Empathy, an integrative model

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Abstract

Empathy research has yielded various separate insights into empathy and its correlates. Yet a comprehensive theoretical account that situates these factors within a larger framework is lacking. In this paper a conception of empathy is proposed and defended, which makes it possible to provide an encompassing reconstruction of the processes that are characteristic of empathic encounters. This conception situates empathy within a context of communication. Doing so allows one to connect various treads in empathy research, but at the same time urges one to take new factors into account. It is argued that empathy is a response to a specific demand occurring in a specific context. The type of answer persons are able to provide depends on four types of factors. First, there are the psychological empathic components. We argue that empathy should be seen as a combination of (especially) parallel and reactive emotions, against a background of specific cognitive abilities. Second, it is argued that empathy is aided by a twofold control system, comprised of judgements and forms of self-control. Third, personality factors play a part in how a person responds to demands. Finally, but most importantly, it is pointed out that specific relational factors codetermine empathic reactions. In this paper we describe the theoretical background of our model and provide an elaborated account of the four factors that determine empathic acts in a given context. We illustrate the viability of our model by presenting observational data of children’s empathic acts.

1. Introduction

We can observe that a large number of 2-year-old infants try to comfort their mothers when they hurt their knee or when they have a coughing fit. What makes an

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infant respond in this way? What do they think and feel at that moment? Is this type of behavior a good example of empathy? And do children lack something when they do not react to those signs of pain and discomfort? If so, what can this be?

Empathy is identified with role taking (knowing what another person feels), with emotional congruence (feeling what another person feels), and with sympathetic concern (caring and responding to what another person feels) (Davis, 1996; Eisenberg & Strayer, 1987; Levenson & Ruef, 1992). These definitions delineate different psychological processes as empathic. Still, although there is little consensus about what is the core, or the ‘right’ definition of empathy, it is generally agreed that empathy is relevant for prosocial action and that all the factors delineated above are important—whether they are labelled as empathy or not (Zahn-Waxler, Radke-Yarrow, Wagner, & Chapman 1992). Apart from these psychological elements, other psychological and contextual factors are mentioned as relevant for understanding how children react to pain and need. Hoffman (1982, 1984, 1987) relates empathic reactions to cognitive development and points to the importance of the emergence of self—other differentiation as the general cognitive background of the development of empathy. Eisenberg (Eisenberg & Fabes, 1992; Eisenberg & Okun, 1996) emphasizes the crucial role of self-regulation in handling the pain and need of others. Empathic behaviour is impossible without the ability to regulate emotions, according to Eisenberg. Davis (1996) points to the importance of contextual, especially relational factors in empathy, and has situated these (and other) possible antecedents of empathy within an organizational model.

These developments in research on empathy surely broadened our horizon in understanding empathy. However, an overall picture of the processes and contextual features that lead (for example) children to comfort their mother when she is in pain, is still missing. In this paper we want to provide such an integrative framework. We think it is possible to provide an integrative account by relying on a (pragmatic) communication perspective. In this paper we first describe our model in broad outlines. Subsequently we argue for its viability by showing that this model is a useful guide for observing the reactions of infants to pain and need in especially the context of mother–child interaction, as well as for the relational features that have an impact on the child’s reaction. Thus we want to illustrate that the concepts we deem important allow for relevant and non-trivial observations. Our model is integrative, but has its limits. It does not explain the genesis of empathic abilities, nor does it illuminate the ways in which empathic abilities can be furthered. Our model aims at clarifying and integrating the factors that play a role in empathic encounters. This is but a first step towards a comprehensive theory on empathy, yet we believe, a necessary one.

2. An integrative model of empathy

2.1. Background

The model we want to propose is based on two general assumptions. First, we assign a formal function to empathy. Roughly: finding a way of responding to the
perceived feelings (pain, need, discomfort) of others. This function can be conceived as the way in which an even more general function manifests itself (e.g. achieving affiliation). We will, however, largely ignore the (evolutionary) background of the function we have assigned to empathy. Secondly, we stipulate that finding a way of responding takes place within a context of communication. This means that empathy (and its development) is not conceived as an individual quality only, but as a feature of particular relationships as well.

These points of departure have various (conceptual) advantages. First, empathy is seen as an answer to a particular demand, namely responding to (perceived) need or pain. The way in which a person responds to such a demand, then, automatically falls within the empathic domain. Even in cases where a person does not respond prosocially towards a target agent, we can categorize his reaction as relevant for empathy. For us, then, empathy cannot be confined to role taking, or congruent or sympathetic emotions. All these psychological components can be present in an empathic reaction. There is no reason to leave one factor out, if that particular factor can contribute to the way a person responds to the perceived feelings (need or pain) of others.

Secondly, communicative patterns and thus the concepts by which these patterns can be described, become important in the study of empathy. We see these concepts as integrative and additional. They do not have to replace the concepts that are heavily in use at the moment for understanding empathy (e.g. care, concern, role taking, emotional regulation), although we must add that a communicative perspective might alter the way in which these concepts are to be understood. Understanding empathy from the perspective of communication means that empathy cannot be confined to the understanding of the qualities of the empathic person. We must also understand the relationship of the empathic person with the person in need, as well as—in some cases—specific features of the person in need. The manner in which, for instance, the child or the parent expresses (‘communicates’) a need, is an important factor in the type of empathic reactions that is elicited.

