

TOWARDS A GENERATIVE RELATIONAL THEORY OF SUBJECT FORMATION

A PRELIMINARY INQUIRY INTO EARLY DEVELOPMENT

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For the forest girl.

Abstract

The study of early development ordinarily takes the subject as given and traces the capacities it acquires. This paper takes the prior question as its object, namely how a subject is formed at all, and argues that the subject is the relational outcome of development rather than its starting point. It carries forward a research programme that has replaced the individual with generative relational being and the sign with a generative relational epistemology, and it now replaces the cognitive ability, as the unit of analysis in early development, with the relational capacity. Generative relational capacity is defined as the capacity to enter, sustain, transform, and reproduce shared relational fields, and the classic findings of developmental research, joint attention, gaze following, social referencing, and theory of mind, are reread as empirical manifestations of one developing capacity rather than as discrete cognitive modules, with the attributions called theory of mind and the earlier scene of joint attention taken as showings of the same capacity in different registers. The account is then opened onto its social-ecological condition. Subject formation proceeds within a relational ecology, the historically and culturally organized configuration that makes some relational fields possible while constraining others, and is never a sealed dyadic affair. A comparative note on institutional childcare sets three grammars of relational-field formation beside one another, and finds in each a distinct configuration of achievement and cost, with no one of them a model. On this basis the political economy of subject formation is restated. Capital does not shape the child directly; it reconfigures the relational ecology, and its most recent frontier, beyond the extraction of value from the sign and from relation, is an invasion of the generative process itself, a reach that damages the formation of a subject together with its own subsequent power to generate. The account closes, in the manner it requires of itself, on the questions that a generative developmental psychology would have to take up.

Keywords: subject formation; generative relational being; relational capacity; joint attention; theory of mind; relational ecology; political economy of childhood; historical materialism; the subject.

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1 INTRODUCTION: THE UNEXPLAINED SUBJECT

How is a subject formed? The question is easy to pass over, because so much that is known about early life seems already to answer it. There are detailed and well-founded accounts of

how a child comes to speak, to remember, to attribute mental states to others, to regulate its own attention and conduct. Set side by side, these accounts appear to describe the making of a subject. They do not. Each of them describes the acquisition of a capacity by a subject whose existence is presupposed before the acquisition begins. The child who learns to speak is already there to learn; the child who comes to attribute mental states is already there to attribute them. The subject is the silent premise of the developmental literature, the one thing its explanations do not explain.

This paper takes that premise as its object. It asks how a subject comes to be, in place of asking only which capacities a subject acquires, and it answers that the subject is generated within relation and is the outcome of development rather than its point of departure. Early development is chosen as the site of the inquiry because it is here, at the beginning, that the generation of a subject can be observed as it happens, and not because the question is confined to childhood. Elsewhere the subject is already formed, and its relational origin is covered over by its completion. At the cradle the covering is not yet in place, and one may watch the subject settle out of relation rather than presuppose it as relation's condition.

The inquiry belongs to a research programme with a recognizable signature, that of the successive displacement of the unit of analysis. The programme's first paper displaced the individual and put in its place generative relational being. Its treatment of concepts displaced the sign and put in its place a generative relational epistemology. The present paper performs the same operation at the developmental scale. It displaces the cognitive ability and puts in its place the relational capacity. The classic concepts of early social cognition are not discarded in this displacement. They are relocated. Joint attention, gaze following, social referencing, and theory of mind cease to be the organizing terms of the account and become the empirical manifestations, at the surface of observable behaviour, of a single underlying generative process that the account takes as its true subject.

Two tasks follow, and the paper is built around them. The first is a rereading of early development, in which the microscale findings of the developmental literature are reconstructed within the generative relational frame. This is the paper's foundation, and it occupies its longest section. The second is an opening of the account onto the social and historical ecology within which subject formation proceeds, in which the political economy of childhood, and the place of capital, culture, and the state in the formation of subjects, are brought within the frame. This second task is preliminary by intention. It marks an opening toward social theory rather than a completed traversal of it, and it is offered as a note and a sketch, in keeping with the standing of the whole as a preliminary inquiry. The account throughout declines to issue a doctrine of correct rearing, and closes on plural questions rather than on a single answer, for reasons that the argument itself will make plain.

2 BEYOND THE INDIVIDUAL: SUBJECT FORMATION AS A RELATIONAL PROCESS

The dominant frameworks in the study of early development take the subject as given. Research into cognition, language, theory of mind, attachment, and executive function describes, with great precision, the capacities a subject acquires and the sequence in which it acquires them. In almost every case the subject whose capacities are traced is presupposed at the outset, as an entity already there, awaiting the maturation of what it holds within. The question of how that subject comes to be at all is left to one side. This paper takes that question as its object. It proceeds on the premise that the subject is the outcome of development rather than its starting point, and that the outcome is generated relationally.

The premise belongs to a research programme already under way. The mother paper of this

programme replaced the individual, as the unit of analysis, with generative relational being.¹ A later paper replaced the sign, as the unit of analysis, with a generative relational epistemology.² The present paper carries the same displacement one stage further. It replaces the cognitive ability, as the unit of analysis in early development, with the relational capacity. Where developmental psychology asks which abilities a child acquires and when, this paper asks how relation generates, step by step, a subject that can itself continue to generate relation.

2.1 THE REVERSAL OF ORDER

The traditional account of development runs from the individual to the social. An individual is posited first; it then enters interaction; through interaction it develops; and the social is the aggregate within which this development is housed. Relation, on this account, is something that a pre-existing individual subsequently enters. The order of generative relational being reverses this sequence. The relational field is first. Within it a generative reproduction takes place. And the subject arises as the settling, the sedimentation, of that reproduction. The subject is not prior to relation. The subject is what relation, continuously reproduced, comes to generate.

