> The origin and the primitive form of the language game is a reaction; only from this can more complicated forms develop.
> Language – I want to say – is a refinement. "In the beginning was the deed." (CE 395; CV p. 31)

> The basic form of the game must be one in which we act. (CE 397)

> The essence of the language game is a practical method (a way of acting) – not speculation, not chatter. (CE 399)

Language, then, is a refinement; it emerges from the *development* of some of our natural reactions. Not just *any* natural reaction – not singular or idiosyncratic ones, like tics – but our *shared* natural reactions. Wittgenstein suggests just this when he writes: 'it is characteristic of our language that the foundation on which it grows consists in *steady ways of living, regular ways of acting*' (CE 397; my emphasis). The kind of reaction from which language can develop must be the *shared* or instinctive behaviour of mankind; reactions such as: crying when hurting or sad; smiling when glad; jumping when startled; gasping or screaming when afraid; but also reacting to someone's suffering. Indeed:

> In its most primitive form [the language-game] is a reaction to somebody's cries and gestures, a reaction of sympathy or something of the sort. (CE 414)

These instinctive common reactions or action patterns are the *prototypes* of our concepts[1], including those of belief and doubt:

> Being sure that someone is in pain, doubting whether he is, and so on, are so many natural, instinctive kinds of behaviour towards other human beings, and our language is merely an auxiliary to, and further extension of, this relation. Our language-game is an extension of primitive behaviour. (For our *language-game* is behaviour.) (Instinct). (Z 545; cf. also RPP I, 151)

And so, the basis for the development of language is constituted by a number of distinct primitive, instinctive, behavioural patterns that John Canfield calls 'proto-language games' (1996, 128). Without these behavioural patterns, there would be no language. This is the case phylogenetically as well as ontogenetically; for these biological given configurations of behaviour – such as: '[t]he natural, untutored behaviour of one pre-linguistic hominid helping another it sees is hurt' – are part of the species' inheritance' (*ibid.*). So that, for Wittgenstein, too, ontogeny recapitulates phylogeny.

2.2 Training

In the *Investigations*, Wittgenstein writes that the primitive forms of language are those used by the child when it is learning to talk (PI 5) and that, here, 'the teaching of language is not explanation, but training' (PI 5). Why? For an obvious reason: inasmuch as here – that is, in initiate learning, or the learning of a first language – the initiate has only reactions and no words at its disposal, the learning of a native language will *have* to do with action or behaviour; words can only play a secondary (background music) role. This is why, at the very beginning – where the teacher has only the infant's instinct to work with – the teaching of language can only be a training, not an explaining. Language cannot take its grounding in thought or reflection:

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[1] 'What, however, is the word "primitive" meant to say here? Presumably, that the mode of behaviour is *pre-linguistic*: that a language-game is based *on it*: that it is the prototype of a mode of thought and not the result of thought.' (RPP I, 916; Z 541).

> I really want to say that scruples in thinking begin with (have their roots in) instinct**.** Or again: a language-game does not have its origin in reflection[2]. Reflection is part of a language-game. (Z 391)

> I want to regard man here as an animal; as a primitive being to which one grants instinct but not ratiocination. As a creature in a primitive state. … Language did not emerge from some kind of ratiocination. (OC 475)

Because it has reactions and no words, the preverbal child is much like an animal; and so the kind of training it will have to undergo resembles that effected on animals – it resembles *taming* (*Abrichten*, PI 5):

> I am using the word 'trained' in a way strictly analogous to that in which we talk of an animal being trained to do certain things. It is done by means of example, reward, punishment, and suchlike. (BB 77)

Language, then, is an extension of our patterned non-linguistic behaviour through training. 'But how is the connexion between the name and the thing set up?' asks Wittgenstein in the *Investigations*; and he replies:

> This question is the same as: how does a human being learn the meaning of the names of sensations? – of the word 'pain' for example. Here is one possibility: words are connected with the primitive, the natural, expressions of the sensation and used in their place. A child has hurt himself and he cries; and then adults talk to him and teach him exclamations and, later, sentences. They teach the child new pain-behaviour. (PI 244)

So the *connection* between the name and the thing is not made by an act of ostension, not by merely hooking gestures on to their public referents, but by processes of drill or habituation that are similar to stimulus-response conditioning, but that must be supplemented by training *into the practice* in which those words are used[3].