Thirdly, these assumptions allow one to study noncognitive ways of transference of signs and information, as well as cognitive forms of information transfer (e.g. information in the form of propositional attitudes, like belief and desire). Empathic crying and facial empathy, two early forms of responding to signs of pain or need, can—from this perspective—clearly be seen as falling within the empathic domain. Cries as well as facial gestures are, after all, reactions towards signs of pain, etc., even if it is not clear whether infants understand the meaning of those facial expressions or cries in terms of certain propositions (e.g. “he cries because he is in pain”). The fact that it is a reaction to a sign of pain or need is sufficient. Taking on board these types of reactions allows one to study the development of empathy in a broader sense then is usually done. The use and development of all resources children have in responding to others becomes part of the study of empathy. In this regard, empathy research can profit from the rich experimental and observational studies on the awareness of infants of interpersonal signals (Nadel & Camioni, 1993; Uzgiris, 1984; cf. Trevarthen, 1993).
Fourth, the connection with communication allows one to bypass questions like ‘can one ever feel what another persons feels’ (Goldman, 1993). For communication does not rest on the correct interpretation of a sign, but on the—sometimes counterfactual—assumption that the other is in pain or in need. Empathy thrives on how the empathic person presupposes that the other feels, not on how he actually feels (Stalnaker, 1999). The notion of communication, thus, does not set heavy requirements for (personal) understanding. If the sounds and gestures of young infants have meaning for others in the contexts, this is a sufficient reason for seeing them as meaningful signs.

Fifth, to situate empathy in a communication context also allows one to relate empathy and its development to interpersonal relationship and subsequently to socio-cultural processes. Patterns of communication, after all, take place within a relational context, which at the same time is socio-historical. These contexts will exercise influence on the way in which empathic behaviour takes shape (Astington, 1996; Bruner, 1996; Olson, 1994). As stressed earlier, this does not only imply that additional considerations become relevant, but also that the interpretation of the previously mentioned factors might change as a consequence hereof (as we shall illustrate in the next paragraph).

Finally, by situating empathy within a communication perspective, one does not have to rely on a specific theory of the mind. We do not need a specific ontological theory that can explain the possibility of empathy. The conceptualisation of empathy becomes thus on a par with what Dennett (1987) calls a ‘stance’: a useful way of perceiving others for practical (e.g. communicative) purposes. Our approach thus contrasts, though not contradicts, on the theoretical level with representational theories, which presuppose that representations are naturally grounded in something akin to ‘correspondence with reality’ (a position taken by Botterill & Carruthers, 1999, among others). In a context of communication it is not particular ‘true’ representation which gains providence, but those that serve communicative purposes and what those are is partly determined by the context (Habermas, 1998; Stalnaker, 1999). So there is no particular need for explaining how the mind is capable of tracing the truth, in this case, the feeling state of others.¹

Our formal and communicative approach, however, does not give us a definite clue as to how we should understand ‘an adequate empathic reaction’. We won’t touch this particular question. We can only say that an adequate empathic reaction is one that best fulfils the assigned function within a given communicative context. This clue does not bring us very far. It needs substantiation from a value perspective (or perhaps: an interpretative community) that specifies what type and kind of help is warranted (and morality justified) in what type of (relational) contexts. However, it

¹Habermas (1998) also makes a distinction between an approach to interpersonal understanding, which takes intentionality as a starting point, and an approach, which is intersubjective from the onset. The pragmatic perspective we explore here is clearly based on intersubjectivity. However, we do hold that intersubjectivity does need some stage setting on the individual level. We agree with Habermas though that interpersonal understanding is a matter of intersubjective agreement.
does suggest that a genuine empathic reaction is responsive to the demand at hand (in situations where this is appropriate) and thus will at least encompass reactive emotions, like care or concern.

To summarize: Our approach is grounded in a pragmatic approach to communication. The idea of communication functions as an integrating factor in our model and it colours the way in which we interpret the factors that we think are crucial in an empathic encounter.

2.2. Psychological components of empathy

We defend an affective conception of empathy. We hold that affective components are necessary for labelling a response as empathic. The motive for empathic behaviour is, we claim, affective. Empathy thrives on being moved by the perceived feelings of the other: her need or pain. Empathy starts from affiliation, or rather, the need for affiliation.

Affiliation is a basic need; it is instrumental to all other needs. Affiliation is also a primary need in the sense that it is present at the moment the child is born. As empathy is related to the need for affiliation; the first and most basic forms of empathy cannot be based on cognitions. Rather, they are built on non-cognitive ways of responding, which occur in a relational context. Indeed, young children react to signs of pain and the like (e.g. crying sounds, sad faces) well before they have a cognitive understanding of these states (Trevarthen, 1993; Trevarthen, Kokkinaken, & Fiamenghi, 1999). These primarily empathic reactions, we claim, are basic to the further development of empathy. This development can be comprehended as a matter of integrating and coordinating particular affects with interpersonal understanding in a variety of social (relational) contexts. Fulfilling the need for affiliations is—in the normal chain of events—by then distributed over a variety of persons and institutions.