This reversal invites at once an objection that must be met before anything further is said, since on it the whole account depends. If the subject is generated within relation, and does not enter relation already formed, then what stands at the infant's side of the relation before the subject is there? Who, or what, enters the relation, if not a subject? To leave the objection unanswered is to let the term relation smuggle back in, on the infant's side, the very completed subject the account set out to derive, and so to reduce the reversal to a form of words.

The answer is that the earliest relation is not a relation between two subjects. It is an undivided relational whole within which no boundary between self and other has yet been drawn. What stands at the infant's side is a field of relational tension not yet anchored to an *I*, and not a subject in miniature. The boundary between self and other is the product of this field and not its precondition, drawn within it through a work of differentiation carried out over time. The subject is the phase that this field accumulates once the work of differentiation has begun to settle, the residue that a relational cycle carries back with it, and not the agent that set the cycle in motion.

The subject is generated within relation, and is not prior to it. The earliest relation is an undivided relational field within which the boundary between self and other is subsequently drawn, and not a relation between two constituted subjects. What stands at the infant's side before that boundary is a field of relational tension not yet anchored to an *I*. Subject formation names the process by which this field, through continued generative reproduction, comes to sediment a subject, and with it the capacity to continue the reproduction.

The psychoanalytic account of the mirror stage marks one moment of this differentiating work. In that account the infant arrives at a first unity of the self by way of an image received from without, so that the self is constituted through a relation to what it is not, and the ground of the self is placed, from the beginning, outside the self.³ What the present account takes from this is the structure and not the single event. The self is drawn from a relation to an exterior; the boundary is an achievement and not a datum. Yet the drawing of the boundary is not accomplished once, in a single specular instant. It is a continued field dynamics, carried

¹The relational ontology is developed in the author's *Responding to the Crises of Symbol and Subject in Modernity* [1].

²See *The Relational Mode of Being of Concepts* [3].

³The mirror stage is set out in Lacan's *Écrits* [8].

on across the whole of early development, of which the specular moment is one episode. The subject is sustained as an ongoing accomplishment of this dynamics, and not secured once and released.

2.2 FOUR CONCEPTS AND A DEFINITION

The account requires four concepts, which stand to one another in an ordered relation. Named together they compose the theoretical map within which the argument of this paper moves.

Generative Relational Being names the ontological level. It holds that relation is the mode in which beings are generated and sustained, in place of the view that what is is first an individual which subsequently enters relation.

Relational Reproduction names the level of dynamics. It describes how a relation, once generated, is carried forward, sustained, and reproduced across time.

Subject Formation names the developmental level. It describes how, within continued relational reproduction, a subject comes to be generated.

Relational Ecology names the socio-ecological level. It describes the historically and culturally organized configuration of persons, institutions, material environments, norms, and practices that makes certain relational fields possible while constraining others, and so constitutes the condition under which subject formation unfolds.

These four are levels of a single account and not competing theories. Generative relational being states what there is; relational reproduction states how what there is keeps itself in being; subject formation states how, at the developmental scale, a subject is generated within that keeping; and relational ecology states the wider configuration within which the whole proceeds. The fourth concept is introduced by this paper. It is required because subject formation is never a purely dyadic affair sealed between an infant and a caregiver. The dyad is itself situated within, and conditioned by, a wider configuration of family, community, institution, culture, and economy, and this configuration is not a neutral backdrop. It enters into the formation of the subject by shaping which relational fields can form at all. To think subject formation without it is to mistake a conditioned process for an isolated one.

Within this map the central developmental concept can now be defined.

Generative Relational Capacity is the capacity to enter, sustain, transform, and reproduce shared relational fields. Subject formation is the continuous emergence of this capacity through generative participation in shared relational fields.

Two features of this definition require emphasis, since on them the argument of the following section depends. The first is that subject formation is defined through a capacity and not through a state. What develops is the growing power to enter, hold, and remake relation, and not the filling of an interior. The second is a discipline in the reading of the term capacity, which must not be permitted to reintroduce, in a new vocabulary, the very interior kernel the account has set aside. Generative relational capacity is not a module lodged within the individual, a new organ awaiting maturation. It is the sedimentation, on the individual's side, of a property of the field. What grows, strictly stated, is the field's power to generate a subject that can itself continue to generate relation. The capacity is spoken of as the child's because it is borne by the child, and it is understood as the field's because it is generated there. The whole difficulty of the account, and its whole distinctness from an internalist developmental psychology, lies in

holding both of these at once.

2.3 THE HISTORICAL CONSTITUTION OF THE ECOLOGY

Relational ecology, as defined above, describes a configuration at a given time. It is a synchronic concept, a cross-section. A cross-section does not by itself say how the configuration came to be, why it holds the shape it holds, or how it changes. That the configuration is historically produced, and that its production is conditioned by the prevailing organization of material and economic life, is a further claim, diachronic where the first is synchronic, and it belongs to the historical and dialectical materialism that the mother paper draws into the framework.⁴

A relational ecology is a historical product. The dense infrastructure of institutional child-care in one society, and the market pricing of care in another, are formations of a determinate historical moment rather than expressions of a fixed cultural essence, conditioned by the organization of labour, the movement of women into waged work, the fall of the birth rate, and the reach of the market into the household. The significance of stating this is twofold. It secures the ecology against being read as a cultural given, and so against the essentialism that would treat one society's arrangements as the timeless expression of its character. And it locates the ecology within a history, and so within the reach of critique and of change, since what a determinate history has produced a further history can transform.

