On 'Directing the Child's Attention': Wittgensteinian Considerations Concerning Joint Attentional Learning

Christopher Joseph An

University of Edinburgh, School of Philosophy, Psychology and Language, Edinburgh, Scotland

INTRODUCTION

What does Wittgenstein say about the learning child? In PIb §6 he writes, 'An important part ... will consist in the teacher's pointing to the objects, directing the child's attention to them, and at the same time uttering a word'. Here Wittgenstein is describing what is called 'joint attention' which is agreed to be a rich resource for learning in children. But as Michael Luntley observes, the passage's promise is 'missed by most commentators' (2008, p. 706).¹

In this essay, I explore the developmental significance of this passage particularly with regards the learning that occurs in the prelinguistic child during joint attention. I refer to critical remarks elsewhere in the PIb which can help further convey what Wittgenstein means when he talks about attentional capacities and how they develop, including the relevant ability for responsiveness required for the learning to proceed. These considerations should motivate a defence of the social initiation model of learning contra Luntley's mentalist—individualist account, this despite conceding that certain prior capacities do play a role, though not a central one since these

¹ See Engelland (2014) for an alternative treatment of the topic.

do not pick out the relevant ability (responsiveness) required for learning to take place in the child.

LUNTLEY'S WITTGENSTEIN ON ATTENTION AND THE POSSIBILITY OF LEARNING

What makes PIb §6 a promising passage? Luntley notes that the capacity to attend is precisely what is exploited by the child when she learns her first words; that is, it is a capacity that can be naturally and uncontroversially credited to the pre-linguistic child since it does not require 'a conceptually structured engagement with things' (PIb §6). In that key remark Wittgenstein implicates the capacity to attend in the context of describing the act of ostension (particularly ostensive teaching as opposed to ostensive explanation) in word learning, the significance of which is recognised by Wittgenstein scholars. It could be that in discussing the significance of ostensive teaching one may already be implying the important role of attending. Ostensive teaching after all does not make sense if the learner does not have the capacity to attend. However, in focusing more closely on this capacity, Luntley's aim is to look at what is going on in the learning child during episodes of ostensive teaching. So, the learning that happens during ostensive teaching is in large part due to the child's capacity to attend. If Luntley is correct, what makes it possible for the pre-linguistic child to grasp the meaning of a word in ostensive teaching isn't that she is already pre-equipped with conceptual capacities but that she is pre-equipped with this capacity to attend which is a 'capacity prior to conceptual capacities' (PIb §6).

10.1010/278111912252.ch7, Ownhoaded from https://aninehethray wilesje.com/doi/10.102/97811912252.ch7 by University O'Edinburgh, Wiley Online Library on [09.082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Codition (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Codition (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Codition (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the article a

Luntley reads this pre-conceptual capacity as suggesting that the child already has some kind of robust awareness of the structure of things around her, which can then subsequently be trained in a way that enables her to grasp concepts associated with these objects. For Luntley, in order for the child to truly grasp the meaning of words associated with the object, her ability to attend to that object must already be robust enough to admit acquisition of relevant concepts:

[Y] ou only direct attention if the learner has the ability to attend to the target. The teacher directs attention, they do not establish attention [...] [T]here is no reason not to suppose that the child can attend to the shape prior to experiencing the shape

10.1010/278111912252.ch7, Ownhoaded from https://aninehethray wilesje.com/doi/10.102/97811912252.ch7 by University O'Edinburgh, Wiley Online Library on [09.082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Codition (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Codition (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Codition (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the article a

in tandem with hearing the word ... [T]his passage reads plainly as presupposing that the child already has a sufficient grasp of a structure which, like grammar, enables experience of the appropriate object ... The model here is not one in which a Russellian bare experience controls grasp of grammar, but one in which an ability to selectively attend is trained. (Luntley 2015, pp. 68-69)

In crediting the child with a pre-conceptual capacity, Luntley at the same time describes this capacity as indicating a kind of structure implicated in the child's experience, which facilitates word learning. This structure is instantiated in the regularity found in the surrounding activities that constitute basic pre-linguistic games which the child can readily participate in (p. xxvi). These activities convey 'pre-grammatical regularities' to the pre-linguistic child and a 'primitive sense of appropriateness independent of the ability to grasp a rule-governed appropriateness'; a 'primitive normativity' (p. xxvi). For Luntley, having this primitive structure in pre-linguistic games seems to offer the resources for explaining how the child can grasp more rule-governed forms of regularity found in our linguistic practices. The move from primitive normativity to more substantive forms of linguistic rule-following can thus be accounted for in a more naturalistic manner through a grasp of these pre-grammatical regularities.