In what follows we shall discuss the psychological components of empathy as comprised of three more or less distinct psychological ingredients of empathy, that is, more or less distinct ways of responding to signs of pain and need (though we do not preclude that these ingredients can be present in one and the same empathic encounter). First, we distinguish what we reluctantly call emotional ‘contagion’, a component of empathy under which the early forms of empathy reside, for emotional contagion does not involve a cognitive understanding of the situation and state of mind of the other. Though this ingredient of empathy is present in very young infants, it can also be witnessed later in life. We automatically smile back when someone smiles to us and thus catch a ‘happy feeling’. In our discussion we will confine ourselves to the early forms of emotional contagion, especially to what is called reactive crying and facial empathy. We use the term contagion, because it is used commonly in the literature to denote non-cognitive, as well as early forms of empathy. Our reluctance to do so stems from the fact that this notion suggests that reactive crying and facial empathy should be seen a precursors of parallel emotionality. We hold that there are no good reasons to think of these types of emotions as parallel, instead of reactive.
Second, we distinguish parallel emotionality (or ‘emotional congruence’). This part of empathy is comprised of typical cognitive and affective components. Third, we distinguish reactive emotions (sympathy or concern), which also have their own cognitive and affective characteristics. Various authors consider role taking as a separate component of empathy. In our model, role taking is not absent, rather it figures in the form of the cognitions that co-constitute parallel and/or reactive emotions. This is, we feel, a good thing. For role taking is a broad concept, which—when connected with the relevant affects—can be described in more precise terms.

We argue that genuine empathy is comprised of at last reactive emotions, though we surely consider responses to pain and need which are characterized by emotional contagion or parallel emotions as falling under the category ‘empathy’.

2.3. Emotional contagion

The primary impetus, will or urge to react to signs of discomfort does not depend on an understanding of the state of well being of others. Newborns already react—in quite specific ways—to signs of pain and hurt. In the (communicative) context of the parent–child relationship, patterns of actions and reaction develop which are based solely upon bodily and affective (vocal) expressions (Trevarthen, 1993). What is called ‘empathic crying’ relates to these forms of action and reaction. Empathic crying is considered one of the earliest manifestations of an empathic reaction and refers to the phenomena of new-borns responding to the sound of crying of other infants. Though the amount of studies is limited, they all show that newborns cry in response to the cries of other newborns. In addition those studies reveal that newborns react more strongly to the cries of peers in comparison to other sources of distress, including the taped sound of their own cries, a computer simulation of a cry, or of a chimp crying (Martin & Clarck, 1982; Sagi & Hoffman, 1976). As it is generally agreed that newborns lack understanding of the emotional states of others, empathic crying is generally understood as a reaction that is ‘wired in’. This means that when an event of object is perceived, a particular response follows. The connection between perceiving and reacting is already in place. Apart from empathic crying, authors have pointed to ‘facial empathy’ as a form of empathy, which can be traced to early childhood. Facial empathy refers to the ability of neonates to imitate facial gestures (Meltzoff & Moore, 1983, 1989). These imitations include emotional facial gestures, but others as well (e.g. tongue procrustean). Imitation of facial gestures does not necessarily lead to empathic emotions, but, as various authors have pointed out, facial imitation can and often does result in the experience of those emotions (Bavelas, Black, Lemery, & Mullet, 1987; Hatfield, Cacioppo, & Rapson, 1992). When young children—often involuntary—imitate a sad expression, so this view holds, feelings of sadness occur automatically. When explaining the occurrence of empathic emotions in new-borns, authors also refer to

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2 This is an example of ‘stage setting’, that is, a precondition for intersubjectivity to put the same point in other words: If the child does not have those connections in place, particular (meaningful) patterns of communication will not get started.
particular innate mechanisms (for example, a connection between the brain and facial muscles). Some researchers, however, have pointed out that attention to innate mechanism has resulted in a diminished perception of the possible role of the communicative context (Nadel, 1980).³ It has been shown in naturalistic studies that mothers imitate their infants vocalisations and also that the child—though to a lesser degree—imitates mother (Kugiumutzakis, 1999). It might be the case that the pattern of communication, which is driven by interest and pleasure of both mother and child, co-shapes the imitative behaviour of the young child, including facial and vocal imitations that are tied up to emotions. This might indicate the necessity of viewing early empathy within a relational context.