Yet the historical conditioning of the ecology must be stated with a dialectical measure, and not as a mechanical determination of the subject by an economic base. The relational subject retains its ontological priority over any structure it produces, and the generativity of the relational field is an active process, one that carries back a remainder a prior history could not fully settle in advance. The ecology conditions the fields that can form; it does not determine, without remainder, the subject that forms within them. The downward pressure of the structure and the upward generativity of the field stand in a tension, and it is this tension, and not the one-way action of a base upon a superstructure, that the term dialectical here names. The subject is conditioned by its ecology and is not exhausted by it, and the margin between the conditioning and the exhaustion is the margin within which a subject is generated at all.

3 EARLY DEVELOPMENT AS RELATIONAL FORMATION

The findings of developmental research into early social cognition are secure. Infants come to share attention with a caregiver upon a third thing; they come to follow another's gaze to its object; they come to consult another's emotional expression before appraising an ambiguous situation; and they come, later, to attribute to others mental states that differ from their own. These findings are not in dispute, and nothing in what follows disputes them. What is at issue is their organization. The developmental literature tends to present them as a set of distinct competences, each a module of social cognition maturing on its own schedule, and to read the sequence as the assembly, piece by piece, of a mind equipped to represent other minds. This section proposes a different organization, and offers it as a more perspicuous reading of the same findings, and not as a claim to have found the essence beneath them. It reads each of the classic findings as an empirical manifestation, at the surface of observable behaviour, of the development of generative relational capacity, the developing power to construct, to know, and to reproduce a subject within a network of relations of growing complexity. It reads them, that is, as so many faces of one developing capacity, and not as the assembly of a representational mind.

⁴The place of historical and dialectical materialism within the framework is set out in the mother paper [1]; its bearing on the non-linear development of relation is drawn on in the series' treatment of intimacy under power.

The account holds its own reading to the discipline it holds everything else to. The series has argued that concepts are themselves relational beings, generated within relation and possessing no standing prior to it.⁵ Generative relational capacity is such a concept, and the reading offered here is one construal, itself relationally generated, of a development that admits of others. It does not claim to displace the accounts it reads. It stands alongside them, and it may share their structure at many points. It redescribes the organization of the competences the developmental literature describes, and does not deny them. Where the module theory finds a false-belief competence, this reading finds it too, and disputes only whether it stands alone or shows a capacity that other findings show as well.

3.1 ONE CAPACITY, MANY MANIFESTATIONS

To read the classic findings as manifestations of one capacity is not to collapse their differences, nor to posit a hidden essence of which they would be the appearances. It is to offer a way of seeing them together, under a single description, that does more justice to what they share than the reading which files them as separate modules. The description is this. What the classic findings show, each in its own manner, is the development of a capacity to construct, to know, and to reproduce a subject within a network of relations, and to do so as that network grows in complexity. Construction, cognition, and reproduction are three aspects of one capacity and not three faculties, and the findings display now one aspect and now another.

A descriptive observation helps to see how the findings are related, and it must be handled with care, lest it be mistaken for the thing it only describes. The relations within which a subject is formed may be described by the number of their terms. There is the dyadic relation of self and other, within which the boundary of the self is first drawn, and of which the mirror stage treated in the foregoing section is one episode. There is the triadic relation of self, other, and a third, within which a subject holds together its own orientation and another's upon a common term. And there are relations of more terms, the widening networks within which a subject later stands. The classic findings can be located by this description, gaze following and joint attention and social referencing within the triadic, and the attributions the literature calls theory of mind within the triadic and the wider networks alike. Yet the number of terms is a description of the relations and not an account of the capacity, and its increase is not a ladder the child climbs by fixed steps. It is a way of noting how many parties a given relation holds together, and the development it helps to describe is the deepening of the one capacity to construct, know, and reproduce a subject within relations of any number of terms, and not a progression through a sequence of stages.

It follows that theory of mind is not the summit of a sequence with joint attention below it. Joint attention and theory of mind are showings of the same capacity within the triadic relation, the one in the register of behaviour and the other in the register of the symbolic. When a child holds its own attention and a caregiver's together upon a third thing, it is already doing, in the medium of shared looking, what the false-belief task will later ask it to do in the medium of the proposition, holding together within a single relation a divergence of orientation upon a common term. Joint attention is a manifestation of the capacity the literature names theory of mind, shown early and in behaviour, and theory of mind is a later and symbolically explicit showing of the same capacity to construct, know, and reproduce a subject within a relation of several terms.

⁵The relational mode of being of concepts is developed in *The Relational Mode of Being of Concepts* [3].

Joint attention, gaze following, social referencing, and the attributions called theory of mind are manifestations of one developing capacity to construct, to know, and to reproduce a subject within a network of relations, and not discrete cognitive modules. The number of terms in a relation, dyadic, triadic, or wider, is a description of the relations and not an account of the capacity, and its increase is not a ladder the child climbs by fixed steps. Theory of mind is one showing, in the register of the symbolic, of the same capacity that joint attention shows earlier in the register of behaviour, and not the summit of a sequence.

A discipline is to be kept throughout the readings that follow, the discipline already stated in the foregoing section. To speak of a developing capacity is not to lodge a developing module within the child. What deepens is the field's power to generate a subject who can construct, know, and reproduce a subject within relations of a growing complexity, and the capacity is the child's only as the sedimentation, on the child's side, of that power. The readings below name the child as the bearer of each accomplishment because the child bears it, and understand each accomplishment as generated in the field.