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[2] I have modified the translation of 'Überlegung' here as 'reflection', preferring it to the more opaque 'consideration'.

[3] Cf. Medina 2002, 173. As Montgomery observes, if the carer repeatedly uses the verb 'want' while interpreting the infant's behaviour in certain contexts, it is 'reasonable to suspect that when the verb emerges in the child's lexicon it will be in familiar contexts such as [those] where the child has repeatedly heard it being used. The meaning of the term, like the meaning of the prelinguistic gesturing, is bound up in the role it plays within such contexts' (2002, 372).

What the child is taught in learning to replace his primitive reactions with words, is 'new ... behaviour' (PI 244). Natural reactions are replaced by *modified* action patterns: 'a stylized overlay upon the prior naturally existing interaction pattern' (Canfield 1997, 261). So, for instance, the child learns to replace his initial crying for food with intentional *gesturing* for food, and eventually with more sophisticated – i.e. linguistic – requests. The word replaces the gesture and takes over its function. It isn't that the word is now hooked or mapped on to the behaviour, but that it *replaces* it:

> "So you are saying that the word 'pain' really means crying?" – On the contrary: the verbal expression [*Ausdruck*] of pain replaces crying and does not describe it[4]. (PI 244)

On what Montgomery calls the 'contextualist view' of semantic development, this *substitutive* function of the word – its doing the same job as the gesture – is due to the continuity that exists between the *communicative goals* children have pre-linguistically and the goals they have when using words (2002, 370). But we must be wary here of Montgomery's over-intellectualization of the primitive gesture that will extend into language; there can hardly be a communicative *goal* at the initial stage. Indeed, Wittgenstein speaks of a 'reaction' at the basis of the language-game (CV 31; CE 395); this implies spontaneity, not purpose or goal-directedness. The infant's primitive crying is not goal-directed, but instinctively *expressive*; of course the infant will soon learn to 'direct' or stage its crying to serve a purpose, but that is a *refinement* of the primitive gesture. So that, contra Montgomery (2002, 370), at the root of language is not prelinguistic *social-communicative* behaviour, but prelinguistic behaviour *tout court*.

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[4] 'Primitive pain-behaviour is a sensation-behaviour; it gets replaced by a linguistic expression' (RPP I, 313). When Wittgenstein says that what the child learns when he learns to replace the sensation-behavior by a linguistic expression is 'new behaviour', he is not only suggesting that language is also behavior (using language is primitive behavior), but means to emphasize that in picking up the linguistic expression, the child is not *describing* with it, but reacting with it. This will remain the case in some adult reactions: 'The words "I am happy" are a bit of the behaviour of joy.' (RPP I, 450); 'For think of the sensations produced by physically shuddering: the words "it makes me shiver" are themselves such a shuddering reaction; and if I hear and feel them as I utter them, this belongs among the rest of those sensations.' (PI p. 174)

The primitive gesture is only expressive, not expressly communicative or social; it will gradually become a tool for intentional communication, and it will also be replaced with language. This is not to say that we lose all gestures to language; gestures remain, but they are no longer our *only* mode of expression. And the uses of *gestures* become as various as the uses of *language* – in the main, those delineated by Karl Buehler (1934): *descriptive*, *expressive* and *directive* (steering/signalling).

Ostensive *teaching*, as opposed to mere ostensive *definition*, involves behavioural conditioning: the child is taught, through repetition and exercises, to utter certain words in certain contexts or situations. These drills are used to tap and channel the child's natural reactions. What we witness in these initial stages is not yet language, but 'processes resembling language' (PI 7); for a language is not the mere repetition of certain sounds in certain contexts and after certain prompts. Wittgenstein is not a behaviourist. Drill is not enough: a normative *attitude* towards utterances, towards how things are to be done, must be inculcated in the child, so that it can learn to regulate itself[5]. It is thanks to her acquiring this normative attitude that the child is eventually able to go on, on her own; to proceed *from other-regulation to self-regulation* (Medina, 2002, 165). And acquiring a normative attitude demands nothing less than being enculturated. Successful enculturation means the child can then judge for herself that in a particular instance a word or phrase makes sense, not by comparing it to a benchmark, context-free, use but on the basis of her experience of multiple language-games in which the word or phrase is used.