To be able to participate in such pre-linguistic games Luntley credits children with 'basic abilities for joining-in games' (p. xxvii). Luntley's conception of the child's ability to 'join-in', however, is committed to a narrow mentalist view:

Much depends on how one specifies the basic abilities for joining-in games ... Grammar is explained, in part, by an account of those of our key mental abilities that equip us with the resources to join-in games ... These abilities are, for the main part, mental abilities. (p. xxvii)

This mentalistic take on the child's ability to join-in is further cashed out by Luntley in describing the child's capacity to attend:

The child already has an ability to select objects and shapes, to attend to these things and to take the teacher's pointing as a prompt to engage such attention. Training works here in tandem with a prior set of cognitive skills on the behalf of the

What can be gleaned from these foregoing statements are Luntley's commitments not only to a thoroughly mentalistic picture of the learning child but also to a kind of Cartesian reading of Wittgenstein. This seems counter to the canonical account which takes at least the later Wittgenstein as radically challenging the Cartesian conception of mind and its relation to the world. Luntley nevertheless sees Wittgenstein as inheriting a Cartesian individualism and mentalism whilst eschewing its foundationalist and metaphysical excesses (Luntley 2017, pp. 439, 448). Rather than a disembodied *res cogitans*, Luntley credits humans with a naturalistic *res imaginatio*; that is, we are creatures who have the innate ability and motivation to respond to aesthetic patterns (p. 450).

These are interesting suggestions and much more can perhaps be said of the role of imagination and the aesthetic in the learning child. However, I want to focus on Luntley's insistent individualism. Luntley's point here is on the possibility of learning in the pre-linguistic child. He charges Wittgenstein commentators who endorse a social initiation model of learning as offering no answer for bridging the gap between a normatively inept child and one who can display full-blown rule-following competence. For Luntley, no amount of social initiation is sufficient to account for this transition. Instead, we ought to credit the child with prior abilities such as joint attention (which Luntley seems to use to combine the capacities to attend and join-in). He challenges social initiation advocates to provide explanatory resources that account for the learning process in the child:

10.1010/278111912252.ch7, Ownhoaded from https://aninehethray wilesje.com/doi/10.102/97811912252.ch7 by University O'Edinburgh, Wiley Online Library on [09.082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Codition (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Codition (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Codition (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the article a

What differentiates the subject with a capacity to learn (acquire concepts) from those that do not? ... [N]o matter how much scaffolding from others might support learning and provide important platforms that speed up the process, without an account of the individual's resource by which they access social support, the social has nothing to support. [...] Let me be clear: the social is important. It is a powerful resource for learning, but it is not the key constitutive element to answering the invitation to explain how learning is possible ... It has to be something about the individual that explains how by giving them less than a conceptual encounter with things ... we can provide them enough whereby they come to grasp a new concept. (pp. 444–445)

10.1010/278111912252.ch7, Ownhoaded from https://aninehethray wilesje.com/doi/10.102/97811912252.ch7 by University O'Edinburgh, Wiley Online Library on [09.082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Codition (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Codition (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the applicable Centure Commons Library on [09.082023] Sebe Terms and Codition (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are go general by the article a

ON 'WHAT ONE DOES WHILE ONE DIRECTS ONE'S ATTENTION'

Luntley's broad conceptual claim in defence of his mentalist—individualist account of learning need not rely on the particular details about the cognitive resources available to the pre-linguistic child. His individualist account can accommodate a full-blown Fodorian nativism even though he himself is not keen on endorsing that. He is right in my view to direct our focus on the child's attentional abilities. There are however reasons to doubt his mentalist—individualist reading of joint attention.