3.2 FROM DYADIC INTERACTION TO SHARED RELATIONAL FIELDS

Before any of the classic findings appears, there is the earliest reciprocity of infant and caregiver, the mutual adjustment of gaze, voice, and timing that the developmental literature has described as a primary intersubjectivity.⁶ Under the traditional reading there are here two parties, an infant and a caregiver, who coordinate their separate behaviours. Under the present reading the unit is the relation between the two parties rather than the parties themselves. What the reciprocity establishes is a shared relational field, the first such field, within which the differentiation of self and other will later be drawn, and not a bridge between two constituted interiors. The synchrony of the exchange is the field taking hold, and the infant's side of the exchange is a locus of relational tension being drawn into form, and not yet a subject coordinating with another. The displacement of the unit from the parties to the relation is the first and governing move of the account, and every reading that follows depends on it.

3.3 JOINT ATTENTION AS THE FIRST RELATIONAL COMMUNITY

At around the end of the first year the child comes to share attention with a caregiver upon a third thing, looking to the object and back to the caregiver, checking that the attention is shared.⁷ The standard reading treats this as the alignment of two attentional foci, an early sign that the child grasps the other as a locus of attention that can be tracked. The present reading takes it otherwise. What is established in joint attention is the field itself, a triadic structure in which caregiver, child, and object stand together, and within which a shared meaning begins to circulate, and not the alignment of two given foci. The object is the medium of this field and not its point. What the child produces, in the looking to the object and back, is the first maintenance, by two together, of a single relational field, and not the proposition that the other attends to what it attends to.

This is the paradigm, in early life, of a good cycle. Attention traverses a loop, from child to object to caregiver and back to child, and the loop does not return the child to where it began. It carries back a remainder, a world held in common, a meaning vested in neither party alone but generated between them. In the terms the series has used elsewhere, the loop accumulates

⁶The reciprocal, finely timed exchange of early infant-caregiver interaction is described in Trevarthen and Aitken [11].

⁷Joint attention as a foundation of early social cognition is set out in Tomasello [10].

a positive holonomy, and the remainder it carries back is irreducible to the sum of what the two brought to it. Joint attention is the earliest scene in which a relational field generates, endogenously and between the parties, a value that neither possessed in advance. It is the first relational community, and in holding together its own orientation and another's upon a common third it already does, in the medium of shared looking, what the child will later be asked to do in the medium of the proposition.

3.4 GAZE FOLLOWING AS ENTRY INTO THE WORLD OF ANOTHER

Somewhat before or alongside joint attention the child comes to follow another's gaze, turning to look where the other looks. The standard reading treats gaze following as an early achievement of social cognition, a precursor of the inference from eyes to attention. The present reading takes it as the child's entry into the curvature of another. In following the gaze the child does not infer a hidden attentional state and then orient accordingly; it lets its own relational orientation be bent by the direction of the other, and so enters, bodily and before any proposition, a relational field the other has opened. What the child comes to bear, in gaze following, is a first form of the trust that the other's orientation opens a relational possibility worth entering, that the world toward which the other is turned is a world worth entering. This is the earliest form of what the series has elsewhere called epistemic hospitality, the tuning of oneself to the other's direction before one can represent the other in a proposition. It is the first entry of a subject into the world of another, and so a moment in the generation of the subject itself.

3.5 SOCIAL REFERENCING AND THE MEDIATION OF MEANING

At around the end of the first year, a child met by an ambiguous situation, an unfamiliar object, a possible drop, the approach of a stranger, looks to the caregiver's face and appraises the situation according to what it finds there, advancing if the face is warm and withdrawing if it is alarmed.⁸ The standard reading treats this social referencing as the use of another's emotion to appraise danger, a resourceful piece of social information-gathering. The present reading takes it to disclose something of the structure of meaning itself, and for that reason this scene bears more weight in the argument than the others, for it is the door through which the account passes from development to political economy.

What the child undergoes in social referencing is the discovery that meaning has no internal, self-supplying source. The situation does not carry its sense on its face, to be read off directly by the child alone. Its sense must be settled, and the settling passes through the other. The child cannot appraise the situation from within its own resources; it must route the appraisal through the caregiver, and receive the situation's meaning back from that circuit. Here, at the end of the first year, is the earliest appearance of a structure the series has traced at every scale, that the settling of meaning requires a passage through another, a passage the psychoanalytic tradition names by the function of the Other.⁹ The child's meaning is constituted through a circuit it does not command, and the position at the far end of that circuit, the position to which the child looks back, is the position from which its world is given its sense.

The weight of this scene lies in a consequence that the fourth section will draw out. Because the settling of meaning requires, from the first, a passage through another, the position at the far end of the circuit is a position that can be occupied. It is not a fixed property of the caregiver.

⁸The regulation of an infant's appraisal by the caregiver's emotional expression is demonstrated in Sorce, Emde, Campos, and Klinnert [12].

⁹The requirement that meaning be settled through a passage that the subject does not itself command is the developmental appearance of the function elaborated, at the level of the symbolic order, in Lacan and drawn on throughout this series; see *Relational Value under the Symbolic Crisis* [2].

It is a place in a structure, the place to which the child looks back for the sense of its world, and whatever comes to occupy that place comes to settle the child's world. The circuit of social referencing is, for this reason, the earliest point at which the formation of a subject lies open to capture. When the face the child looks back to is no longer a face, the position has been occupied by something else, and the settling of the child's world proceeds from there. The account holds this consequence in reserve, and returns to it when it reaches the question of capital.