So that, *contra* Chomsky, the learning of a first language is *essentially* social; it requires that a member of the child's linguistic community mould its primitive reactions and proto-language games into language-games; bringing the child, through a process of enculturation, to assimilate, conform to and apply the standards of correctness of its linguistic community. Lest this *normalisation* of the child be deemed un-Wittgensteinian, I should add that Wittgenstein refers to, and quite often, to a *normal way* of doing things and of using words. In the *Lectures on Philosophical Psy-*

[5] 'Our children are not only given practice in calculation but are also trained to adopt a particular attitude towards a mistake in calculating [variant: '... towards a departure from the norm']' (RFM VII 61, p. 425).

chology, for instance: 'having been taught, the child must use the word in a normal way' (LPP 37). More on this later.

Acquiring language is like learning to walk: the child is stepped into language by an initiator and, after much hesitation and repeated faltering, with time, multifarious practice and repeated exposure, it disengages itself from its teacher's hold and is able, as it were, to run with the language.

3. The two problems of language acquisition: learning and productivity

The two main problems of native language acquisition, as I have found them in the literature, are: 1) the problem of learning what is being taught; and 2) the problem of productivity of novel sentences. Fodor's and Chomsky's solution to both these problems is to posit an innate mental linguistic structure or universal grammar that enables learning and productivity. I briefly summarize their approach to these problems and then show that the Wittgensteinian solution also appeals to a grammar – but of a different kind.

3.1 The Problem of Learning

The problem of learning is summarized in one of Fodor's hallmark claims: 'one cannot learn a language unless one has a language' (1975, 64). How can a child understand the words or sentences we are trying to teach it, if it has never come across words or sentences before? On Chomsky's view, the child could not make sense of the language it is being taught if it did not have an innate language acquisition device (LAD) with which to recognize, interpret and analyze that language. Chomsky describes language acquisition as the gradual experience-triggered disclosure of innate grammar. Chomsky's *innate* or *internal* universal grammar is made up of innate principles that are common to all *external* or natural languages (such as English, Greek, Hebrew etc.). It is from this full-blown innate grammar that the child is able to abstract or infer the structure or rules of its native language from its limited and faulty manifestations. An immediate objection is that this may at best offer an explanation of how the child comes to learn what the correct *structure* (or syntax) of its native regional language is, but what about meaning? The difficulty was well illustrated by Searle's

Chinese Room Argument, according to which competence with syntax does not imply understanding. In an effort to import meaning into his deficient scenario, Chomsky appeals to 'deep structures'. But let us move on to Fodor.

Taking Chomsky's lead, Jerry Fodor claims that language acquisition requires that we already possess a 'language of thought' (LOT) – that is, an inner language that contains all the concepts or representations of anything we can ever learn (including language), think or express. It is by successfully matching words it encounters in experience with words (or *physical meanings)* in the language of thought that the child comes to acquire language. The LOT, that is, provides meaning itself. Indeed, as Fodor stated in a recent talk at the University of London: 'concept-learning is … an oxymoron'; 'All our concepts are innate' (15 May 2009). This of course implies that all homo sapiens are born with the basic concepts, say, of nuclear science; and the idea of inner interpretation and matching calls for the services of a homunculus.

However, my aim here is not to examine the plausibility attached to the idea of inner, innate concepts that echo the Platonist view that we can never really learn anything new since experience only draws out what is innately in the mind. My aim here is rather to address the problems which Fodor and Chomsky think solvable only by postulating an innate universal grammar or language of thought. I'll just briefly summarize the second problem before going on to the Wittgensteinian solution.

3.2 The Problem of Productivity

The problem of productivity, or creativity, is how to account for our capacity to produce and understand a potentially infinite number of novel and correct sentences. Here, the *poverty of stimulus* argument strikes at social theories of language acquisition by claiming that the utterances encountered by the child in experience being faulty and limited, it is impossible that she should learn the language by generalizing from this inadequate experience. Moreover, the syntax of any language is so abstruse that no child could learn it unless she already had the form of the grammar hardwired into her brain. Because experience cannot account for our ability to understand and produce novel correct sentences, we are forced to suppose the existence of a universal grammar which must be both endowed with recur-

sive rules so as to enable productivity or creativity, and *innate* for we could never acquire it from our limited exposure to imperfect language use. Note that this inner grammar is not only productive, but also *restrictive*; it suppresses overly idiosyncratic or deviant uses of language.