To reiterate, Luntley imagines joint attention to work only if the child already possesses the ability to 'attend to a target' in the sense that the child's attentional awareness is already established from the get-go. The role of the teacher is thus merely to nudge this attention to the right place and the right object. But this seems to suggest that establishing attention in the first place is a fairly innocuous and straightforward affair. Luntley's account of child attention suggests that the child already has a well-developed attentional grasp of things around her. It does seem that way when we, say, attend to an object's shape or colour which appear to be readily accessible properties of objects. But this way of articulating how we attend to things sells our attentional capacities short. We possess more 'endogenous' forms of attention; that is, attention that is established not by outside stimuli but one that is directed by our goals and intentions. This latter form of attention is pervasive in our everyday adult experience but is less clear when it comes to children. It is not that young children cannot exercise 'executive control' over their attention, they probably can but perhaps in a minimal or primitive embodied form. Nevertheless, early markers of executive attention in children are poor indicators of later attentional control partly because of external influences including child–caregiver interactions (Posner et al. 2014). One need only look at children's manifestly disinhibited and distractible behaviour to infer that their attentional capacity may be equally disinhibited and distractible.

Elsewhere, Luntley does talk about the child's innate ability to 'join-in games'. But when we start talking about joining-in or participating in shared activities, it becomes much more difficult to talk about joint attention without implicating shared goals and intentions. Directing one's attention, especially within the context of wanting to join-in, has a purposive element. One has to take into account the other's awareness of these objects in light of the goals and intentions

that is shared between them. This seems more implausible an account given that it has to presuppose that the child can have a ready grasp of her teacher's goals, goals which the child could ostensibly not yet comprehend, much less claim as her own. Attending to things is thus not as simple as it initially seems as more complex patterns of cognition also need to be smuggled in. It is not just about receptivity to seemingly accessible perceptual properties of objects. Indeed the way in which we attend even to supposedly basic, accessible properties are also shaped by these endogenous factors. Wittgenstein seems to suggest as much:

[D]o you always do the *same* thing when you direct your attention to the colour? Imagine various different cases! To indicate a few:

'Is this blue the same as the blue over there? Do you see any difference?' –

You are mixing paints and you say, 'It's hard to get the blue of this sky'.

'It's turning fine, you can already see blue sky again'....

10.1010/278111912252.ch7, Ownhoaded from https://aninehethray wilesje.com/doi/10.102/97811912252.ch7, University O'Edinburgh, Wiley Online Library on [0.9082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are governed by the applicable Centure Commons Library

I want to say: this and similar things are what one does *while* one 'directs one's attention to this or that' ... Just as making a move in chess doesn't consist only in pushing a piece from here to there on the board – nor yet in the thoughts and feelings that accompany the move: but in the circumstances that we call 'playing a game of chess', 'solving a chess problem', and the like. (PIb §33)

At least two insights can be drawn here. One, there is no single straightforward way to pick out how one attends to objects or their supposedly basic properties. In other words, there is no such thing as attending to a shape or colour *simpliciter*. As Wittgenstein demonstrates, we should instead look at the myriad possible ways in which our attention – even to seemingly simple properties of objects – can be achieved. A painter attending to the blueness of the sky is different from the person attending to the blue sky in assessing the weather and so on. The second and related point is that one does not merely attend to shapes and colours in cognitive isolation; one attends to them within particular contexts, in light of certain activities one is engaged in. In this sense, attending to shapes or colours requires embedding in particular contexts or practices in which these properties have a certain cognitive salience. As shown by Wittgenstein, there are multiple varying contexts and practices where attending to colours are

10.1010/278111912252.ch7, Ownhoaded from https://aninehethray wilesje.com/doi/10.102/97811912252.ch7, University O'Edinburgh, Wiley Online Library on [0.9082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are governed by the applicable Centure Commons Library

In another crucial passage Wittgenstein refers not merely to our shared practices in general but to language itself: 'How do I recognize that this colour is red? – One answer would be: "I have learnt English" '(PIb §381). So, it seems that recognising and indeed attending to colour, particularly in the context of joining-in, constitutively involves being competent in a language-game. This suggests that attention is established not prior but during the course of one's learning even the simplest of language-games such as that of identifying colours. This picture of attending is in stark contrast to Luntley's account. He establishes attention from the get-go: when one learns a language-game, an already-established attention is deployed to select jointly targeted objects or properties of those objects.

