

# Pretence as Individual and Collective Intentionality

HANNES RAKOCZY

---

**Abstract:** Focusing on early child pretend play from the perspective of developmental psychology, this article puts forward and presents evidence for two claims. First, such play constitutes an area of remarkable individual intentionality of second-order intentionality (or ‘theory of mind’): in pretence with others, young children grasp the basic intentional structure of pretending as a non-serious fictional form of action. Second, early social pretend play embodies shared or collective we-intentionality. Pretending with others is one of the ontogenetically primary instances of truly cooperative actions. And it is a, perhaps the, primordial form of cooperative action with rudimentary rule-governed, institutional structure: in joint pretence games, children are aware that objects collectively get assigned fictional status, ‘count as’ something, and that this creates a normative space of warranted moves in the game. Developmentally, pretend play might even be a cradle for institutional phenomena more generally.

Pretending is the ontogenetic entryway into fictional life. From the second year of life, humans engage in pretence games, beginning with simple fictional tea parties, moving on to doll-houses and finally to adult theatre stages. Early pretending has been studied in recent developmental psychology mainly from the point of view of ‘theory of mind’ development: what abilities of intentional interpretation are involved in understanding and performing pretend play? Speaking to this issue, and in line with much other work, in the present paper I will argue and present evidence that pretence comprehension from the second year reveals remarkable abilities of second-order intentionality. Beyond this, however, I will emphasize an aspect of pretence that has largely been neglected: early pretend play is not only a form of individual action that children engage in and understand, but an essentially social, cooperative form of action that embodies impressive abilities of collective ‘we’ intentionality.

## 1. Pretence and Second-Order Individual Intentionality

Young children’s pretend play has attracted much interest from the perspective of ‘theory of mind’ research, the main question being what early pretence reveals

---

I would like to thank Michael Tomasello and Emily Wyman for discussions about pretence and helpful comments on an earlier draft of this paper.

This work was supported by a ‘Dilthey Fellowship’ of the Volkswagen Foundation and the Fritz Thyssen Foundation.

**Address for correspondence:** Max-Planck-Institute for Evolutionary Anthropology, Department of Developmental and Comparative Psychology, Deutscher Platz 6, D- 04103 Leipzig, Germany.

**Email:** rakoczy@eva.mpg.de

about children's folk psychology (or theory of mind).<sup>1</sup> The ongoing debate about this question has mainly been shaped by two competing theories—one quite lean, the other quite rich—and an implicit assumption that the two exhaust the space of possibilities. I am going to challenge the latter assumption and argue for a third way: while the lean theory is too lean and cannot explain young children's pretence production and comprehension, this does not in itself warrant acceptance of the rich theory.

### 1.1 A Rich Account

The theory of mind approach to pretence development was initiated by Alan Leslie's (1987) rich meta-representational account of early child pretending. The starting point for this theory are four observations: First, in order not to get confused about fact and fiction, it is necessary that even young children—in pretending and seeing others pretend—somehow cognitively keep apart the propositions describing the pretence content ('this is an apple') and propositions about the real world ('this is a ball'). Second, pretence production and pretence comprehension seem to emerge together in ontogeny. From the time they pretend themselves, from around 18–24 months, children understand others' pretence acts and can respond to them inferentially appropriately in joint pretence scenarios: when someone else pretends to pour from a pot into a cup, for example, children pretend to drink from the 'full' cup (Harris and Kavanaugh, 1993; Leslie, 1994). This yoked emergence of production and comprehension suggests, according to Leslie, a common cognitive mechanism at play in pretending oneself and understanding others pretend. Third, there seem to be some structural isomorphisms between forms of pretend play on the one hand and forms of intentionality in reports about mental states on the other. For example, in mental state reports substitution of co-referential terms fails, and in object substitution pretence (pretending that an X is a Y) substitution of factual and fictional identities of an object in each respective content fails in similar ways. Finally, autism is characterized by a common deficit in theory of mind, in particular false belief ascription, and spontaneous pretend play.

The main claim of Leslie's account (1987, 1988, 1994, 2002; Friedman and Leslie, 2006; German and Leslie, 2001), devised to explain these observations, is that even very young children already possess basically our adult concept of pretending and understand pretence in a meta-representational way: Both when they pretend themselves that a ball is an apple, for example, and when they understand that someone else pretends so, they apply a meta-representation of the form 'someone pretends of the ball that [it is an apple]'. This form of representation makes use of the primitive concept 'pretend' (that even young children share with

---

<sup>1</sup> A terminological note: For the purposes of the present paper, I will use 'folk psychology', 'theory of mind' and 'second-order intentionality' interchangeably, and quite loosely as referring to any kind of intentional interpretation.

adults), and is processed in a specific modular architecture dedicated to representing mental states in the general form 'person-attitude [proposition]', the so-called 'Theory of Mind Mechanism' (ToMM).

Children are not confused about fact and fiction, and can follow the unfolding of fictional scenarios because the propositions describing the fictional world are quarantined from beliefs about reality in the meta-representational format. Because the same meta-representational format is involved in pretending ('I pretend ...') and in understanding others' pretence ('She pretends ...'), production and comprehension emerge together. Autism, finally, is characterized by a general impairment in the theory of mind module, which explains the common deficit in spontaneous pretence and mental state ascription.

### **1.2 A Lean Account**

This theory of Leslie's soon got challenged by an opposing lean approach, the so-called 'behaving-as-if' account (e.g. Harris, 1994; Harris, Lillard and Perner, 1994; Jarrold, Carruthers, Smith and Boucher, 1994; Lillard, 1994; Nichols and Stich, 2000, 2003; Perner, Baker and Hutton, 1994). Its basic contention is that no such heavy machinery as postulated by Leslie's approach is needed to explain young children's pretence production and comprehension. Regarding children's pretence production, pretending is just seen as behaving as if some counterfactual state of affairs was the case (with no need to self-ascribe any pretend attitudes). Similarly, regarding comprehension, young children lack an adult concept of pretending, but rather understand pretence in a shallow way as a certain type of reality-inadequate behaviour. The young child before she has acquired a more mature theory of mind around age 4 - 5, according to this account, only has a concept of pretending as behaving-as-if: in the case of propositional pretence, the child understands pretending-that-p as behaving-as-if-p, defined as 'behaving in a way that would be appropriate if p (the counterfactual situation) were the case' (Nichols and Stich, 2000, p. 139); similarly, non-propositional pretending-to-X is understood by the child as behaving-as-if-Xing without really Xing. With such a behaviour-based understanding of pretence, children can respond adequately and flexibly to other people's pretence acts. The child sees another person 'behave as if p were the case' (say, as if tea was poured from a container into a cup), whereupon p is made use of in the child's own imagination<sup>2</sup>, and she can then join the play partner and go on in her own next pretence move according to this imaginary situation (i.e. pretend to drink from the 'full' cup).