4. Wittgenstein's Social Conception of Language Acquisition: grammar, yes, but not innate

From Wittgenstein's social view of language acquisition, the problem of learning is readily deproblematized: the child need not already *have* a language in order to learn a language; what it needs is to be in a situation in which *there is already* language (but it isn't yet the child's); and to *have* human instincts and reactions, as well as a carer who can train it into developing those instinctive reactions into words. So we might substitute Fodor's 'one cannot learn a language unless one has a language' with 'one cannot learn a language unless there is already a language there'. And in the case of the first human language, there was no *learning* a language but an *evolving* into language from shared natural reactions.

Fodor's claim that the initiate must already have a language if she is to understand what she is being taught would be right if what the teacher were attempting to pass on, *from the get-go*, were the whole language, and/or if she were teaching it solely through words or sentences. But if – as is the case – what the teacher is attempting to transmit is not a whole language from the get-go, but the bare rudiments of one; and if her teaching it consists not only in the use of words but in contextualized actions, gestures, facial expressions, tones, etc.; and if the child's understanding is not achieved in an instant or a flash, but requires multifarious repetition in multifarious contexts, why would a language of thought or built-in mental grammar be required at all to start with? As to the grammar necessary for language acquisition, it does *not* need to be already in place *in the initiate*; it simply needs to be in place in her environment. The initiate does not need to have prior knowledge of the type she is learning – i.e. of language – she need only be properly equipped to learn it – and by that, is meant: she must be a biologically and socially adept human being living in a human world. On a Wittgensteinian conception, the necessary conditions for initiate language acquisition include the following:

a) that a fully-fledged language be there and that it be used by the carer in training the child;

b) that the child have *natural reactions that it shares with the rest of humanity* including, as we have seen, shared instinctive behaviour (e.g. crying when hurting or sad; jumping when startled), but also shared instinctive responses (e.g. to pain, to pointing) and shared basic discriminations (e.g. of taste, colours, shapes). Indeed, our acquiring concepts, such as pain, requires that we have appropriate (i.e. normal) human reactions:

> If a child looked radiant when it was hurt, and shrieked for no apparent reason, one couldn't teach him to use the word 'pain'. Even if we taught him to use it instead of shrieking it would still not have the consequences like taking him to the doctor; it would be a new use. One couldn't teach him our use of psychological words. (LPP 37)
>
> The frame of reference to which we fasten these words is ordinary human behaviour. The further away a human being is from this the less we could know how to teach him. (LPP 159)

And for concept acquisition to even get off the ground, the initiate must be susceptible to training; must react to such things as pointing and encouragement appropriately:

> … acts [of encouragement] will only be possible if the pupil responds, and responds in a particular way. Imagine the gestures, sounds, etc., of encouragement you use when you teach a dog to retrieve. Imagine on the other hand, that you tried to teach a cat to retrieve. As the cat will not respond to your encouragement, most of the acts of encouragement which you performed when you trained the dog are here out of the question. (BB 89-90)

c) a *fundamental trust* on the part of the initiate is also required for language acquisition; her *blind* acceptance of the authority of the teacher or of the rule (PI 219). In *On Certainty*, Wittgenstein insists on the blind trust that must lie at the bottom of the learning process if that process is to go on at all:

> The child learns by believing the adult. Doubt *comes* after belief. (OC 160)
>
> For how can a child immediately doubt what it is taught? That could mean only that he was incapable of learning certain language games. (OC 283)

> A child learns there are reliable and unreliable informants much later than it learns facts which are told it. (OC 143)

This is not to say that children will not often inquire about what they are taught, but that children do not normally question the teacher's authority or the basic rules or facts that they are taught (e.g. the multiplication tables, the letters of the alphabet; that Napoleon existed; that Paris is the capital of France; what some words mean). Alexander Bain speaks of 'the natural or primitive credulity of the mind' (1868, 377):

> We are all faith at the outset; we become sceptics by experience, that is, by encountering checks and exceptions. We begin with unbounded credulity. (1868, 382)

And of course, this is helped by the fact that we are first taught the use of a word in its most obvious or unambiguous context:

> The way in which we learn to use the word [pain], and therefore the way in which it is used, is … complicated, difficult to describe. For instance it is first taught under certain circumstances where there is no doubt, i.e. where there is no question of doubt. (LW II 30)

Indeed, in the *Blue Book*, we are reminded that language, in its simplest forms, stems from 'activities, reactions, which are clear-cut and transparent' (BB, 17).

d) and finally, an important condition for language acquisition would go under the broad heading of *training,* and include drill, repeated exposure as well as a competent trainer – that is, a reasonably adept user of the language, endowed with enough pedagogic ability to mould or shape the child's responses to the training so that they end up in harmony with the norm. It may be objected that training is not necessary for language acquisition and that *exposure* to a language may be sufficient. I, for one, share Philippe Narboux' view that training is a necessary though insufficient condition for the learning of a *native* language whereas *second-language* acquisition doesn't require it, and can rely on nothing other than ostensive definition, because it relies on previous training (2004, 136).