Even though we think the criticism of focussing too much on innate mechanisms is justified, we also want to point out that it is the lack of communicative content, which allows one to conceptualise particular emotions as founded on innate mechanisms. If those emotions occur as result of communication, it would be difficult to consider them (solely) as innate. While we study empathy from a perspective of communication, this does not mean that communication can do without stage setting (Kugiumutzakis, 1999). Indeed, the proclivity to react to signs of distress can easily be conceived as a kind of predisposition infants have in order to engage in communication (this is stressed by Trevarthen, 1993, especially). This, of course, does not remove the necessity of viewing children’s primary empathic reactions from the perspective of their possible function in social contexts. After all, the pattern of responses towards these primary (inborn) reactions of children codetermines how empathy functions and subsequently develops in a context (Trevarthen et al., 1999).

Furthermore, we want to stress that we do not want to interpret these early forms of empathy in terms of either parallel or of reactive emotions (of a non-cognitive kind). These forms of empathy might seems clear-cut cases of a parallel emotions. After all, in the case of facial empathy one sees that the young child expresses the same type of emotions as the target agent. However, we can only regard those emotions as the same, if the ‘affective quality’ can be taken as similar. Whether this is the case can only be established by postulating a mechanism that accounts for the similarity. And as that mechanism cannot be described in terms of cognitions that are apparent in the emotion (for these are absent), we must rely on theoretical descriptions. If facial empathy is a form of contagion interpreted as a ‘copying mechanism’, facial empathy is clearly in line with the notion of parallelism. For in this case a particular emotion merely travels from one person to another. If, however, one views facial empathy as a kind of play, or as a means for establishing affiliation, facial empathy will not appear as a parallel emotion. It is, then clearly a reaction. For in this case the similarity in expression is the result of a playful reaction (cf. Bavelas, Lemery, & Mullett, 1986; see also Darwall, 1997). However, it would be

³This criticism parallels Habermas’ (1996) point that interpersonal understanding cannot be grasped properly from the perspective of intentionality. An intersubjective perspective which starts form intersubjective agreement is better suited to explain interpersonal understanding. We agree, but maintain that intersubjectivity is not given. It does built on individual propensities.
a mistake to see this type of reaction as an example of a reactive emotion like concern or care, for concern and care presuppose that at least some understanding of the affective state of the other is present (cf. Nichols, 2001).4

We suggest that these early form of empathy are basic to both parallel and reactive emotions.

2.4. Parallel emotions

When empathy is explained in terms of parallel emotions, empathy is seen as a form of emotional understanding. How is this possible? Well, the idea is that the empathic person sees a particular person in need or pain, or hears about her misfortune, views the situation of the other from her perspective and because of that comes to share her feelings. Now, because emotions are parallel, the empathic person can be said to understand emotionality (‘from the inside’) what the other person is going through (Eisenberg & Strayer, 1987).

There are various ways in which this type of emotional understanding can be viewed. Two perspectives, however, stand out, as they provide an elaborated process account of this type of emotional understanding: the simulation theory and an information based account (or the ‘theory’ theory). We have no reason to prefer one theory above the other, so we will present them both as the possible forms which ‘role taking’ can have in this contexts. First we will take a look at the simulation theory.

According to this theory experiencing parallel emotions can be seen as originating from one’s own way of experiencing events (Gordon, 1996a, b; Goldman, 1992, 1993). A (direct) emotion is a response to a situation where one’s interests are thought to be at issue: we think we are threatened, so we feel afraid; we are rewarded for our courage, so we feel proud, etc. (Frijda, 1986). In the case of parallel emotions, one takes in emotional information about events concerning others (their being hurt, having bad luck, being a victim of a robbery, etc.). Subsequently, one responds to that information as if it applies to oneself, and so experiences emotions that are appropriate to the situation of the other. Goldman (1993), referring to the experiments of Stotland (1969), points out that persons are more prone to experience empathic distress when they are encouraged to imagine the sensations others currently have to undergo, e.g. exposure to painful heat. By imagining as if they are exposed to that heat, they induce their emotional response system to produce emotional feelings that fit the situation of the other (Nichols, Stich, Leslie, & Klein, 1996). Gordon (1996b) adds that this type of co-feeling often occurs automatically. It does not necessarily need specific effort from the part of the person who experiences co-feelings. In addition, Harris (1989) points out that the emotions we go through when we watch an action movie, derive from the fact that we respond emotionally to the situation in the picture. We co-experience what the hero in the movie goes through, because we automatically respond to what we perceive as happening to him (or her) from our—first person—perspective.

4 We have reason to assume that empathic emotions are—at a base line level—parallel as well as reactive (Vreeke, 2001).
Nichols et al. (1996) point to alternative interpretations of the process of empathy. According to them, empathy can also be understood as resulting from ‘information’. On their information based account, the empathic person uses emotional information, which he or she already possesses, in order to feel what the other person feels. When a boy observes that his friend is playing with a knife and accidentally cuts his finger, he may at once vividly remember how he once cut himself and instantly feel the shock that particular experience induced. According to this information-based account, we use knowledge in the form of memories (or in other forms), in order to understand the situation of the other. This information is tied up with emotional feeling. So when we observe a particular ‘emotional’ situation, memory is activated and the emotional response follows.