---

<sup>2</sup> This is most clearly spelled out in Nichols and Stich's (2000, 2003) boxological variant: p gets stored in the child's 'possible world box', quarantined from the 'belief box'. In the possible world box, though, all usual inferential relations (e.g. from 'there is pouring happening' to 'the cup is therefore full') are valid unless additional premises to the contrary are stipulated (e.g. 'this is taking place in a fictional world where liquids evaporate at any temperature in less than 1 second'). This inferential structure of the 'possible world box' explains the inferential integration and systematicity of even early child pretending.

As the behaving-as-if concepts the young child is supposed to operate with are purely defined in behavioural terms, and thus have an extension much bigger than the class of pretence acts (applying also, for example, to unsuccessful attempts, acts based on mistaken beliefs etc.), one prediction that follows is that young children should commit overextension mistakes: they should apply their concept of pretence to as-if-behaviours that fail to fulfil essential criteria for pretending. In particular, to as-if-behaviours without the requisite intentional structure of pretending (behaving-as-if *p* were the case without the right kind of intention), and without the requisite cognitive structure (behaving-as-if *p* were the case without the right kind of cognitive attitude towards *p*).

Prima facie evidence for these predictions comes from a series of verbal interview studies by Lillard (1993, 1998). Children were told stories about a character from another planet called Moe with the following structure: First, Moe was performing a certain as-if-behaviour, e.g. hopping like a rabbit. But, second, there was a premise stating that Moe was failing to fulfil an essential background requirement for rabbit-pretence. In one set of studies, Moe lacked some cognitive prerequisite—he did not know rabbits because they don't exist on his planet (Lillard, 1993). In another set of studies, Moe's behaviour lacked the requisite intentional structure—he did not want to hop like a rabbit at all (Lillard, 1998). The crucial test question was then whether Moe was pretending to be a rabbit or not. In line with the prediction, children up to the age of 4 to 5 years incorrectly answered this question affirmatively.

However, these findings are rather difficult to interpret. First of all, the scenarios are rather confusing—what is one to make of someone hopping like a rabbit without wanting to do so? Relatedly, and in a more formal vein, answering these questions correctly rests on an ability to block an extensional reading of the premises: Moe is doing something, and by default probably he is doing it intentionally under some description. This something amounts to hopping like a rabbit. But he does not do it intentionally under *that* description. As we know from much other developmental work that children have difficulty blocking extensional readings of premises until the age of 4 to 5 (e.g. Hulme, Mitchell and Wood, 2003; Russell, 1987), children might fail these kind of pretence reasoning tasks due to such general task demands having to do with intentionality.

### 1.3 A Third Way

In our research, therefore, we set out to test young children's understanding of pretending with a pragmatically less confusing and a more action-based methodology. The guiding hypothesis was the following: while in the light of much research on theory of mind development it is plausible that young children before around 4 do not yet grasp all of the cognitive underpinnings of pretending (i.e. that it requires certain forms of beliefs, knowledge etc.), it is highly implausible in the light of young children's quite sophisticated action understanding (e.g. Tomasello and Carpenter, 2005) that they should not grasp the basic intentional structure of pretending.

We tested the behaving-as-if account with an action-based methodology inspired by infant imitation work. The logic of the studies (Rakoczy, Tomasello and Striano, 2004, 2006; Rakoczy and Tomasello, 2006) was straightforward: children's imitative and inferential responses to two kinds of as-if-behaviours—pretending to perform an action and trying to perform the very same action—were compared. Both cases constitute as-if-behaviours according to the definition of Nichols and Stich; and accordingly, if the child is a behaving-as-if theorist, she should not systematically distinguish the two cases. In contrast, if the child understands the basic intentional structure of the two kinds of acts, she should respond differentially and appropriately to the two kinds of models: after trying models, she should go on to perform the action properly (or at least also try to); after pretence models, in contrast, she should only perform the pretend act herself, and appropriately related pretence acts.

The children were shown pairs of such superficially analogous incomplete as-if-behaviours with objects, for example pretending to pour from a container into a cup, and unsuccessfully trying to do the same act. In both cases the actor would make pouring movements with a novel container over a cup, but without actual pouring happening. In the one case, he would mark it with signs of playfulness and sound effects as pretending to pour, in the other case he would mark it with signs of surprise and frustration as trying to really pour. Importantly, the container did really contain water and thus could be really used to pour. In the first studies (Rakoczy *et al.*, 2004, Studies 1 and 2) the situation was set up as an imitation game. After the actor's model action children were then given the object and could act with it themselves. Three-year-olds (and to some lesser degree 2-year-olds) very clearly showed that they understood pretending and trying as such: after trying models, they really performed the action themselves or tried to really perform it, often commenting on their failure (e.g. 'I cannot do it either'), but after pretence models they only pretended themselves and did not care about the real effects of their acts (e.g. whether there was water coming out of the container).