Luntley does however anchor attention not on language-games but on basic pre-linguistic games whose 'grammar of activities ... is more basic than the grammar of language' (Luntley 2015, p. 73). An example he gives is the 'game' of coordinating emotional responses 'primitive notion of constraints-patterns of a co-ordination' (p. 66). This appeal to basic activities is meant to show how prior pre-conceptual abilities can be exploited to convey primitive patterns and regularities to the child which in turn affects her attention. This is a promising move, but it is unclear how competencies involved in grasping primitive regularities can be deployed similarly in grasping linguistic regularities since these regularities are supposedly different in kind and so may require different abilities for grasping. If the regularities observed are different, then attention also ought to be qualitatively different. As such, attention established prior to learning linguistic regularities (that is, awareness of primitive regularities) cannot be exploited in one's learning to grasp linguistic regularities. This picture ignores the way in which competencies involved in language-games are largely autonomous from those that apply to simpler pre-linguistic games. It is unclear how attentional patterns derived from simple activities can be exploited in learning linguistic patterns. In other words, each game picks out its own distinct attentional affordances despite seeming family resemblances with others.

Moreover, Luntley's mentalist–individualist notion of abilities seems odd given his talk of abilities that 'include a framework of surrounding activities' (p. 69). Appeals to mentalism and individualism disregards the sorts of abilities that integrate embodied,

To generalise: attention even of seemingly innocuous properties of objects is already suffused with endogenous elements (such as goals and intentions), which one can only acquire in the course of learning and engaging in shared activities as opposed to being established from the get-go or derived from simpler activities. If such is the function of attention when one joins-in, what can we now say with regards to the learning child? Contra Luntley, it would be rather indulgent to credit the child with an already established attentional capacity as such. To do so would attribute endogenous features in one's attention which are for the most part acquired from the learning process itself rather than being already set from the get-go. The problem for this account as Luntley anticipates is how learning can at all be possible if indeed the child does not at the outset possess an ability to grasp relevant regularities. This is a legitimate concern but the above considerations should make us wary of Luntley's own account. The capacity to attend is indeed important in learning but we need to think of this capacity in a different way. Wittgenstein's remarks on aspect perception offers some clues.

10.1010/278111912252.ch7, Ownhoaded from https://aninehethray wilesje.com/doi/10.102/97811912252.ch7, University O'Edinburgh, Wiley Online Library on [0.9082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are governed by the applicable Centure Commons Library

ON 'NOTICING AN ASPECT' AND 'MASTERY OF A TECHNIQUE'

In *Philosophy of Psychology – A Fragment*, which forms the second part of the *Investigations*, Wittgenstein explores the puzzling phenomenon of 'seeing' something in an object he had not noticed in previous occasions: 'I *see* that it has not changed; and yet I see it differently. I call this experience "noticing an aspect" ' (PPF §113). When an aspect 'lights up' as it were, it reveals a shift in one's attentional awareness 'as if the object had changed' before one's eyes (PPF §129). This shows how some features of objects can at first be 'hidden' from view. So, in learning to perceive an aspect one does not have an already-established awareness of it, it is more akin to a revelation that dawns on the person. One thus does not start out with a ready grasp of relevant patterns in perceiving an aspect. The patterns are revealed in terms of a significant qualitative change in how

10.1010/278111912252.ch7, Ownhoaded from https://aninehethray wilesje.com/doi/10.102/97811912252.ch7, University O'Edinburgh, Wiley Online Library on [0.9082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are governed by the applicable Centure Commons Library

one attends to or experiences that object. But how exactly does this qualitative change occur? For Wittgenstein,

Only of someone capable of making certain applications of the figure with facility would one say that he saw it now this way, now that way. [...] The substratum of this experience is the mastery of a technique. (PPF §222)

This remark can lead us to the alternative conception of attentional ability we are looking for. If mastering some technique is a critical condition for noticing or indeed attending to an aspect, then cashing out what it means to master a technique can help us understand just what kind of ability is involved when one attends.

First off, mastering a technique only makes sense when one does not already possess the relevant ability from the get-go; it is, for the most part, acquired. Secondly, mastering a technique seems to work at an agentive level where one can have a conscious, personal assessment of one's competence. It presupposes an active, responsive agent rather than some sub-personal and involuntary faculty working 'behind-the-scenes'. Thirdly, techniques are the sorts of capacities that are employed when one engages or performs in shared practices with clear goals. The relevant capacity here is what Gilbert Ryle calls an 'intelligent capacity' (1949/2009, p. 30). Intelligent capacities are those abilities which are deliberately trained and performed as opposed to merely being an intrinsic disposition, reflex or even an acquired habit (p. 42). Being intelligent, techniques have a performative element which require constant improvement, regulation and feedback. In other words, it is a substantially normative type of capacity.