2.5. Reactive emotions

Empathy, we hold, cannot be fully understood in terms of parallel emotion. Empathy is also characterized by reactive emotions. Like authors such as Zahn-Waxler and Batson, we do not think that a person can be considered fully empathic if he or she merely experiences parallel or similar emotions (cf. Batson, Fultz, & Schoenrade, 1987; Batson & Oleson, 1991; Zahn-Waxler et al., 1992; Zahn-Waxler & Robinson, 1995). These emotions signify a kind of emotional understanding, but they do not imply that the person is moved or touched by what the other person feels. The boy who is shocked by the sight of his friend cutting his finger obviously experiences something of what the other person goes through, but can he be considered empathic (or fully empathic) when he subsequently runs away from his friend because ‘he cannot stand the sight of blood’? We, like Zahn-Waxler and Batson, do not think so. ‘Genuine’ empathy includes the urge to provide comfort, to offer support, etc. The boy, who is shocked by the sight of blood, should also be experiencing that particular urge: the urge to help. So genuine empathy should not merely include parallel emotions, it should encompass reactive emotions as well, that is being concerned, compassionate, or caring. The situation of the other is felt as an appeal, that is, as a kind of demand. This implies that the situation of the other is experienced and understood in a certain way. Someone who feels concern for another person sees this situation as a situation the other does not want to be in. So the cognitions that are characteristic of reactive emotions differ from those, which characterize parallel emotions. These cognitions encompasses other regarding terms. If we act empathically we do not merely want to do good to others in a general sense (e.g. act in their interest), we are motivated to do the things others like, or at least find comforting (Dix, 1992). Because of this, we are motivated to understand and learn what particular others like and dislike. These motives, as Dix (1992) indicates, stem from relational facts. Parental empathy for instance stems from the affective ties parents have with their children. Because of these ties and the importance

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5 We must notice that in the end, the position of Eisenberg on the one hand and Zahn-Waxler, Batson and ours on the other, do not differ on a substantial level. For Eisenberg makes a sharp distinction between empathy and sympathy. Reactive emotions, on Eisenberg’s account, are characteristic of sympathy, while parallel emotions define empathy.
parents attach to them, they are motivated to learn what their children want, while at the same time they will experience emotions such as sadness, care, etc. when their child is in pain.

It is this prosocial element that is lacking when empathy is equated with parallel emotions. The empathic person, as we picture him or her, must not only understand need and pain, he or she must also be responsive to the appeal that is apparent in need and pain. This appeal, to put it otherwise, must be felt. Emotional reactivity implies perceiving the other’s emotional state in a particular twofold way. In this sense empathy implies what Batson (1991) calls emotional congruence: one represents someone’s emotional state as one of need and instantly responds to the need one perceives, that is by experiencing the impulse to provide help.\textsuperscript{6} In short, in emotional reactivity, we perceive the state of well being of the other person as an appeal to ourselves. We watch pain and feel concern. We perceive fear and feel the urge to provide comfort. The young child hears her baby sister cry and runs to see what is the matter. Reactive emotions thus motivate pro-social action. The reactive emotions that characterize genuine empathic feelings, then, are prosocial emotions.

We hold that the psychological components of empathy are comprised of emotional contagion, parallel and especially reactive emotions. Reactive emotions are, so we think, a necessary component of genuine empathy. We furthermore suspect that reactive emotions presuppose parallel emotions (though this is an object for further research). We have defined the empathic domain in terms of a response to perceived feeling like pain or need, that is, to a demand. This implies that genuine empathy—empathic reactions that fulfils the function we assigned to it—must at least encompass a reactive component. For reactive emotions imply that someone experiences the situation of the other as a call for help, for alleviating need, for offering comfort.

2.6. The role of the communicative context

Though we do not want to quarrel with the simulation theory, nor with the information based account of empathy, we do want to stress that these views need supplementation when it comes to explaining how the empathic person adjusts his perspective when others do not actually feel how he thinks they feel. If the empathic person uses his own emotional response system or the emotional information he already possess, his empathic reaction is solely based on the assumption that others experience a particular situation in (roughly?) the same manner as he would. Both views acknowledge that this assumption is often not met and have devices to explain how we can come to feel what others feel in those situations. Gordon (1996b), for instance, states that in those situations we can adjust our preferences and beliefs to those of the other person. Subsequently we view the situation of that other person in terms of those adjusted preferences and beliefs, and as a result are able to experience more closely what the other person feels.

\textsuperscript{6} Emotional congruence, on this account, differs from parallel emotions.
The point is, however, that we must have a reason to adjust our perspective to that of the other. How do we know that our own emotional response system is out of tune with that of e.g. a friend, or that the emotional information that we possess does not apply to her particular situation? We cannot suppose this reason coming from our own experience. We must presume, then, that it will derive from our contact or affiliation with her. It is precisely that component of empathy, which is not explained by those theories. We therefore stress that empathy evolves in the context of ongoing relationships and thus that the notion of ‘relationship’ is taken in as a genuine component of empathy. Empathic reactions, after all, are bound to bear the effect of previous empathic and other communicative encounters. If your friend fails on an exam, you might image or deduct from your our memory that she will be disappointed and accordingly try to console her. She, however, is bound to correct your attempts at consolation, if she does not care about the exam at all. The antecedents and consequences of previous attempts at empathic responses, in short the relational context, co-determine future empathic actions and thus play a decisive role how someone will respond to perceived need or pain.