In another design (Rakoczy *et al.*, 2004, Study 3; Rakoczy and Tomasello, 2006), children were presented with some of the same model pairs, but now not in a strict imitation game only. Rather, inspired by previous studies by Harris and Kavanaugh (1993) and Leslie (1994), the pragmatics of the situation was set up to encourage more productive inferential responses as well (among other things by supplying them with additional props some of which could be used for instrumental purposes (tools), and some of which for fictional purposes (dolls etc.)). When 2- and 3-year-olds now saw an actor try to pour they themselves then really did the action or tried to, but with different means. For example, they made use of a tool to open the container first. When the actor had pretended to pour, in contrast, children themselves pretended to pour and then went on to pretend to drink and give some dolls a drink (older 1-year-olds showed a pattern of responses in the same direction, but not as clear as the 2- and 3-year-olds). That is, children revealed a rich understanding of the intentional structures of pretending and trying as

different forms of behaving-as-if: in trying to pour the actor wants to perform the action properly, intends to make the proposition 'there is water coming out of this container' true by bringing it about; in pretending to pour, in contrast, the actor only acts intentionally and non-seriously as if pouring and as if 'there is water coming out of this container' was true. Accordingly, these two kinds of behaviours license very different inferences that children grasped: in the trying case, that other means should be used, in the pretence case, that in imitating and extending the pretence the stipulated pretence proposition should be respected.

Interestingly, children revealed such an understanding of the different intentional structures of the two kinds of acts in their own systematic imitative and inferential responses long before they could do so explicitly in words. In another study (Rakoczy *et al.*, 2006, Study 1), the very same models were shown to children and they were asked whether the person had pretended or tried to perform an action (e.g. pour). Children up to the age of 6 years found this question rather difficult. Extended experience with specific forms of meta-discourse about pretence seems crucial for developing such later explicit understanding (Rakoczy *et al.*, 2006, Study 2).

All in all, young children from the time they become proficient pretenders (around 2 years) understand pretending as a specific form of intentional, non-serious activity, different from other forms of as-if-behaviours. The behaving-as-if account in its straightforward form (young children understand pretending-that-p as 'behaviour that would appropriate if p were the case') cannot account for these findings. The young child is not confined to a behaviourism regarding pretence, but grasps the basic intentional structure of pretending.

Does this then mean that the rich meta-representational account is correct? A lot of debate about pretence understanding and theory of mind has been conducted on the assumption that the behaving-as-if theory and the meta-representational theory exhaust the logical space of possibilities (and that therefore rejecting the first means accepting the latter).

But clearly arguing that the young child grasps more of the intentionality in pretence than the behaving-as-if theory has it does not commit one to the rather heavy ontological baggage of Leslie's account. This account posits a modular architecture in charge of computing meta-representations, and an atomistic primitive concept 'pretend' that gets used in forming such meta-representations. This primitive concept 'pretend' is basically our adult concept of pretending and is present in the language of thought right from the start.

First of all, this account rests on a strong assumption of modularity that, I think, is far from warranted by the empirical findings (in particular regarding autism where it is not clear at all whether autistic children have a real competence problem with pretence, or whether they are capable of pretence comprehension and production, but only when suitable scaffolded and motivated; see Jarrold, 2003; Jarrold, Boucher and Smith, 1993). Secondly, this account rests on quite specific semantic background assumptions of concept atomism and nativism: the concepts made use of by the theory of mind module, among them the concept 'pretend',

are to be understood along the lines of indexical concepts (or natural kind concepts on an externalist reading): primitive, atomistic, largely devoid of descriptive content and constitutive inferential relations with other concepts. These concepts reliably pick out referents in the world (i.e. acts of pretending) by themselves, without necessary inferential integration with other concepts. With subsequent development, it is true, the child does learn a lot about pretence, and thus learns to draw many inferences using the concept 'pretend', but these are in no way constitutive of possessing the concept—which is and remains primitive after all.

In contrast to this, some form of (even moderate) conceptual holism allows for describing development as more gradual conceptual change. Rather than having to say either 'The child has just a behaviouristic concept of pretence' or 'The child has the full adult concept "pretend"', one can describe the child as coming to master more and more inferential relations constitutive of our concept of pretence, and thus moving from some to a full adult understanding of pretending. In more concrete terms: the young child from around 2 years understands the basic intentional structure of pretending; she understands pretending as a specific form of non-serious intentional activity according to counterfactual propositions (in contrast to other forms of—serious—intentional activities); and she masters practical inferences relating pretence acts and other pretence acts which are warranted by the former. The child at this age, however, does not yet possess the adult concept of pretence because she is not yet capable of mastering some constitutive inferential relations of pretence with cognitive attitudes. For example, without a full-fledged concept of belief before the age of 4, the child does not understand that pretence requires certain background assumptions and knowledge (as tapped, for example, in one version of the Moe task, Lillard, 1993). Nor does she understand that pretend play differs from pretending in order to deceive someone in that the latter is defined by an intention to make the other truly believe what's only pretended (interestingly, the term 'make-believe' sometimes used for pretend play would be much more appropriate for this kind of deceptive pretending).

This gradual conceptual change parallels the development in other areas of social cognition. For example, 1-year-olds have some grasp of intentional actions, as indicated in their differential and appropriate responses to others' intentional and unintentional behaviours, in particular in their systematic and rational imitation (e.g. Gergely *et al.*, 2002; Tomasello and Carpenter, 2005). That is, children at this age have a basic concept of intentions as attitudes with content that fixes conditions of success (they distinguish successful acts from failed attempts and accidents) and which give reasons for behaviour. However, there is much more to our adult concept of intention than this, there are many more essential inferential relations between the concept of intention and other concepts. Intentions are specifically contrasted with desires, for example. Intentions involve a commitment to action lacking in the case of desires (which is why mutually incompatible desires, but not intentions can be held knowingly; Bratman, 1987); and in contrast to desires they are causally self-referential (they count as fulfilled only if they are involved in bringing about the intended state of affairs in the right kind of way: Harman, 1976;

Searle, 1983). These latter aspects of intentions children do not seem to grasp before the age of around 4 to 5 years (Astington, 2001; Moses, 2001). What we see here, thus, is a similar gradual development from a rudimentary concept of intention towards our full-fledged adult one as we see in the case of understanding pretence.

## **2. Pretence and Collective 'We' Intentionality**

Early child pretence, though, is not just an instance of remarkable mutual intentional interpretation on an individual level. It is more social than that. First of all, pretend play seems to be essentially social in origin: Early real-life pretending is highly scaffolded and initiated by, and mostly done with the parents (Haight and Miller, 1992; Lillard and Witherington, 2004; Slade, 1987). And experimental evidence suggests that pretence acts are initially acquired through imitation in similar ways as other forms of action are (Nielsen and Christie, 2008; Rakoczy, Tomasello and Striano, 2005; for pioneering studies in the Vygotskian Soviet tradition, see El'Konin, 1966).