3.6 THEORY OF MIND AS ONE SHOWING OF THE CAPACITY

Around the age of four the child comes to pass the tasks by which the developmental literature marks the possession of a theory of mind, attributing to another a belief that differs from the child's own and that the child knows to be false.¹⁰ This is the point at which the standard account locates the threshold of a certain maturity, the acquisition of the module by which one mind represents another. The present account neither disputes the finding nor opposes the competence it names. It relocates it. Theory of mind is one showing, at the register of the symbolic and in the form of a competence with propositional content, of the capacity to construct, know, and reproduce a subject within a relation of several terms. It is not a competence that arrives late atop a sequence of lower ones. It is the same holding-together of divergent orientations upon a common term that joint attention displayed already in the register of behaviour, now carried out in the register of the proposition, and it can track, in that register, the divergence of relational perspectives.

The very name theory of mind carries the internalist premise the account sets aside. It supposes that the other's mind is a hidden interior to be theorized, inferred from without across a gap, and it makes the crossing of that gap the mark of arrival. On the present account there is no gap to be crossed by inference, because the child has never been sealed off from the other to begin with. The child has been within shared relational fields from before it was a distinct subject, and what it comes to at four is a reflective, symbolically articulated grasp of a divergence of perspective within a relation it has inhabited all along, and not a first inferential access to a foreign interior. A more faithful name for the family of accomplishments at issue would speak of relational attunement in place of a theory of mind, since the child is continually shaped within, and shaping, a common relational field, rather than theorizing a hidden other. Theory of mind is one late and symbolically explicit showing of that attunement, and neither the threshold of subjectivity nor a summit above the showings that precede it.

3.7 LANGUAGE AS THE STABILIZATION OF RELATION

The development does not terminate in theory of mind, and it does not terminate in language. Language is, even so, the medium in which its later reaches are consolidated, and a word on it closes this section. The standard picture runs from joint attention through the acquisition of vocabulary to language, and treats the word as a label affixed to a thing, attention being the mechanism by which child and caregiver fix the label to its referent together. The present account inserts a term. From joint attention there proceeds first a shared relational field; within that field a shared meaning circulates; and language is the stabilization of that circulating meaning into a form that can be carried, repeated, and relied upon. The word is first a stabilization of a relation, a holding-fast of a meaning that was generated between the parties in a shared field, rather than a label for a thing. This is why language, in the account the series has given elsewhere, rests upon the settling of meaning through the Other and shares in the vulnerability

¹⁰The consolidation of false-belief understanding around age four is established across studies in the meta-analysis of Wellman, Cross, and Watson [13].

of that settling, and it is the point at which the developmental account joins the account of the symbolic crisis given in the earlier work.¹¹

4 RELATIONAL ECOLOGIES OF SUBJECT FORMATION

The account has so far proceeded as though subject formation were sealed between an infant and a caregiver. It is not. The dyad within which the classic findings appear is itself situated within, and conditioned by, a wider configuration of family, community, institution, culture, and economy. This section brings that configuration within the frame under the concept of relational ecology, and asks how the several forces that organize a relational ecology, the market, the state, and the cultural order, enter into the formation of subjects. The claim that governs the section is that subject formation is never a purely dyadic process, that it always proceeds within a relational ecology, and that this ecology is organized, contested, and reconfigured by forces that reach into the very structure of the fields within which a subject forms.

Relational Ecology is the historically and culturally organized configuration of persons, institutions, material environments, norms, and practices that makes certain relational fields possible while constraining others. It is the ecological condition under which subject formation unfolds.

4.1 FAMILY AS RELATIONAL ECOLOGY

The smallest relational ecology is the family, and even it is not the sealed origin the dyadic picture takes it to be. The relational fields a family can sustain are conditioned by forces that reach it from without, the hours its members must give to waged labour, the pressures of an economy upon its time and attention, the devices through which other demands enter the home. When a caregiver's response to a child is interrupted, delayed, or thinned, the cause is frequently the reach of a wider ecology into the family's capacity to respond, and not a failure of the caregiver. The relational field of the family is already a conditioned field, and the conditioning is the first appearance, at the smallest scale, of the forces the rest of this section follows to the institutional and economic scale.

4.2 INSTITUTIONAL RELATIONAL ECOLOGIES: A COMPARATIVE NOTE

Beyond the family a society organizes the formation of its subjects through institutions, and the shape it gives them differs markedly from one society to another. What follows is a comparative note, offered as a preliminary sketch and not as a completed comparative sociology. It sets three grammars of relational- field formation beside one another and finds in each a distinct configuration of achievement and cost. No one of the three is offered as a model, and the point of the comparison is to show that the organization of a relational ecology is a matter of determinate arrangements, each with its own generativity and its own price.

It is useful to name, first, a kind of institution the comparison brings into view. An after-school centre, a children's hall, a nursery understood as a place where relation is produced rather than a place where children are kept, may be called a piece of relational infrastructure. The term marks a function that the welfare vocabulary obscures. Such an institution does not merely care for children in the custodial sense; it furnishes the space, the occasions, and the

¹¹The dependence of stabilized meaning upon a settling that no meta-language guarantees is the theme of *Relational Value under the Symbolic Crisis* [2].

company within which relational fields form. Whether a society builds such infrastructure, and how, is one of the deepest facts about the relational ecology within which its subjects are formed.

4.2.1 JAPAN

The Japanese case presents a relational ecology in which the state has built relational infrastructure on a national scale. After-school children's clubs enrolled, as of 2025, on the order of one and a half million children, and national policy pursues their provision through the coordinated construction of places, personnel, and access, with a majority of clubs sited within elementary schools and linked to the wider network of school, locality, and family.¹² Ethnographic study of Japanese early education discloses the orientation of this arrangement. The Japanese preschool has been described as an institution understood to take the place of the traditional neighbourhood or village square in place of the mother's, and as emphasizing for that reason social complexity over dyadic interaction.¹³ Within this arrangement children are supported in the cultivation of feeling, in the development of concepts such as 甘え (amae, the sanctioned reliance upon another) and 思いやり (omoiyari, an anticipatory care for another), through practices in which teachers may hold back from intervention and let children work through their own conflicts, an approach named 見守る (mimamoru, watching over).¹⁴ By the account of this paper such a relational ecology genuinely builds relational fields, and the capacities it cultivates are of the generative kind. In the terms of the foregoing sections, it is a relational ecology that accumulates positive holonomy.