It is surprising how often the relational context of empathy is forgotten in explaining empathic acts. There are many ways to illuminate the importance of the relational context. However, the importance of the context is immediately apparent when we realize that (for instance) children, anticipate the empathy of their parents, not necessarily to manipulate their responses, but rather to make sure that they do respond. So they will make use of strategies of which they know that they will awaken parental empathy. Children seem to know that empathy is like an answer to a question, so they tend to make sure that their ‘question’ is heard. Empathic accuracy does not only stem from one’s empathic abilities, but relates to what one knows and has learned from others in previous empathic encounters, but also on the way the other shows, or is able to show (‘communicate’), or even ‘usually shows’ his pain and need.

2.7. Empathy’s control systems

The control systems function more or less as a bridge between personality and contextual factors on the one hand and the psychological components of empathy on the other (Eisenberg et al., 1996). Whereas responsive emotions alert the person that another person is in need, he or she may at the same time experience fear or reluctance to act in favour of the other. He or she experiences so-called ‘counter inclinations’. In order to act in favour of the other person, the aid of a control system is needed. For if the person at stake does not interfere somehow in his or her emotional make up, his or her reluctance or fear might take the upper hand. In this case an interpersonal conflict has to be sorted out. In others cases we might feel the urge to act in favour of another person, without experiencing any reluctance to do so, but do not know whether in this particular situation it is us (and not someone else) who should provide help. In this case features of the context necessitates a delay between experiencing empathic feelings and acting.
The control systems that are relevant for empathy are twofold: the judgmental system and the ability to control or regulate feelings. There is no doubt that these systems play a crucial part in empathy, but their precise roles and especially their interrelations is by large a blank territory. Here we shall explore some of the possibilities (which we shall illustrate later by concrete examples).

First we will look at the judgmental system. We must first differentiate this system from the cognitive component that is part of the psychological components of empathy we discussed earlier, and which relates to the situation of the person in distress, that is, to the magnitude, cause, etc. of the distress. The judgemental system is separate from that type of understanding. It presupposes it. He is in ‘distress’; however, should I provide help? This is the question, which is faced by the judgemental system. In social situations we make all sort of judgements about our role and responsibilities, about what we ought to do in those cases. These judgements are closely connected to social status, as they relate to role obligations, to expectation of ‘others’, to commitments, to compliance, to obligations, etc. When we perceive need, we often feel the urge to act. Whether we do, however, depends in part on how we judge the more specific parameters of the concrete social situation. Mother hurt her knee, but there is another adult present, should not he help? If we judge that it is our task, job, duty, obligation to help, or simply the thing a friend, a daughter does, this often helps our acting in favour of others.

The second guiding system that plays a role in relation to empathy is the ability to regulate emotions and to control feelings. In the research literature on empathy, this aspect is documented rather well (see for instance Eisenberg & Fabes, 1992). On Eisenberg’s view, as we saw earlier, empathy is primarily a matter of experiencing parallel emotions. Observing the emotions of others causes (similar) emotions in us. We watch the pain and subsequent despair and panic of others and experiences part of that panic ourselves. In some cases we will be unable to handle those emotions, especially when we are unable to envisage a way of action that is optimal for us. In that case, we are unable to act responsive. If we are somehow able to ‘regulate’ those feelings, we might succeed in responding prosocially. The ability then to regulate emotions, that is, finding ways to control them, is conductive for prosocial acts.

We must, however, distinguish between various ways of controlling and regulating emotions. When we control or regulate an emotion, we do things to lessen its impact (Kopp, 1989). However, we may do so by turning away from the emotion-evoking stimulus or by replacing it with other type of feelings or thoughts which are incompatible with the original feelings, and which are more in line with prosocial action (Roberts, 1984; Rothbart & Bates, 1998). Both responses can be understood as means of controlling emotions, for in both cases we perform particular (mental or

7 We must stress that there are various others reasons why we are not disposed to act prosocially to perceived need or pain. We can, for instance, experience antisocial reactive emotions. We watch others in pain, but do not feel concern at all. So, a full-fleshed account of responses that fall within the empathic domain, should consider the full range of emotional responses the pain or need of other might evoke. This will also lead to a more comprehensive account of the various roles control systems serve in order to arrive at a prosocial act. However, we shall focus here primarily on parallel emotion as object of control.
other) acts, which result in diminishing the impact of the emotion at hand. We will speak here of negative versus positive control. Negative control implies shying away from the emotion provoking stimulus, whereas positive control is characterized by not letting the emotion that we catch from others dictate our action, which means—in this context—that it will lead to approaching the person in need, instead of looking or shying away. Negative control surely is effective in lessening the impact of an emotion, but it is not very productive for responding prosocially. This way of controlling emotions is already a well-known form of self-control of very young children (Kopp, 1989). Genuine empathy, however, seems to require especially positive control. Positive control can take the form of self-talk, focusing on other aspects of the situation, or of forcing a time delay between emotion and subsequent action. Allowing or shifting attention to feelings of sympathy in order to override feelings of fear is also a form of positive control.