### **2.1 Pretence and Cooperation**

But beyond being social in origin, I would like to argue, early pretend play is in essence a form of shared or collective 'we' intentionality. With collective intentionality we deal when two or more subjects share an intentional 'we' attitude that is not straightforwardly reducible to individual intentional attitudes.<sup>3</sup> When you and I tango together, we form and pursue the joint We-intention 'We tango together' which is not reducible to the sum of my individual intention 'I tango' plus your analogous one (not even when supplemented with our mutually knowing about these intentions). And the irreducibility of collective intentionality becomes even clearer, of course, in the case of more wide-ranging social practices. 'We play/one plays chess like this' is clearly no sum of 'I play it like this', 'You play it like this' and 'She plays it like this'.

Specific normative dimensions go along with collective intentionality. In simple cooperative actions, the partners bind themselves to acting jointly and are thus committed to the pursuit of the joint goal. And in the case of more wide-ranging social affairs, more obviously the way 'one does it' fixes a framework of right and wrong moves.

From the empirical point of view of comparative psychology, the propensity for collective we-intentionality has been argued to be a crucial uniquely human cognitive achievement that lays the foundation for the development of culture

---

<sup>3</sup> For the foundational works in recent analytical philosophy, see Bratman, 1992; Gilbert, 1990; Searle, 1990, 1995, 2005, Tuomela, 1995; Tuomela and Miller, 1988. For an overview, see Tollefsen, 2004.

(Rakoczy and Tomasello, 2007; Tomasello and Rakoczy, 2003; Tomasello *et al.*, 2005). Developmentally, the ability to enter into collective we-intentionality appears to emerge in human ontogeny in the course of the second year, in particular in the domain of collective actions. Children from one and a half begin to engage with adults in collaborative (non-pretend) games with complementary roles and turn-taking structure, and in collaborative instrumental problem-solving with clearly differentiated roles (Brownell and Carriger, 1990; Eckerman and Didow, 1996; Warneken, Chen and Tomasello, 2006).

Joint pretending with adults is another such form of early cooperation emerging around this time (from around 18 to 24 months): children do not only pretend socially in the sense that they imitate others, but they engage in simple shared pretence scenarios over time, with appropriate complementary responses to others' contributions (see above). For example, when a play partner pretends to pour tea in two empty cups, and then to drink all tea from one cup, children go on to pretend to drink from the 'still full' cup. Or when the partner pretends to spill some tea on the table, children join in by pretending to wipe the table at the appropriate spot (see Harris and Kavanaugh, 1993; Leslie, 1994; Walker-Andrews and Harris, 1993; Walker-Andrews and Kahana-Kalman, 1999). That these inferentially appropriate responses are based on an interpretation of the intentional structure of the partner's act has been documented by the 'pretending-trying' studies already mentioned.

But in fact, interpretation of the individual intentional structure of the other person's pretence act, though necessary, is hardly sufficient here. The child's interpretation of the other 'She has pretended to pour tea into this cup' does not license any own acts per se. Only against the background of entering a joint fictional scenario—of the form 'We pretend now together (that this cup is full/to have a tea party etc.)'—does the next move of pretending to drink from the cup make sense.

Interestingly, joint pretending can be seen not just as one among several forms of collaborative actions emerging in the second year—but in a sense as the most unambiguous and convincing one. The reason is the following: In the case of non/pre-verbal creatures who don't report on what they're doing, there is a fundamental interpretation problem in distinguishing cooperation proper from mere behaviour coordination: Is something a truly joint act, or is it just a sum of individual acts that involve some shallow coordination with each other? Are they taking a walk together, or do they just happen to walk beside each other at the same pace because they are both heading towards the same goal independently (see Gilbert, 1990)? In comparative psychology, for example, a much debated question has been whether ape social hunting is an instance of cooperation proper (Boesch and Boesch, 1989), or merely complex social coordination in which each participant plans and acts individually, with the impression of collectivity emerging from the contingencies between the individuals' behaviours due to external constraints (one individual starts hunting at a certain place, then the next individual starts hunting, but cannot take the same place, then the third individual has to take even another place etc.; Tomasello and Call, 1997; Tomasello *et al.*, 2005).

Young children from their second year have been found to coordinate with adult partners in instrumental problem-solving. For example, if they want to retrieve a toy from a box which can only be opened when another participant first pushes a lever (e.g. in studies by Brownell and Carriger, 1990, 1993), young children communicate with the other, requesting her to perform her part, wait until this part has been performed, and then perform theirs. Does this thus constitute cooperation proper? Quite likely, but we cannot in principle rule out simpler descriptions in terms of individual actions that have as brute enabling conditions the fulfilment of another person's act. The relation between the actions by means of which they get coordinated is purely causal and external: as a matter of brute contingency, one participant's act builds on the other participant's acts. An analogous case would be real pouring and drinking: I as a little child cannot drink before you as the adult have poured from the big bottle (which I cannot handle). It is not necessarily that your action provides a reason for me to act. Rather, the fact that your behaviour is—as a matter of brute empirical contingency—necessary for me to pursue my individual goals provides a reason to coordinate with your behaviour in appropriate ways.

In the case of social pretend play, however, there is no such brute contingency. If I wanted to pretend on my own, I could do with the cup whatever I pleased. Your pretence acts don't have natural consequences for me in the way your real pouring acts have consequences for my ability to drink. Respect for the implications of your pretence stipulations is not necessitated naturally, but only as part of my sharing into a joint we-intention to pretend together with you (such that 'in *our pretence* the cup is "full" now ...'). That is, in the case of social pretend play we do not face the same problems of interpretation as in the case of coordinated instrumental activities: children's appropriate responses to others' acts cannot be explained more parsimoniously as sensitivity to brute contingencies only.