The same ethnography confirms, in the same movement, the other face of the arrangement. The very institutions that build these relational fields are described as key sites of cultural continuity and transmission, the places where children learn to become appropriate members of their culture. Empirical study of the hidden curriculum of Japanese schooling finds that its non-academic practices, the daily routines of greeting, cleaning, and collective activity, are associated with the formation of social preferences, and that they vary and have measurable long-term consequences.¹⁵ Alongside such transmission, studies have documented that group norms can carry a cost for children who diverge from them. This coupling of transmission and its cost is not particular to any one society. It is a general feature of any relational ecology that transmits a culture through shared norms, and the Japanese case is drawn on here because it has been unusually well studied, and not because it is exceptional in this respect.

The Japanese case therefore is not offered as an ideal relational ecology to be recommended, nor as one to be criticized. It is offered as a demonstration that the construction of a relational field and the transmission of a culture through that field are two faces of a single process. The same field that cultivates empathy and relational capacity is also the medium through which a culture, with its particular norms and expectations, is transmitted. A child within it acquires generative relational capacity and takes on the norms of its culture together, and by the same institutions. Read through the historical materialism of the foregoing section, this transmission is a formation of a determinate history and not the expression of a fixed cultural essence, conditioned by the movement of women into waged labour, the fall of the birth rate, and the

¹²The enrolment figures and the policy framework are those published by the Children and Families Agency of Japan [19].

¹³The characterization of the Japanese preschool is drawn from the restudy by Tobin, Hsueh, and Karasawa [15], and from the earlier study by Tobin, Wu, and Davidson [14].

¹⁴The pedagogy of feeling and the cultivation of amae and omoiari are set out in Hayashi, Karasawa, and Tobin [16].

¹⁵The association of the hidden curriculum with the long-term formation of social preferences is established, on Japanese data, in Ito, Kubota, and Ohtake [17].

demands of an economy upon the family's time, and it is therefore, like all such formations, open to change rather than given once for all. The same coupling of relational construction and cultural transmission would be found, on inspection, in any relational ecology, and the point of the case is structural and not evaluative.

4.2.2 SWITZERLAND AND A NORTHERN EUROPEAN CONTRAST

A second grammar organizes the relational ecology through the market. In Switzerland the provision of early childcare is among the most expensive in the world, with parents bearing the greater part of the cost out of pocket and the public share of investment among the lowest in the comparable economies.¹⁶ Under this grammar the relational field of institutional care is priced, and entry to it is filtered by the capacity to pay. Two consequences follow that bear on the formation of subjects. The price places a portion of institutional relational infrastructure beyond the reach of a portion of families, so that entry to the field is distributed by the market. And the very scarcity of affordable institutional care returns a larger share of early relational life to the family, so that the relational fields of the earliest years form more within the household and less within the institution. Whether this returns to the child a richer familial relation or a thinner one is not settled by the arrangement itself, and the arrangement carries, like the others, both an achievement and a cost. What it demonstrates is a grammar in which the market, and not the state, is the organizing force of the relational ecology, and in which the price of the field is the mechanism through which the ecology is distributed.

A third grammar, visible in parts of Northern Europe, organizes the relational ecology as a public entitlement, guaranteeing an institutional place as a matter of right and bearing the greater part of its cost from public funds. Under this grammar the relational field of institutional care is neither built as a national instrument of social complexity nor priced as a market good but provided as a civic guarantee. Its achievement is the wide and equal distribution of institutional relational infrastructure; its cost, or its risk, is a more thorough removal of early relational life from the household into the institution, a disembedding of care whose consequences for the subject are, again, not settled by the arrangement itself.

Set side by side, the three grammars do not arrange themselves into better and worse. Each organizes the relational ecology by a different force, the state, the market, the civic guarantee, and each secures a distinct good at a distinct price. The point of the comparison is that the relational ecology within which subjects form is a determinate arrangement rather than a natural given, historically produced and open to transformation, and that every such arrangement inflects the formation of subjects in its own way, none of them neutrally.

4.3 THE POLITICAL ECONOMY OF RELATIONAL ECOLOGIES

It remains to state the place of capital, and to state it precisely, for the concept of relational ecology alters what that place is. Capital does not form the child directly. It reconfigures the relational ecology within which the child forms. It does this by acting on the forces the foregoing has traced, on the hours of parental labour, on the provision or pricing of institutional care, on the devices and platforms through which other demands enter the relational fields of the family. The reconfiguration is not uniform in its effect. It sometimes thins relational fields and sometimes furnishes them, sometimes withdraws occasions of relation and sometimes builds them, since the same fiscal and economic forces that price care out of reach in one arrangement build relational infrastructure in another. To say that capital reconfigures the relational ecology is not, therefore, to say that capital destroys relation. It is to pose a question, and the question

¹⁶On the comparative cost of Swiss childcare and the OECD comparisons, see the OECD family database [18].

is what kind of relational field the reconfiguration produces.

Here the criterion the series has developed does its work, and prevents the analysis from settling into a value-neutral description of relational configurations. The measure of a reconfiguration is the holonomy of the fields it produces, rather than the quantity of relation it produces. A relational field may be multiplied in quantity and yet accumulate no positive holonomy, may turn a loop that returns the child to where it began with no remainder carried back, or a loop that carries a remainder away. The quantity of relation and the sign of its holonomy are distinct, and an increase in the amount of relation is no good in itself. The Japanese case has already shown a relational ecology dense in relation and at the same time transmitting a culture through it; the point holds in the other direction, that a reconfiguration may add relation of a kind that generates no endogenous remainder and may even extract one.