On Wittgenstein's view, then, the framework that must be in place for language acquisition is not homogeneous, but heterogeneous. And *pace*

Chomsky and Fodor, the human brain – though biochemically necessary to language acquisition – is not the repository of language. Meanings are established outside the individual mind, and so their acquisition *requires* socio-linguistic interaction. The grammatical rules that establish criteria for the proper uses of words are not internally or privately applied principles; they are norms or conventions (PG 138) applied and regulated by a linguistic community, and transmissible only through enculturation. This makes language acquisition internally related to learning, exposure and initiation into normative practices.

5. Wittgensteinian 'grammar', not in the head

As Christina Erneling writes: 'Communicating requires something beyond the speaker's subjective, private mental state; it requires an objective and intersubjective framework, which the speakers share' (1993, 26). Wittgenstein never denied that an objective and intersubjective framework is needed for a language to be possible. And he certainly never denied that language or communicating depends on *grammar* – keeping in mind Wittgenstein's somewhat idiosyncratic use of 'grammar' as the network of conventional rules that describe what it makes or does not make sense to say in a particular language. Wittgenstein never stopped reflecting on the nature and extension of grammar. Indeed, it may well be argued – and I have – that the continuing thread in Wittgenstein's philosophy is his attempt to elucidate grammar and extricate it from its too-often misleading resemblance to ordinary language.

The Wittgensteinian solution to the two problems of language acquisition is not as foreign to Fodor and Chomsky's as may be supposed, for Wittgenstein, too, posits the existence of a universal grammar. But Wittgenstein's grammar has nothing of the mental about it: it is neither innate nor inner; it is, like language, rooted in our primitive reactions, and transmitted socio-culturally – both explicitly, through heuristic means, and implicitly, through exposure to, and practice of, the language.

Our grammar, Wittgenstein likes to say, is 'autonomous' (PG 63); by this, he does not mean that it has no link with reality, but that it is not, as he writes: '*answerable* to any reality' or '*accountable to* any reality' (BT 184, PG 184). What he means is that grammatical rules are not *ration-*

ally justified by reference to anything empirical. The relationship between grammatical rules and reality is not a rational one; we can neither *justify* nor *invalidate* a grammatical rule empirically. The rule of grammar: 'Red is darker than pink' is not a conclusion we come to from observing colours, but a description of the way we use the terms 'red', 'darker than' and 'pink'; according to which, if I were to say: 'I'll wear the pink dress rather than the red; dark colours suit me better', I would not be speaking grammatically.

What truck, then, do some rules of grammar have with reality (besides the fact that people use them)? It is mostly in his last work, *On Certainty*, that Wittgenstein addresses the question. Here, he comes to realize that many of the sentences that we usually take to be empirical or epistemic conclusions – such as 'Here is a hand', 'The world exists', 'I have parents', 'Cats don't grow on trees' – are in fact expressions of rules of grammar, or rules of thought[6]. Their link with reality is not rational, but *causal* (OC 130-1, 429, 474) – causal in the sense of conditioned, as opposed to reasoned. Let me try to explain.

Our language-games are *conditioned* by the world we live in, indeed by regularities in the world, by 'very general facts of nature' (PI, p. 230), but this draws a *causal* connection, not a justificatory one: 'I cannot say that I have *good grounds* for the opinion that cats do not grow on trees or that I had a father and a mother' (OC 282; my emphasis). A fact may be, then, at the origin of a grammatical rule, but it will have been transformed into a rule as a result of conditioning, not reasoning. Repeated exposure will have, as it were, hammered the fact into the foundations of our thought:

> We say we know that water boils and does not freeze under such-and-such circumstances. Is it conceivable that we are wrong? Wouldn't a mistake topple all judgment with it? More: what could stand if that were to fall? Might someone discover something that made us say "It was a mistake"?
> Whatever may happen in the future, however water may behave in the future, – we *know* that up to now it has behaved *thus* in innumerable instances.