## 2.2 Pretence and Institutional Reality

Shared pretending is also not just a form of simple collective intentionality, but more specifically a form of collective intentionality with the basic structure of rule-governed institutional activities. Following Searle (1995, 2005), we can say that collective intentionality in general defines the class of *social facts*. An important sub-class of collective intentional phenomena, though, involves the conventional use of objects and the collective assignment of so-called status functions to these objects (Searle, 1995). Status functions are assigned merely on the basis of and constituted by a collective practice: An object has a certain status function only in virtue of the collective intentional treatment of it as having this very function. A piece of nickel, for example, is money and a piece of wood is a queen in chess, but one could have decided to pay with wood and play with nickel. 'X counts as a Y in context C' is the logical form of status function creation. When social practices involve regular status function assignment on a generic level ('all the Xs count as Ys in this kind of activity'), this takes the form of constitutive rules, i.e. rules that

do not only regulate an already existing activity (such as eating), but that are constitutive of the very activity itself (Rawls, 1955; Searle, 1969, 1995). Games are among the paradigms: chess, for example, is constituted by its rules that confer status on the different figures ('king', 'queen' etc.) and their potential acts ('attacking', 'checking' etc.). This sub-class of collective intentional phenomena with status function assignment marks the realm of *institutional facts* (such as 'This is a 5€ bill', 'That is a castling' or 'They are married').

Specific normative dimensions go along with practices assigning status function: that an object X counts as a Y in a certain context, confers normative powers on the object, licenses certain acts and generally carries normative implications such that it ought to be treated as a Y within the context. A piece of wood is a queen in the context of chess and that means it has the power to move in certain ways, ought to be used accordingly, and ought not to be used as firewood in this context, for example.

Early pretending—it can now be argued more precisely—is an instance, perhaps the ontogenetically primary instance, of such social activities with (proto-) institutional structure (Rakoczy, 2006, 2007; Rakoczy and Tomasello, 2007). When a child and an adult pretend together that a wooden block is an apple, for example, 'This wooden block counts as an "apple" in the context of our pretence game' is the corresponding status function assignment (Walton, 1990). That children track and respect such fictional status assignments of play partners (e.g. 'This counts as "pouring" now'), enter into shared pretence based on these stipulations ('This cup counts as "full" now in our pretence') and perform inferentially appropriate acts (i.e. pretend to drink), has been shown in the studies reported above (e.g. Harris and Kavanaugh, 1993; Rakoczy *et al.*, 2004).

Crucially, status function assignments hold only relative to contexts: The very same X can count as a Y in a certain context  $C_1$ , and at the same time as a Z in another context  $C_2$ . The very same piece of cardboard can count as a trump in one card game, but as a lousy card in another game, or the very same actor can count as hero in one play and villain in another. Young children, we found in another set of recent studies, are sensitive to such context-specificity of fictional status assignments: When one and the same object was used in different pretence contexts with different people (e.g. child pretends with person A that the object is an apple, then pretends with person B that the object is a cup, then pretends with A again that it is an apple, etc.), 3-year-olds flexibly adapted their inferential pretence acts to each given context, even switching back and forth between them (Wyman, Rakoczy and Tomasello, submitted).

In their own systematic and creative pretence acts, young children thus respect the normative inferential implications of joint fictional status assignments. So does that mean they are aware of the normative structure of such (proto-) institutional activities? Well, not necessarily. Acting in accordance with a rule does not yet amount to truly following a rule. What is needed as an indicator of the latter are more directly normative behaviours beyond acting appropriately oneself, in particular normative responses to third party inappropriate acts, such as protest, criticizing and teaching.

We recently began to investigate such normative responses to third party mistakes in young children (Rakoczy, 2008). The child and an experimenter set up a joint pretence scenario with neutral objects which were assigned different fictional status. For example, in a pretend eating scenario, some yellow wooden blocks counted as 'sandwiches' and a green wooden block counted as 'soap', and the experimenter and the child pretended to wash their hands and then have a snack. Then at some point entered a third party, a puppet (operated by another experimenter),<sup>4</sup> announced that she wanted to join the game and was invited by the experimenter to do so. In the experimental condition the puppet then performed pretence acts that were normatively inappropriate in light of the fictional status of the objects, i.e. mistakes (for example, announced to 'eat something as well' and pretended to eat the 'soap' block). In a control condition, she performed appropriate pretence acts. Two- and three-year-old children often protested in response to the puppet's (mistaken) act in the experimental condition (e.g. 'No! That's not a sandwich, that's a soap. Don't eat that!'), but virtually never did so in the control condition.<sup>5</sup>

But young children do not just rigidly protest against any kind of act that does not fit their own previous pretence game. Rather, they indicate some awareness of the context-specific normative structure of joint pretence games, of the fact that one and the same kind of act can be appropriate in one context but a mistake in another one. In a recent study to test this, 3-year-olds were again involved in joint pretence games with an adult (Wyman, Rakoczy and Tomasello, in preparation). But the objects used were now familiar everyday objects with a clear instrumental function (e.g. a pen). In a first phase, the experimenter and the child used the object in its normal way (e.g. to draw). In a second phase, they started a pretence game in which the object acquired fictional status (e.g. counted as a 'toothbrush'). In the course of this game the puppet then entered and always performed the same kind of act, namely the usual instrumental one with the object (e.g. drawing)—the difference between conditions lying only in the announcements of the act. In the experimental condition, the puppet announced beforehand that she was going to join the pretence game and was invited by the experimenter to do so. In the control condition, in contrast, the puppet announced that she did not want to join the game, but would rather like to do something else. That is, the same act, though it was the usual instrumental act with the object, constituted a mistake in the former condition but not in the latter. The 3-year-olds were sensitive to this context-relative normativity: They often intervened in the experimental condition (e.g. 'No! That's our toothbrush here ...'), but hardly ever in the control condition.

<sup>4</sup> The main reason for having a puppet perform the actions here rather than a real human was that we found in pilot work that young children were rather reluctant to criticize adult humans. This fits with a recent study by Jaswal and Neely (2006) suggesting that children's default expectation is that adults are competent authorities.

<sup>5</sup> For a similar pattern of young children's normative responses to third party mistakes in the domain of simple non-pretence rule games, see Rakoczy, Warneken and Tomasello, 2008.