Treating the capacity to attend as an intelligent capacity makes sense in light of Wittgenstein's insight linking attention to our shared practices. In one's initiation into a practice, one's attentional capacities are honed and deliberately trained. Joint attentional learning thus serves to develop the child's attention as a kind of intelligent capacity. The learning here involves constant improvement, regulation and feedback given to the child as she and her teacher jointly attend to objects. Through this highly-regulated and responsive training of her attentional capacity the child acquires a distinctive way of seeing things which serves as an enabling condition for her to engage and participate in the activities relevant to the shared practice.

However, this account of attention as an intelligent capacity still leaves unaddressed Luntley's lingering worry. If this capacity is acquired, how can the child acquire it without having a prior ability

to grasp critical feedback? The point here is that for the teacher's feedback to work the child must be apt and able to respond, that is, understand, which can only occur with a 'prior set of cognitive abilities' (Luntley 2015, p. 71). I would like to respond first, by contrasting prior and acquired abilities and exploring how responsiveness can obtain within both accounts. I maintain that it makes more sense to think of responsiveness as acquired. I will then discuss how the child acquires this responsiveness by looking at how we make sense of developing acquired abilities in general and cashing this out in learning to be responsive.

First, the prior ability that Luntley seems to have in mind looks something like a pre-packaged cognitive capacity that is, mostly, involuntarily deployed by the child. This sense of ability picks out cognitive mechanisms and intrinsic, automatic dispositions which operate largely instinctively and without relying on extra-mental features outside of inputs provided. These are what Ryle would call 'single-track dispositions' since their operations are fixed and 'nearly uniform' (Ryle 1949/2009, p. 31). We can perhaps grant that infants can automatically pick out communicative cues such as the verbal and facial expressions of others. Perhaps the infant can also produce instinctive reactions, in terms of basic affective or bodily gestures and expressions, based on these cues.² We can also imagine the caregiver responding to these reactions, thus beginning a rudimentary communicative exchange between the two. Is this exchange sufficient for responsiveness? Perhaps, but consider another scenario where the caregiver does not reciprocate the child's reactions. We can imagine the child continuously reacting to the verbal and facial cues of the caregiver without getting any reciprocal feedback. Can the child's reactions here constitute responsiveness or understanding? That is doubtful. The lack of reciprocal feedback will likely cause negative affect and eventual disengagement from the child (Tronick et al. 1978). Responsiveness requires communicative reciprocity, a sense of jointness or 'meeting of minds'. This is a capacity which cannot on its own rely on individual competencies and is instead constituted in co-regulated interaction dynamics (Froese

10.10.10.10.278111912252.6.2. Downloaded from https://caininelthray.wie.jc.com/oi/01/10.10.278111912252.6.2. Downloaded from https://caininelthray.wie.jc.com/oi/01/10.10.278111912252.6. Downloaded from https://caininelthray.wie.jc.com/oi/01/10.10.27811912252.6. Downloaded from https://caininelthray.wie.jc.com/oi/01/10.27811912252.6. Downloaded from https://caininelthray.wie.jc.com/oi/

² What particular instinctive reactions an infant possesses is a question I leave open here. Mimicry or imitation for example is often seen as a primitive capacity that perhaps even Wittgenstein himself would readily credit the child (see Doyle 2017). Recent empirical studies however cast doubt on the primitiveness of imitation (cf. Oostenbroek et al. 2016). Nevertheless, we can still credit infants - much like any other creature - with a wide range of primitive behavioural and affective dispositions that are, following Ryle, largely fixed, automatic, and instinctual.

10.1010/278111912252.ch7, Ownhoaded from https://aninehethray wilesje.com/doi/10.102/97811912252.ch7, University O'Edinburgh, Wiley Online Library on [0.9082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are governed by the applicable Centure Commons Library