[6] Or indeed, 'laws of thought': 'The propositions of logic are 'laws of thought', 'because they bring out the essence of human thinking' – to put it more correctly: because they bring out, or shew, the essence, the technique, of thinking. They shew what thinking is and also shew kinds of thinking.' (RFM 133; I, 90)

> This fact is fused [*eingegossen*] into the foundations of our language-game. (OC 558)

Some facts have been fused into the bedrock, have become part of our conceptual scaffolding. Wittgenstein's image of *a fact* being *fused into* (or infused, or cast in, or poured into: *eingegossen*) our foundations is deliberate and crucial. It reminds us that many conceptual necessities are related to facts (or *a posteriori* discoveries), but that these facts have become part of our foundational or grammatical bedrock *through a nonepistemic process* – like repeated exposure or training (although our initial awareness of them might have been epistemic or empirical). Essentially, in the last sentence of the above passage, Wittgenstein is saying, before Kripke, that some of our conceptual necessities have their origin in *a posteriori* discoveries. As Rom Harré and Edward Madden explain:

> It is contingent that any man is a father, but conceptually necessary that being a father he has (or has had) a child. But that conceptual necessity is a reflection of the natural necessity of the father's role in the reproductive process, a role not known to some Aboriginal tribes even in historical times …. The conceptual necessity has come into being in response to an *a posteriori* discovery of the natural necessity of the father's role. … But so deeply has this conceptual necessity become embedded in the language, we forget that it has its source in an *a posteriori* discovery. (1975, 48)

The term: 'embedded', like 'fused', is meant to convey the nonratiocinated manner in which *a posteriori* conclusions have infiltrated our language-games. The terms 'fused' and 'embedded' call to mind others which Wittgenstein uses when he wants to avoid reference to an epistemic or rational assimilation: *conditioned* (OC 617), *swallowing* or *absorption* (OC 143), and he also speaks of some propositions *hardening* (OC 96) into rules. Indeed, that infiltration or assimilation be nonratiocinated is essential if grammar is to be autonomous or objective. A rule of grammar is not *answerable* to reality, but is assumed in all our language-games about reality; in all we can say or ask about reality. It is part of the unquestioned framework that allows us to form our hypotheses, our questions and answers about reality: 'it is anchored in all my questions and answers, so anchored that I cannot touch it' (OC 103).

To say that grammar is autonomous is to say that it is not *justifiable* by empirical facts or by human decision, and therefore to recognize its ob-

jectivity. Although grammatical rules – being conventional norms – are indeed a product of agreement (RFM 353; Z 428-30), the agreement here is not a concerted or deliberate agreement, but a 'peaceful agreement' (RFM 323), an 'agreement in form of life' (PI 241): essentially a blind agreement in our shared natural behaviour and human practices. It is this 'consensus of *action*: a consensus of doing the same thing, reacting in the same way' (LFM 183-4) – that is at the normative root of our grammar and our concepts. We might say that it is this 'shared sense of the obvious' (Williams 1999, 206) in our form of life that grammatical or normative 'propositions' formulate. So that where our rules of grammar have their root in facts, their anchorage is effected in and through practice, not decision. The objectivity or autonomy of grammatical rules is guaranteed by the blindness with which they are intersubjectively established and followed.

In *On Certainty*, then, Wittgenstein realizes how more far-reaching grammar is than he previously thought: it includes certainties of our world-picture which, when formulated, resemble empirical and contingent propositions:

> I want to say: propositions *of the form of* empirical propositions, and not only propositions of logic, form the foundation of all operating with thoughts (with language). (OC 401; my emphasis)
>
> If I say "*we assume* that the earth has existed for many years past" (or something similar), then of course it sounds strange that we should *assume* such a thing. But in the entire system of our language-games it belongs to the foundations. The assumption, one might say, forms the basis of action, and therefore, naturally, of thought. (OC 411)

These 'propositions' that resemble – are 'of the form of' – yet are not in fact empirical and epistemic propositions[7] are 'propositions which we affirm without special testing; propositions, that is, which have a peculiar *logical* role in the system of our empirical propositions' (OC 136; my emphasis) – in fact, rules of grammar. They can be:

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[7] 'That is, we are interested in the fact that about certain empirical propositions no doubt can exist if making judgments is to be possible at all. Or again: I am inclined to believe that not everything that has the form of an empirical proposition *is* one.' (OC 308)

1. certainties that were *once learned as empirical or epistemic propositions,* but have become so intersubjectively ingrained and fossilized, that they are no longer part of the wealth of empirical or epistemic propositions of a given community (e.g. modern educated adult) but belong to the 'scaffolding' of their thoughts (OC 211); e.g. 'The earth is round'; 'Trains arrive in train stations'; 'Human beings can go to the moon'.
2. certainties that *we may have learned as children, but as rules, not as questionable empirical facts*: 'Babies cannot speak'; 'People die'; 'People sometimes lie'; 'The earth has existed for a long time'.
3. certainties that may never have been expressed or taught; these are either *lived certainties*, or certainties that are *assimilated through repeated exposure*: e.g.; 'The world exists', 'The earth is a (large) body on whose surface we move', 'Trees do not gradually change into men and men into trees', 'If someone's head is cut off, he is dead and will never live again', 'I have a body', 'People usually smile or laugh when they're happy; cry when they're sad or in pain; yell or snap when they're angry'; 'I recognise the people I regularly live with'; 'The majority of people are not mistaken about their names'[8] etc.

The basic certainties listed in the last two groups can be called 'universal certainties' or 'universal rules of grammar' in that they belong to the scaffolding of thought of any normal human being. They are rules of grammar that are rooted (nonratiocinatively) in 'very general facts of nature' appertaining to 'the natural history of human beings' (PI 230, 415). Any empirical enquiry has to take such 'general facts of nature' as 'The world exists', 'Human beings live and die', or 'Newborn babies cannot speak' as part of its *logical* or *grammatical* starting points – its grammar.

So that language builds on reflexive gestures, as well as on lived and acquired certainties which in fact hardly differ from reflexive gestures and function like grammatical rules: they condition our use of language, determine meaning. Wittgenstein's grammar – indeed a partly *universal* grammar – replaces Chomsky's. But where Chomsky's universal grammar is in the head, Wittgenstein's grammar is external and does not consist of

[8] Most of the examples are drawn from *On Certainty*.

symbols or structures. It is really nothing but a way of acting – a logic *in action*[9]:

> Giving grounds, however, justifying the evidence, comes to an end; - but the end is not certain propositions' striking us immediately as true, i.e. it is not a kind of seeing on our part; it is our acting, which lies at the bottom of the language-game. (OC 204)

That is, although we can formulate our rules of grammar (as I've been doing here, and as Wittgenstein often does), this formulation or verbalization is always merely heuristic; an expression of a rule of grammar is never an *occurrence* of the mastery of that rule. Our mastery of grammar cannot meaningfully be expressed in the flow of the language game[10]; it can only *show* itself in what we do and *in* what we say (e.g. my mastery of the grammatical rule 'There exist beings other than myself' shows itself in my speaking to others or of others). Indeed, Wittgenstein often speaks of language mastery in terms of a know-*how*, of being able to *do* certain things, make acceptable moves in the language:

> "Understanding a word" may mean: *knowing* how it is used; *being able* to apply it. (PG, p. 47)
>
> "I can use the word 'yellow'" is like "I know how to move the king in chess". (PG, p. 49)
>
> But is it wrong to say: "A child that has mastered a language-game must *know* certain things"?

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[9] For more elaborate discussion, see Moyal-Sharrock 2003.

[10] In *On Certainty,* Wittgenstein gives several examples where stating one's mastery of a grammatical rule, or merely formulating a grammatical rule, in non-heuristic situations causes nothing but perplexity: 'If a forester goes into a wood with his men and says "*This* tree has got to be cut down, and *this* one and *this* one" – what if he then observes "I *know* that that's a tree"? (OC 353); 'So if I say to someone "I *know* that that's a tree" ... a philosopher could only use this statement to show that this form of speech is actually used. But if his use of it is not to be merely an observation about English grammar, he must give the circumstances in which this expression functions' (OC 433). For a more elaborate discussion of the (technical) ineffability of grammatical rules in the flow of the language-game – their being 'removed from the traffic' (OC 210) of ordinary discourse, see Moyal-Sharrock 2007, 65ff; 94ff.