That is, young children do not only flexibly adapt their own pretence acts to different contexts, but their normative responses to others' appropriate or inappropriate actions are also mediated by an awareness of the context-relative nature of pretend game rules.

In sum, early social pretence is a form of collective we-intentionality involving joint status assignment and thus embodying the basic structure of institutional phenomena. As perhaps the first area where children come to understand the logical and normative structure of institutional reality, pretend play might even constitute something like a Zone of Proximal Development (Vygotsky, 1978), a bootstrap or a cradle for the development of understanding institutional life more generally (Rakoczy and Tomasello, 2007). Such a possibility would square nicely, for example, with Walton's (1990) claim in the philosophy of art that games of pretence are the logical foundation of the representational arts: works of art are basically to be understood as props in games of make-believe. And such a possibility would make sense in light of the holistic structure of institutional phenomena. Most institutional phenomena are holistically inter-related in a huge network. Think of issues of property, money, and other economic notions. One cannot understand anything about a given institutional phenomenon unless one understands much about many other institutional phenomena. But how then can the child ever enter into this network? One obvious possibility is that there are nodes towards the outer ends of the net less holistically bound up with the rest (in analogy to observation-like sentences in the case of the web of a language). And games, in particular games of pretence, might be instances of just such activities. They are isolated from most other practices in the sense that they do not have real-life consequences (see Searle, 1991). And they mostly have transient, short-lived contexts made up on the spot by the play partners. Both regarding the temporal structure and the participants involved, they are thus comparatively little dependent on the rest of institutional life, and in this way ideally suited as a starting point.

Another way to see this is to consider the role of performative speech acts in 'serious' institutional practices and in games. Performative speech acts bring about a state of affairs just by being uttered in the right context (Searle, 1969). Standard examples include 'You are hereby married' uttered by a registrar at a wedding. These states of affairs typically are institutional facts: 'Your name is Paul'; 'You are married'; 'I hereby declare you guilty' etc. To understand such speech acts, one must understand the right kind of context, and in most cases these contexts involve a great deal of institutional reality holistically inter-related (such as rights, duties, families, authorities, courts etc.).

Speech acts setting up pretence games reveal a striking analogy to such serious performative acts. The typical way to set the scene in joint pretend games is to say things like 'This (wooden block 1) is our soap now and this (wooden block 2) is our sandwich ...'. Uttered in the right context, such a kind of speech-act is quasi-performative—it sets the scene, it defines the very game, and in the game it makes it a fact that now one block counts as a 'soap' etc. What the right kind of context is, though—and this is the central point—is dramatically simpler to understand

here than in the case of serious institutional phenomena. No recourse to a web of related practices is needed. What makes the context right is only a matter of the agreement of the other participants. This is the sense in which pretending is a form of fictional world-making. And on the model of such fictional world-making children might come to understand fact-making in more serious institutional areas.

### 3. Conclusion

Early child pretend play is a remarkable instance of advanced forms of individual and collective intentionality. In interpreting others' pretence behaviours, young children reveal some relatively sophisticated second-order intentionality. In contrast to lean interpretations of the child's understanding of pretence (e.g. Lillard, 1998; Nichols and Stich, 2000), young pretenders do not just see pretending as a form of deviant (*as-if*) behaviour. Rather, they see pretence as a specific form of *intentional action*. They grasp the basic intentional structure of pretending in contrast to other forms of superficially analogous *as-if*-behaviours (e.g. failed attempts) which enables them to respond flexibly, creatively and inferentially appropriately to others' pretence acts. However, in contrast to strongly modular, nativist and concept-atomistic accounts (Leslie, 1987, 1994), this does not necessarily warrant ascribing mastery of the full-fledged adult concept 'pretend' to 2-year-olds. Rather, on a moderately holistic view of concept-possession, the young pretender can be seen as mastering some though not all inferential connections central to our adult concept of pretending (much like the young folk psychologist generally who masters some but not all inferential moves central to our concept of 'intention', for example). Coming to understand pretending is a gradual affair of conceptual change.

That leaves us with two central questions for future research in this area. First, how exactly do children move from an early understanding of pretending as a specific form of non-serious intentional activity (from the time they pretend) to our mature adult understanding? How exactly do they come to master new inferential relations between, for example, pretending, believing, deceiving etc.?

And second, how do children come to understand and acquire pretence as a specific form of intentional activity in the first place? Quite likely, pretence grows out of simpler forms of action. Pretend play is a non-serious, non-instrumental form of intentional action done for its own sake. In coming to understand and acquire pretending, children probably build on their understanding of intentional action, and of non-serious and non-instrumental forms of action in particular which develop some months before the ontogenetic emergence of pretend play. From around one year of age, children reveal some basic understanding of intentional action (as indicated, in particular, in their imitation; see Tomasello and Carpenter, 2005), and of simple 'non-serious' acts such as teasing (Behne, Carpenter, Call and Tomasello, 2005; Reddy, 1991). And from 14 months infants

show some grasp of non-instrumental acts done for their own sake: They imitate bizarre instrumental actions and mannerisms of an actor only when this actor could have done otherwise, i.e. used more standard means or styles (and not when the person had no choice given the circumstances; Gergely *et al.*, 2002). This suggests that at this age infants understand some actions are just means, whereas others are ends in themselves. Such understanding of simpler non-serious and non-instrumental forms of actions is probably necessary, but surely not sufficient for understanding pretending. So how exactly children's precocious action understanding combines with a growing imagination of hypothetical and counterfactual affairs to yield an emerging grasp of pretence is a challenging question for future research.

But as we saw, children's pretend play is not only remarkable in the second-order intentionality it reveals. Early social pretending is a form of shared or collective we-intentionality. And it is one of the first forms of collective activities with the bare bones of institutional structure. A conceptual challenge for future research in this area is how exactly to describe such precocious forms of collective intentionality. Given that most conceptual analyses of full-blown collective intentionality adult-style require sophisticated higher-order intentionality (mutual beliefs about beliefs etc.) of a kind not possessed by young children, what child-friendly explications of simpler forms of collective intentionality could there be?<sup>6</sup> The related empirical challenge is then how exactly to describe the gradual development of such ever more complex forms of collective intentionality, and to which degree pretence itself plays a crucial role in bootstrapping subsequent forms of institutional activities.