Capital reconfigures the relational ecology within which the child forms, rather than forming the child directly. The measure of a reconfiguration is the holonomy of the fields it produces, rather than the quantity of relation it produces. A just reconfiguration accumulates positive holonomy, returning to the child a remainder generated between the parties; an extractive reconfiguration produces fields of zero holonomy, pure repetition returning no remainder, or of negative holonomy, a net extraction that consumes the relation it appears to furnish.

The scene of social referencing, held in reserve in the foregoing section, is where the extractive reconfiguration reaches deepest. The settling of the child's meaning requires, from the first, a passage through a position at the far end of a circuit, the position to which the child looks back for the sense of its world. That position can be occupied. When the face the child looks back to is displaced by a screen, a device that responds, a companion that answers to the child's name, the position from which the child's world is given its sense has been occupied by something whose responses are organized elsewhere. A human-and-device loop is substituted for the triadic loop of child, object, and caregiver, and the substituted loop, by the measure of the foregoing, is a loop of zero or negative holonomy, a repetition that carries back no common world, or an extraction that draws the child's relational orientation off into a circuit whose remainder is gathered as engagement and as data by an external system. In the terms of the series, it is an open system disguised as a closed loop, drawing off the endogenous curvature of the child's relational field and presenting the draught, to the outside, as growth.

At this point the psychoanalytic register returns. The earliest anchoring of the object that orders the child's desire is, in such a reconfiguration, laid upon a commodified image, so that the structure of the child's wanting is, from its first formation, tuned toward a circuit organized for extraction. This is not the instilling of a preference in a subject already formed. It is the laying of a channel in the ground on which the subject forms, so that the self the child grows into arrives already disposed as a smoother point of extraction. It reaches deeper than any address to an existing subject's desire, for it works upon the relational matrix within which a desiring subject is generated at all.

This discloses the frontier that gives the section its stakes. The series has traced an advancing frontier of extraction. Value was extracted first from the sign; when the sign could no longer well sustain the production of value, extraction turned to the relational domain and drew value from relation; and it is now disclosed that the frontier has advanced once more, into the domain of subject formation itself, where extraction acts upon the very process by which a subject is generated. The three steps compose a movement, and the movement is dialectical, each advance a turn of extraction, upon meeting the internal limit of the domain it had been working, toward a domain deeper and less defended. The advance into subject formation is the frontier's present

edge, and it is the gravest, for it reaches the ground on which a subject is generated. It may be named, to distinguish it from the extraction of value from an already constituted subject's attention, an invasion of generativity. It does not tax a finished product. It lays its channel in the process of production itself, and the channel does not close when the subject is formed. The subject carries it forward, into the relations it will itself construct, so that what is damaged is the formation of this subject together with its own subsequent power to generate.

The frontier of extraction has advanced from the sign, through relation, to subject formation itself. Where the extraction of value from a constituted subject's attention taxes a finished product, the invasion of generativity lays its channel in the process by which a subject is produced, reconfiguring the relational fields within which a subject forms so that the subject arrives already disposed toward a circuit organized for extraction. Its reach does not end with the formation. It lays a defect in the subject's own generative apparatus, so that the subject, once formed, carries the disposition forward into the relations it will itself construct, and its own later capacity to generate relations of positive holonomy is diminished at the root. This is the gravest reach of the frontier, for it acts upon how a subject comes to be, and upon how that subject will in turn generate, and not only upon what a subject has.

The analysis of a relational ecology is therefore to be conducted through three questions and a fourth. It asks who organizes the relation, and why, and who is benefited by the relation so organized. These three questions distribute the analysis across the market, the state, and the cultural order, and they are the questions a political economy of childhood must in any case pose. The framework of this paper adds a fourth, which the criterion of holonomy makes it possible to pose. It asks whether the relational field, as reconfigured, preserves the remainder that a good cycle carries back to the child, the irreducible and singular self that is not settled in advance by any circuit. Where the first three questions locate the forces at work, the fourth judges what they produce, and it is the fourth that carries the ethical weight of the account.

5 TOWARDS A GENERATIVE RELATIONAL DEVELOPMENTAL PSYCHOLOGY

The account does not close with a summary, and it does not close with a doctrine of rearing. It closes by setting out the conditions under which a generative relational developmental psychology might proceed, and by declining, in the manner the account requires of itself, to deliver that inquiry's end.

5.1 THE QUESTIONS A GENERATIVE DEVELOPMENTAL PSYCHOLOGY WOULD TAKE UP

If the subject is generated within relation, and if the classic findings of early development are manifestations of a single lineage of generative relational capacity, then the questions a developmental psychology takes as central are displaced. It would ask no longer only which cognitive abilities a child acquires and when, but how the field's power to generate a relation-generating subject deepens, and by what marks its deepening may be discerned. It would ask what stages and what variations the formation of shared relational fields exhibits, without construing the variations as deficits against a single norm. It would ask how a relational ecology may be designed so as to build relational fields while leaving open the norms it transmits through them, a question this paper poses and deliberately leaves open, since to answer it with a prescription would be to commit the very error the account has diagnosed. It would ask whether an artificial

system can support the generation of relation rather than only simulate a response, whether a device that answers can occupy the position at the far end of the child's circuit without turning the loop into one of extraction. And it would ask how the practices of rearing and of education might sustain an ecology in which relation continues to generate. These are not the questions of a psychology of the individual's abilities. They are the questions of a psychology of relational capacity, and they follow from the displacement of the unit of analysis this paper has carried out.