2.8. Personality factors in empathy

The way in which personality as well as relational factors are to be understood within a communicative model of empathy is easily misunderstood. We must first of all emphasize that neither personality nor relational factors have a separate impact on empathy. Aspects of personality, when they are considered relevant, are rather conceived as a part of empathy. They overlap with the psychological components or the associated control systems of empathy, and partly explain why a particular actor responded to perceived need or pain in the way he or she did. Relational factors define what—in a particular situation—is considered relevant for acting in favour of the other. Within a secure relationship other considerations are deemed relevant as opposed to an insecure relation.

Personal and relational factors are conceived respectively as external and internal ('personal') factors related to the empathic process, which thus offer opposing explanations of empathic reactions.

From a perspective of communication, personality traits can be considered as more or less stable styles of communication, that is, as those features of communication that do not differ substantially over different context. The specific features of communication in a context can, contrariwise, be considered as relational features of the context. As styles of communication are related to contexts of communication, it is possible to balance research on personality with research on relationship. This means that the study of personality factors can figure as a counterbalance to the focus on the contextual (relational) features of empathy (or the other way round).

The personality factors that are important in empathy are, thus, those factors that can be related in an explanatory way to the psychological components and/or the control systems of empathy. Those personality factors must be able to account for the intra-contextual stability of particular empathic reactions. To illustrate: The way in which a child is disposed to react to signs of pain and need of relatives and strangers signifies—we stipulate—part of the personality of the child. The ‘social’ child (the child who scores high on the sociability factor) is the child who is disposed
to act in favour of others in general and will thus be high on empathic abilities. So part of the personality factors will describe regularities in the way in which a particular child responds to pain or need. These, we claim, are important in empathy research. For they can explain inter-situational regularities in empathic responses (that is relative stable communication patterns). Contrariwise the lack of this type of regularities could point to the relational character of empathic encounters (provided of course that the interactive patterns in various contexts do show some stability). Personality factors related to the control system must, as said, also offer explanations for empathic patterns. Some authors see compliance as a prototypical form of self-regulation, for compliance asks the child to modify his behaviour in accordance with specific standards (cf. Kochanska, Coy, & Murray, 2001). When compliant children appear more empathic compared to less compliant children, this may point to the fact that those children are better able to regulate their own behaviour.

### 2.9. Relational factors in empathy

Relational factors are a crucial part of the contextual (situational) elements in empathy. In the literature there has been attention towards personality factors in empathy, as these factors play a role in explaining individual differences in empathy (cf. Davis, 1996). However, the role of relational factors in empathy has hardly been studied. Here we encounter a neglected area in empathy research. There are, however, powerful reasons to expect that those factors loom large in explaining empathic responses. As empathy evolves in a context of relationships, the nature and quality of that relationship is a crucial factor to consider. If one is studying empathy, it is of the highest importance to include in one’s research different types of contexts where a person is confronted with pain or need. As indicated above, this allows one to weigh the effect on empathic behaviour of the relational context compared to that of personality factors. In a way this type of test is as important as the contrast between genes and environment, for it can teach us about the personal as well as contextual conditions which further or hinder the development of empathy.

In our study we especially focus on the parent–child relationship (though the way in which the child responds to a stranger is observed as well). We think that two components of the parent–child relationship are important in the study of empathy: the quality of attachment between the child and parent, and the child rearing aspects of that relationship (e.g. sensitivity and discipline). The importance of the latter factors, we must stress, does not derive from the fact that sensitive and inductive parenting might lead to the furthering of empathy in the child. As indicated earlier, our model does not seek to explain the genesis of empathic abilities, but tries to illuminate the factors present in the situation, which have an impact on the way in which the child will react to pain, need or distress. It is clear that the quality of the attachment relationship can affect the child’s reaction when mother is in distress. If the relation between mother and child is characterized by insecurity, it is readily conceivable that the child will have trouble to respond empathically to mother (regardless of her empathic qualities!). However, can we expect that parenting style
can have a similar kind of effect? We think so. We expect that the way the child responds to the others when they are in distress is a possible object of child rearing efforts. (Most parents hold the furthering of empathic abilities as a goal of socialisation). A parent might expect, then, some kind of response from their child when someone else or she herself is in pain. It is this expectation that is present in the situation, and as such it is a contextual element that might have an impact on the behaviour of the child.

The two components (attachment and what we shall call ‘parenting’) differ in the sense that the quality of attachment is solely a product of interaction, whereas in parenting this is not the case. Forms of parenting are surely in a general sense responsive to children and their needs (and develop as a consequence thereof), but children do not co-determine their form and content. These aspects of the relationship are mainly the product of parental actions. So, when it comes to the pedagogical components of the parent–child relationship, parental beliefs are a crucial component in determining parental expectations, whereas the quality of attachment is far more a reciprocal (interactive) matter. However, parental expectations do not operate in isolation. Parenting is tied up to more general belief systems, which are partly embodied in institutions (Harkness & Super, 1999). The quality of attachment depends on the parent–child relationship, however, the way in which parents rear their children depends much more on cultural variables.