*Department of Developmental and Comparative Psychology  
Max-Planck-Institute for Evolutionary Anthropology, Leipzig*

## References

- Astington, J.W. 2001: The paradox of intention: assessing children's metarepresentational understanding. In B.F. Malle, L.J. Moses and D.A. Baldwin (eds), *Intentions and Intentionality: Foundations of Social Cognition*. Cambridge, MA: MIT Press, 85–103.
- Behne, T., Carpenter, M., Call, J., and Tomasello, M. 2005: Unwilling versus unable: infants' understanding of intentional action. *Developmental Psychology*, 41, 328–337.
- Boesch, C., and Boesch, H. 1989: Hunting behavior of wild chimpanzees in the Tai-National-Park. *American Journal of Physical Anthropology*, 78, 547–573.

---

<sup>6</sup> For versions of this problem in the areas of communication and cooperation, see Breheny, 2006; Rakoczy, 2006; Tollefsen, 2005.

- Bratman, M. 1987: *Intentions, Plans and Practical Reasoning*. Cambridge, MA: Harvard University Press.
- Bratman, M. 1992: Shared cooperative activity. *The Philosophical Review*, 101, 327–341.
- Breheny, R. 2006: Communication and folk psychology. *Mind & Language*, 21, 74–107.
- Brownell, C., and Carriger, M.S. 1990: Changes in cooperation and self-other differentiation during the second year. *Child Development*, 61, 1164–1174.
- Brownell, C., and Carriger, M.S. 1993: Collaborations among toddler peers: individual contributions to social contexts. In L. Resnick, J.M. Levine and S.D. Teasley (eds), *Perspectives on Socially Shared Cognition*. Washington, DC: American Psychological Association.
- Eckerman, C.O., and Didow, S.M. 1996: Nonverbal imitation and toddlers' mastery of verbal means of achieving coordinated action. *Developmental Psychology*, 32, 141–152.
- El'Konin, D.B. 1966: Symbolics and its function in the play of children. *Soviet Education*, 8, 35–41.
- Friedman, O., and Leslie, A. 2006: The conceptual underpinnings of pretense: pretending is not 'behaving-as-if'. *Cognition*, 105, 103–124.
- Gergely, G., Bekkering, H., and Király, I. 2002: Rational imitation of goal-directed actions. *Nature*, 415, 755.
- German, T.P., and Leslie, A.M. 2001: Children's inferences from 'knowing' to 'pretending' and 'believing'. *British Journal of Developmental Psychology*, 19, 59–83.
- Gilbert, M. 1990: Walking together: a paradigmatic social phenomenon. *Midwest Studies in Philosophy*, 15, 1–14.
- Haight, W., and Miller, P.J. 1992: The development of everyday pretend play: a longitudinal study of mothers' participation. *Merrill Palmer Quarterly*, 38, 331–349.
- Harman, G. 1976: Practical reasoning. *Review of Metaphysics*, 79, 431–463.
- Harris, P.L. 1994: Understanding pretense. In C. Lewis & P. Mitchell (eds), *Children's Early Understanding of Mind: Origins and Development*. Hove: Erlbaum, 235–259.
- Harris, P.L., and Kavanaugh, R.D. 1993: Young children's understanding of pretense. *Monographs of the Society for Research in Child Development*, 58 [231], v–92.
- Harris, P.L., Lillard, A., and Perner, J. 1994: Commentary: triangulating pretence and belief. In C. Lewis and P. Mitchell (eds), *Children's Early Understanding of Mind: Origins And Development*. Hove: Lawrence Erlbaum Associates, Inc., 287–293.
- Hulme, S., Mitchell, P., and Wood, D. 2003: Six-year-olds' difficulties handling intensional contexts. *Cognition*, 87, 73–99.
- Jarrold, C. 2003: A review of research into pretend play in autism. *Autism*, 7, 379–390.
- Jarrold, C., Boucher, J., and Smith, P. 1993: Symbolic play in autism: a review. *Journal of Autism and Developmental Disorders*, 23, 281–307.
- Jarrold, C., Carruthers, P., Smith, P.K., and Boucher, K. 1994: Pretend play: is it metarepresentational? *Mind & Language*, 9, 445–468.
- Jaswal, V., and Neely, L. 2006: Adults don't always know best. Preschoolers use past reliability over age when learning new words. *Psychological Science*, 17, 757–758.

- Leslie, A.M. 1987: Pretense and representation: the origins of 'theory of mind'. *Psychological Review*, 94, 412–426.
- Leslie, A.M. 1988: Some implications of pretense for mechanisms underlying the child's theory of mind. In J.W. Astington, P.L. Harris and D.R. Olson (eds), *Developing Theories of Mind*. Cambridge: Cambridge University Press, 19–46.
- Leslie, A.M. 1994: Pretending and believing: issues in the theory of ToMM. *Cognition*, 50, 211–238.
- Leslie, A.M. 2002: Pretense and representation revisited. In N.L. Stein and P.J. Bauer (eds), *Representation, Memory, and Development: Essays in Honor of Jean Mandler*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Lillard, A.S. 1993: Young children's conceptualization of pretense: action or mental representational state? *Child Development*, 64, 372–386.
- Lillard, A.S. 1994: Making sense of pretence. In C. Lewis & P. Mitchell (eds), *Children's Early Understanding of Mind: Origins and Development*. Hove: Erlbaum, 211–234.
- Lillard, A.S. 1998: Wanting to be it: children's understanding of intentions underlying pretense. *Child Development*, 69, 981–993.
- Lillard, A., and Witherington, D.C. 2004: Mothers' behavior modifications during pretense and their possible signal value for toddlers. *Developmental Psychology*, 40, 95–113.
- Moses, L.J. 2001: Some thoughts on ascribing complex intentional concepts to young children. In B.F. Malle, L.J. Moses and D.A. Baldwin (eds), *Intentions and Intentionality: Foundations of Social Cognition*. Cambridge, MA: MIT Press, 69–83.
- Nichols, S., and Stich, S. 2000: A cognitive theory of pretense. *Cognition*, 74, 115–147.
- Nichols, S., and Stich, S. 2003: *Mindreading: An Integrated Account of Pretense, Self-Awareness and Understanding Other Minds*. Oxford: Oxford University Press.
- Nielsen, M., and Christie, T. 2008: Adult modelling facilitates young children's generation of novel pretend acts. *Infant and Child Development*, 17, 151–162.
- Perner, J., Baker, S., and Hutton, D. 1994: Prelief: the conceptual origins of belief and pretence. In C. Lewis and P. Mitchell (eds), *Children's Early Understanding of Mind: Origins and Development*. Hove: Lawrence Erlbaum Associates, Inc, 261–286.
- Rakoczy, H. 2006: Pretend play and the development of collective intentionality. *Cognitive Systems Research*, 7, 113–127.
- Rakoczy, H. 2007: Play, games, and the development of collective intentionality. In C. Kalish and M. Sabbagh (eds), *Conventionality in Cognitive Development: How Children Acquire Representations in Language, Thought and Action. New Directions in Child and Adolescent Development. No. 115*. San Francisco: Jossey-Bass, 53–67.
- Rakoczy, H. 2008: Young children understand the normative structure of joint pretend games. *Developmental Psychology*, 44, 1195–1201.
- Rakoczy, H., and Tomasello, M. 2006: Two-year-olds grasp the intentional structure of pretense acts. *Developmental Science*, 9, 558–565.
- Rakoczy, H., and Tomasello, M. 2007: The ontogeny of social ontology: steps to shared intentionality and status functions. In S.L. Tsohatzidis (ed.), *Intentional Acts and Institutional Facts: Essays on John Searle's Social Ontology*. Berlin: Springer Verlag, 113–137.