Now I want to contrast this intrinsic ability with an acquired ability, one whose development and operation cannot be siloed into a pre-packaged cognitive disposition. Uncontroversial examples are the ability to drive or ride a bike. These skills of course depend on certain intrinsic prehensive and motor abilities and cognitive mechanisms but it does not make sense to talk about these mechanisms in the context of, say, knowing how to ride a bike. These mechanisms are simply assumed to be in operation when one talks about knowing how to ride a bike. One's ability to ride a bike depends instead on the dynamic comportment between one's body, the bike, and the surrounding environment. In the same manner that knowing how to ride a bike goes beyond merely having certain intrinsic abilities, we can think of knowing how to respond as going beyond merely picking out and reacting to communicative cues. Responsiveness may depend on these but they do not individuate the ability in question. Responsiveness also seems to rely on a dynamic comportment this time involving at least two subjects engaged in mutual reciprocal and sustained interaction. The dynamics here cannot be picked out by just the coordination between two individual cognitive systems working in tandem or reacting in automated fashion to each other's cues. The dynamics of mutual reciprocal and sustained interaction occupies a different level than that of mere capacities running in parallel. The latter lacks the sense of dynamic comportment with its surroundings whilst the former requires the kind of comportment that gives rise to a kind of 'dialectical' dynamic we find in a sustained interactive encounter.

Grasping responses in this sense critically relies on a sensitivity to the reciprocal relations that emerge from the interaction. This sensitivity isn't just about having a prior ability to pick out communicative cues, which whilst still having a role to play does not play the key constitutive element that Luntley seems to assert. It may be necessary but it is also grossly insufficient for responsiveness. Insofar as responsiveness is a key element in explaining the possibility of learning, deferring mostly to prior abilities offers a rather impoverished picture of the learning encounter. Compared with merely passively observing the communicative cues of the other, the reciprocal dynamics which issues from interaction makes a big difference in understanding appropriate responses (Butterfill 2013). One can also think of this in terms of second-personal engagements, which confer pedagogical

How then can the child transition from merely picking out cues and reacting instinctively to responding with acute sensitivity to the reciprocal dynamics of the interactive encounter? I have but a tentative suggestion. Learning how to ride a bike requires constant practice, until one reaches a point where the ability becomes 'second nature' in the sense of properly comporting with the dynamics between one's body, the bike, and the larger environment. As an acquired technique, this would not have arisen without constant practice, guidance, and improvement. One is clumsy with the bicycle at the beginning.

I believe something analogous can be said about learning to be responsive. Just imagine the mumbling child struggling to utter the right words. Responding appropriately is not assured at the onset of learning. This responsiveness is achieved once one has properly comported with the reciprocal dynamics involved. It begins however with a lack and a struggle. The child's intrinsic capacity to pick out communicative cues – whilst not yet capturing the reciprocal dynamics required for responsiveness – can be described as a foot in the door. For the child to enter into a responsive encounter, someone else has to open that door. Thus, certain extra-mental facilitating conditions need to further obtain to produce the interactive dynamics such as mainly the presence of a reciprocating partner. Once this reciprocal relation is established, the interactive dynamics can now get off the ground. Of course, being a pre-linguistic interactive encounter, the child can only begin to reciprocate with rudimentary affective or bodily expressions, which may at the beginning be merely instinctual. But with the presence of a reciprocating partner regulating that encounter, the child can develop finer-grained expressions as the interaction progresses. This back-and-forth expressive interaction can be considered the ground and precursor to the more full-blown interaction exhibited by linguistic communication. The interaction does not so much convey to the child primitive patterns and regularities but rather an incipient form of turn-taking which is structured around the back-and-forth interactive activity between the caregiver and child (Berducci 2010). Moreover, these further expressions arising from the interactive encounter need not depend anymore on fixed instinctive reactions but on the rapport or relational dynamics which 10.1010/278111912252.ch7, Ownhoaded from https://aninehethray wilesje.com/doi/10.102/97811912252.ch7, University O'Edinburgh, Wiley Online Library on [0.9082023] Sebe Terms and Coditionion (https://aninehethray.wilesje.com/htms-do-condition) on Wiley Online Library or ror less or use. (A article are governed by the applicable Centure Commons Library