5.2 THE EDUCATOR'S BEWILDERMENT AND THE ETHIC OF NON-POSSESSION

There is a bewilderment that recurs in the reflection of educators, and that the present account is able to diagnose. The educator is charged to bring the child into the world, to hand on something of what it is to be a human being, and finds, at the point of trying to say what that something is, that it cannot be specified in a pure form.¹⁷ What is to be handed on seems, on inspection, never to be a pure content, since knowledge and the formation of a subject can be separated from neither the history nor the culture nor the politics within which they stand. The educator reaches for a pure thing to transmit and finds no such thing, and from this there arises a bewilderment about the role itself, a sense of an office charged with a task whose object will not present itself.

The account of this paper reads that bewilderment as the negative image of a truth about subjects, and not as a failure of the educator. The educator finds no pure content to transmit because there is none to be found, because a subject is generated within a relational ecology, together with the whole of its history, its culture, and its politics, and is not a kernel that can be handed from one to another. The bewilderment is the truth that the subject precedes no relation, met from the side of one who had been charged to transmit the subject as though it were a possession. What the educator had sought to give cannot be given, because it is not the kind of thing that is given. It is the kind of thing that is generated, and generated only in the tending of a field.

Read historically, the bewilderment has a source and is not a perennial condition of teaching. The pure content the educator reaches for was underwritten, in an earlier arrangement, by an authority and a symbolic order that placed it beyond question, and it is the historical dissolution of that authority, the symbolic crisis the series has traced, that leaves the educator reaching for a content that no longer presents itself as given. The bewilderment is a historically produced predicament, and not the timeless difficulty of the office.

To this predicament the account returns the ethic the series has developed, the ethic of a non-possessive generation. The office of the educator, and of the caregiver, is to tend the positive curvature of a relational field and to take part in the generation of a subject without possessing its outcome, and it is neither the filling of a kernel nor the transmission of a pure thing. The five principles under which a generative position realizes its justice have been set out elsewhere in this series, that such a position preserve the continued becoming of the subject, that it reproduce the relation jointly and not unilaterally, that it never proceed upon the exhaustion of a party, that it keep open the renegotiation of its own terms, and that it never dissolve a subject into a function.¹⁸ What those principles require can be gathered in a single formulation the series has drawn from the Daoist tradition, to give rise without possessing, to act without holding as one's

¹⁷The theme recurs across the philosophy of education; it is stated, in the register of the crisis of authority, in Arendt's essay on the crisis in education [20], and, in the register of the unmasterable arrival of the subject, in Biesta's account of education as a risk that cannot be reduced to the production of a predictable outcome [21].

¹⁸The five ordered principles of a just generative position are set out in *The Mediation of Lack* [6] and in *A Theory of Relational Reproduction* [4].

own, to let grow without ruling over.¹⁹ The bewilderment of the educator is, on this reading, the very opening in which a non-ruling generation becomes possible, rather than a lack to be repaired by a firmer doctrine of what to transmit. The emptiness the educator meets is the space of a not-ruling, and the uncertainty the educator bears is the openness the child's arrival requires, the openness of a remainder that no circuit and no educator may settle in advance.

5.3 THE MANNER OF THE CLOSE

Two tasks have composed this paper. The first reread early development, displacing the cognitive ability with the relational capacity, and reconstructing joint attention, gaze following, social referencing, and theory of mind as manifestations of a single lineage of generative relational capacity, along the two axes of the field's curvature and of recursive depth. The second opened the account onto its ecology, introducing relational ecology as the historically produced configuration within which subject formation proceeds, setting three grammars of its institutional organization beside one another, and restating the political economy of childhood so that capital appears as a reconfigurer of the relational ecology rather than as a direct former of the child, whose gravest reach, the invasion of generativity, lays its channel in the process by which a subject is generated.

What the account leaves are the questions it has made it possible to ask, and it leaves them open by design. It has declined to name a master objective for the rearing of children, because to name one would be to treat the formation of a subject as the optimization of a target, and the subject is constituted by the very process such a target would presume to fix in advance. It has declined to recommend one of the three grammars of relational ecology as a model, because each secures its good at its own price and none escapes the condition that to organize a relational field is already to inflect it. And it has declined to settle the line between a generative reconfiguration and an extractive one by a rule, because that line can be discerned only within a concrete relational ecology and judged again and again by whether the remainder a good cycle carries back to the child is preserved or drawn off. And it has declined to advance its own reading as the single true account of development, holding it instead as one relationally generated construal among those the findings admit, open to dialogue with the theories it reads and to sharing their structure where their structures meet, since a reading that claimed to be the one account beneath all others would forget that concepts too are relational beings and would arrest the very inquiry it means to open. These refusals are not evasions. They are the form the account's own ethic requires of it, the setting of the conditions under which an inquiry may continue and the withholding of the settlement that would arrest the generation the account has undertaken to describe.

A last image gathers the whole. The series has taken the rose for its figure, and has said of it that one is to attend to how it was generated rather than to its withering, that generativity sustains itself, that the office of care is to tend the root and to remember how the rose came to be there. A subject is such a generation. It is not a kernel to be filled, nor a product to be optimized, nor a thing to be possessed by those who tend it. It is a rose that comes to be in the tending of a field, and the whole of what has been said here is said in the service of attending to how a subject comes to be, rather than to what it shall be made.

¹⁹The formulation renders the 玄德 (xuande) of the Daoist canon, 生而不有, 为而不恃, 长而不宰, drawn on throughout the series as the description of a non-possessive generation.

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