- Rakoczy, H., Tomasello, M., and Striano, T. 2004: Young children know that trying is not pretending—a test of the ‘behaving-as-if’ contrual of children’s early concept of ‘pretense’. *Developmental Psychology*, 40, 388–399.
- Rakoczy, H., Tomasello, M., and Striano, T. 2005: On tools and toys: how children learn to act on and pretend with ‘virgin’ objects. *Developmental Science*, 8, 57–73.
- Rakoczy, H., Tomasello, M., and Striano, T. 2006: The role of experience and discourse in children’s developing understanding of pretend play actions. *British Journal of Developmental Psychology*, 24, 305–335.
- Rakoczy, H., Warneken, F., and Tomasello, M. 2008: The sources of normativity: Young children’s awareness of the normative structure of games. *Developmental Psychology*, 44, 875–881.
- Rawls, J. 1955: Two concepts of rules. *The Philosophical Review*, 64, 3–32.
- Reddy, V. 1991: Playing with others’ expectations: Teasing and mucking about in the first year. In A. Whiten (ed.), *Natural Theories of Mind: Evolution, Development and Simulation of Everyday Mindreading*. Oxford: Basil Blackwell, 143–158.
- Russell, J. 1987: ‘Can we say...?’ Children’s understanding of intensionality. *Cognition*, 25, 289–308.
- Searle, J. 1969: *Speech Acts: An Essay on the Philosophy of Language*. New York: Cambridge University Press.
- Searle, J.R. 1983: *Intentionality: An essay in the philosophy of mind*. Cambridge: Cambridge University Press.
- Searle, J.R. 1990: Collective intentions and actions. In P. Cohen, J. Morgan and M. Pollack (eds), *Intentions in communication*. Cambridge, MA: MIT Press, 401–415.
- Searle, J.R. 1991: Intentionalistic explanation in the social sciences. *Philosophy of Social Sciences*, 21, 332–344.
- Searle, J.R. 1995: *The Construction of Social Reality*. New York: Free Press.
- Searle, J.R. 2005: What is an institution? *Journal of Institutional Economics*, 1, 1–22.
- Slade, A. 1987: A longitudinal study of maternal involvement and symbolic play during the toddler period. *Child Development*, 58, 367–375.
- Tollefsen, D. 2004: Collective intentionality In *The Internet Encyclopedia of Philosophy*. Retrieved 12/22/2005 from <http://www.iep.utm.edu>
- Tollefsen, D. 2005: Let’s pretend!: children and joint action. *Philosophy of the Social Sciences*, 35, 75–97.
- Tomasello, M., and Call, J. 1997: *Primate Cognition*. New York: Oxford University Press.
- Tomasello, M., and Carpenter, M. 2005: Intention reading and imitative learning. In S. Hurley and N. Chater (eds), *Perspectives On Imitation. From Neuroscience to Social Science: Vol. 2: Imitation, Human Development, and Culture*. Cambridge, MA: MIT Press.
- Tomasello, M., Carpenter, M., Call, J., Behne, T., and Moll, H. 2005: Understanding and sharing intentions: the origins of cultural cognition. *Behavioral and Brain Sciences*, 28, 675–691.
- Tomasello, M., and Rakoczy, H. 2003: What makes human cognition unique? From individual to shared to collective intentionality. *Mind & Language*, 18, 121–147.

- Tuomela, R. 1995: *The Importance of Us: A Philosophical Study of Basic Social Notions*. Stanford, CA: Stanford University Press.
- Tuomela, R., and Miller, K. 1988: We-intentions. *Philosophical Studies*, 53, 367–389.
- Vygotsky, L.S. 1978: *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press.
- Walker-Andrews, A.S., and Harris, P.L. 1993: Young children's comprehension of pretend causal sequences. *Developmental Psychology*, 29, 915–921.
- Walker-Andrews, A.S., and Kahana-Kalman, R. 1999: The understanding of pretence across the second year of life. *British Journal of Developmental Psychology*, 17, 523–536.
- Walton, K.L. 1990: *Mimesis as Make-believe*. Cambridge, MA: Harvard University Press.
- Warneken, F., Chen, F., and Tomasello, M. 2006: Cooperative activities in young children and chimpanzees. *Child Development*, 77, 640–663.
- Wyman, E., Rakoczy, H., and Tomasello, M. in preparation: Status functions and context-specificity in young children's pretend play.
- Wyman, E., Rakoczy, H., and Tomasello, M. submitted: Three-year-olds understand status functions in pretense.