10.1002/9781119912202.ch7, Downloaded from https://onlinelibrary.wiley.com/obi/10.1002/978119912262-ch7 by University O' Edinburgh, Wiley Online Library on [09082023]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-und-conditions) on Wiley Online Library for rules of use; OA articles are governed by the apalicable/Evariative Commons Library wiley.com/terms-und-conditions) on Wiley Online Library for rules of use; OA articles are governed by the apalicable/Evariative Commons Library wiley.com/terms-und-conditions) on Wiley Online Library wiley.com/terms-und-conditions) on Wiley Online Library for rules of use; OA articles are governed by the apalicable (Parative Commons Library wiley.com/terms-und-conditions) on Wiley Online Library wiley.com/terms-und-conditions) on Wiley Online Library for rules of use; OA articles are governed by the apalicable (Parative Commons Library wiley.com/terms-und-conditions) on Wiley Online Library wiley.com/terms-und-conditions) on Wiley Online Library wiley.com/terms-und-conditions on Wiley Online Library wiley.com/terms-und-conditions) on Wiley Online Library wiley.com/terms-und-conditions on Wiley Online Library wiley.com/terms-und-conditions) on Wiley Online Library wiley.com/terms-und-conditions on Wiley Online Library wiley.com/terms-und-conditions) on Wiley Online Library wiley.com/terms-und-conditions on Wiley Online Library wiley.com/terms-und-conditions-und-condi

in turn are regulated by the rules that constrain possible moves within the interactive encounter. The child's progression lies not in the increasing sophistication of the interaction but in the deepening of reciprocal, interpersonal relationships instantiated in the interaction (Segerdahl 2017). That is, the responses build on each other creating a scaffolding regulated by the interpersonal relations between them and established by the practical rules that constrain the interactive encounter. This is the emergent interactive space within which our acquired capacity for responsiveness can develop.

CONCLUSION

Returning to §6, we can say that directing the child's attention occurs within this interactive space, established by mutual reciprocal and sustained interactive encounters. This interactive space begins in a dyadic relation between child and caregiver. But in ostensive teaching the child's awareness is diverted not just to a fellow subject but to objects in the surrounding environment. The responsiveness established in the dyadic interaction now carries over to joint attentional learning. The learning, insofar as directing the child's attention to objects is concerned, is suffused with sociality from the get-go. The child learns about the objects of attention in terms of their socialcultural significance, their meaning in a shared practice. The attentional capacity acquired in this account undergoes this process of socialisation. This socialisation of attention issues a 'discursively structured consciousness' in the child, that is, the noticing or 'dawning' of aspects in objects jointly or interactively attended to (Eldridge 2010). In this picture of joint attentional learning one need not defer to prior abilities for joining-in since the child is already party to the reciprocal dynamics and rudimentary rapport established in more incipient interactive encounters.

The remarks in the *Investigations* adduced above along with further reflections on these remarks advance a picture of learning conducive to the social initiation model. Luntley is correct in pointing out the importance of joint attention in a Wittgensteinian account of learning but his mentalist-individualist interpretation credits the child with intrinsic abilities which hardly capture the kind of responsiveness needed for learning to proceed. What the child learns is not determined by the mere operation of these prior abilities. The site of learning lies in a space established and scaffolded by the responsive dynamics and reciprocal relations that arise from an interactive encounter. This interactive space should occupy a central place in an

account of learning. A modest set of intrinsic capacities such as a sensitivity to communicative cues, perhaps involving primitive affectivity and bodily gestures, also have a role but these do not pick out the relevant capacity for responsiveness required for the learning to proceed. Responsiveness is an ability that is constitutively embedded in a space of mutual reciprocal and sustained interactions. I suggest that this interactive space is the site where learning occurs for the child.³

10.10.10.10.10.278111912252.2c.1. Downloaded from https://caininelthray.wie.jc.com/oi/10.10.0787111912252.2c.17 by University of Ediabutgh, Wiley Online Library on [9.90.82023] See the Terms and Coditions of https://caininelthray.wie.jc.com/htms-ad-conditions) on Wiley Online Library or rules of use 9.0 a miches are governed by the applicable Centure Commons Lienense and Coditions of https://caininelthray.wie.jc.com/htms-ad-conditions) on Wiley Online Library or rules of use 9.0 a miches are governed by the applicable Centure Commons Lienense and Coditions of https://caininelthray.wie.jc.com/htms-ad-conditions) on Wiley Online Library or rules of use 9.0 a miches are governed by the applicable Centure Commons Lienense and Coditions of https://caininelthray.wie.jc.com/htms-ad-conditions) on Wiley Online Library or rules of use 9.0 a miches are governed by the applicable Centure Commons Lienense and Coditions of the properties of the applicable Commons Lienense and Coditions and Codi

³ I would like to thank Paul Standish, Jan Derry, Mal Leicester, Rebeca Perez Leon, Leila Osman and others for a fruitful discussion. Zosimo Lee and Rowena Azada-Palacios are thanked for their support, and Adrian Skilbeck for editorial feedback.