> If instead of that one said "must be *able to do* certain things", that would be a pleonasm, yet this is just what I want to counter the first sentence with. (OC 534)

He also calls the acquisition of language, the acquisition of a *capacity*:

> When he first learns the names of colours – what is taught [the child]? Well, he learns, e.g. to call out 'red' on seeing something red … What I teach him … must be a *capacity*. So he *can* now bring something red at an order; or arrange objects according to colour. (Z 421)

So that we have come full circle back into the realm of action; and rightly so, for the primitivity of the deed, of action, is not only anthropological, but logical. When Wittgenstein writes that '[t]he *basic* form of the game must be one in which we act' (CE 397; my emphasis), he is not only talking about the primitivity of action in the acquisition of language, but in the *possibility* of language: 'it is our acting, which lies at the bottom of the language-game' (OC 204).

6. Rule-Following: Wittgenstein's answer to the productivity problem

How are we able to extend our limited acquired knowledge of language to new situations and contexts? Wittgenstein's answer to this is that the teaching of language is not a teaching of definitions, but the transmission of a technique; and that it does not aim for total regulation, but for self-regulation.

Wittgenstein did not disparage the use of ostensive definition in teaching, but deplored its being viewed as the paradigm of teaching:

> Teaching which is not meant to apply to anything but the examples given is different from that which '*points beyond*' them. (PI 208)

Indeed, Wittgenstein's rule-following argument shows precisely that generating new sentences is nothing but an instance of knowing how to go on, 'how to extend the speech that [we] have into new contexts' (Bruner 1983, 39).

Criteria determine whether a speaker is following a rule or using a word in accordance with the norm that is being inculcated. These criteria are public, not private; they can be transmitted to the child and invoked to guide and correct him in his attempts to use the words he is being taught.

The child's various attempts are guided (encouraged/discouraged) until enough training allows her to grasp what *sorts of contexts* are propitious for the use of the word: semantic development involves precisely 'becoming increasingly sensitive to how characteristics of different contexts constrain the words one can use' (Montgomery 2002, 373). However, though constraint is necessary, there is no exhaustive determination of use but an indication of proper use (the use is *constrained, not shackled*), which allows for and explains creativity/productivity. We might make an analogy here with a dog that is trained not to bite: the dog will not only not bite the people present during the training, but not bite in all similar contexts (e.g. unthreatening contexts). Or again, when the child is taught to open a door, she doesn't just learn to open *that* white, single panelled door which her mother is using to teach her, but all doors that she will come across in experience – whether they be white, black, double-panelled, glass and so on.

Productivity or creativity is possible inasmuch as rules are seen to be mere *enablers* of meaningful language. Grammatical rules do not completely convey or circumscribe use; they are *standards* of use. Wittgenstein speaks here of a 'ROUGH regularity' in our use of words (LW I, 968). So that meaning can be guided by specific rules and yet apply, and be seen to apply, to new instances. Grammatical rules are mere tools with which we can build a countless number of meaningful sentences. Wittgenstein's answer to the productivity problem is encapsulated in this passage: 'Yes, there is the great thing about language – that we can do what we haven't learnt' (LPP 28).

Communication, objectivity and constancy of meaning are made possible by a grammar, but that grammar is not innate; it is transmitted. It is social training, not a language of thought, that makes language possible, prevents communication from breaking down, and allows for the production of novel, meaningful sentences.

7. Conclusion

If universality or uniformity is the motivating force behind nativism, there is in our shared instinctive and second nature reactions universality and uniformity enough. We need no mental universal grammar to serve as the shared basis from which language, our language-games, can be acquired. It

is to the stream of life that we must go to find the bedrock of our language – or what Wittgenstein calls 'the riverbed of thought' (OC 97) – as well as its fluid and ever-changing waters.

Language is internally connected to life and action: this is what Wittgenstein's concept of the language-*game* conveys. At the root of language is a nonlinguistic framework of shared instinctive reactions, shared genetic make-up and a good dose of socio-cultural interaction. For Wittgenstein, our language could not *mean* independently of the context of our individual acts, of our cultural traditions, or our human form of life: 'Words have meaning only in the stream of life' (LW I, 913). Fodor's and Chomsky's failure to grasp the essentially *contextualized* nature of language is a major failure to appreciate the importance of language as a repository of our human form of life. And so, to Fodor's: 'one cannot learn a language unless one has a language', I am always tempted to reply: 'Get a life!'

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