3. Empathy in young children: reactive and parallel emotions

In order to illustrate the process of empathy, we present examples of toddlers’ empathic reactions when their mother is in distress. We use these empathic responses as illustrations of our model, so they are by no means a test of our views. We are the first to acknowledge that in order to test our views we are in need of more stringent observational schemes than the ones we used. Still, we believe that our observations do illuminate the subtleties that are characteristic of the empathic process. We discuss the reactions of two young girls, Jenny and Robin. We have chosen these girls, because they exemplify different position on the empathic spectrum: Jenny is a highly empathic girl whereas Robin appears relatively unempathic (though she is certainly not without empathic abilities). Both girls participated in a longitudinal research project including the development of empathy and compliance and the role of attachment, temperament and parenting (Van der Mark, 2001). In order to measure empathy their mother pretended to hurt herself and feigned a coughing fit within the home environment, and 1 week later she hurt herself in the playroom at the institute, both when the girls were 17 and 22 months old. We shall first take a look at the role of understanding and of reactive and parallel emotions during a few empathy probes.

Jenny is 17 months old when she and her mother visit the playroom at the university for the first time. During this visit, Jenny and her mother are asked to perform a few tasks, which are filmed by the experimenter. One of those assignments is a simulation task performed by the mother in order to assess Jenny’s level of
empathy. The mother is asked to simulate pain in her finger. Based on Jenny’s reaction in this situation Jenny’s level of empathy is coded in terms of the coding system of Zahn-Waxler, Robinson, and Emde (1992) which includes parallel as well as reactive emotions as part of empathy.

Jenny and her mother just finished their drinks and Jenny is toddling around the room. The toys are all in the cupboard; the room is almost empty, so there is not a lot to do. Then Jenny discovers a black knob on the floor. This knob acts as a buffer between the door and the wall. She approaches it and looks at it carefully. Then her mother cries out in pain. Immediately Jenny looks up at her mother and takes a few steps towards her. After hearing her mother call once more, Jenny throws herself on the floor and starts calling out in the same way as her mother, using the same words. Then she quickly gets back on her feet, looks at her mother for a moment and throws herself on the floor once more, introduced by a little running start this time. After falling down the second time Jenny states in a conclusive way, Mummy hurt.

In this example we can observe a mechanism that is related to parallel emotionality (or affect matching): imitation. What is remarkable is that Jenny, after imitating her mother, seems to reach a conclusion: Mummy hurt. By imitation the action of her mother, Jenny apparently comes to see how mother is feeling. This suggests that imitation itself induced parallel feelings, but of course one cannot say whether Jenny herself experienced the alarm that was typical of her mother. Anyhow, understanding mother’s feeling and imitation or matching her reactions plays a part in Jenny’s reactions. We could say then that Jenny is attempting to empathize with her mother’s feelings of distress in this way. However, in this instance Jenny did not show clear reactive emotions, although stepping towards mother and talking to her clearly shows that her mother’s affective state does not leave Jenny indifferent. We did not observe pro-social behaviour such as trying to comfort mother.

For her reactions following the pain simulation in the playroom, Jenny receives a code 4 (on a scale of 7). Code 4 reflects affect matching (parallel emotions) and eventual imitation of the victim. In previous research this type of empathy is considered to be the possible precursor of prosocial behaviour at a higher age (Zahn-Waxler et al., 1992).

When Jenny is 22 months old the experimenter visits Jenny at her house. Mother is asked to perform the same assignments that she did the previous visit at the playroom, only this time she is asked to hurt her knee and in addition have a coughing fit. Here is Jenny’s response.

Jenny is sitting comfortably on her mother’s lap and together they are looking at some photographs. Then Jenny recognizes something in a photo that is also in a cupboard on the opposite side of the room. She climbs down from her mother’s lap and walks to the cupboard to get the object. When Jenny reaches the cupboard, her mother calls out that she has hurt her knee and bends over. Jenny immediately responds, by looking at her mother with a concerned expression on her face. The cupboard is no longer important. Jenny looks briefly at the experimenter and then redirects her attention with concern towards her mother. Jenny hunkers down in front of her mother and looks attentively and concernedly at her mother’s face that is
distorted with pain. Then Jenny gets up, and embraces her mother. That helps, because the pain is gone now. Jenny starts playing in the living room, while mother goes to the kitchen for a moment, returns and takes a seat on the couch. Meanwhile, back into the room Jenny has just discovered a new game and that is to hide behind the dining table. The game does not last very long though, because suddenly Jenny’s mother starts coughing. Jenny stops her game and runs through the room towards her mother shouting: Mummy cough, cold, mummy coughs! Once next to her mother, Jenny immediately gives her mother a big hug and says: “Your nose”. Jenny walks up to a table that has a box of tissues on it. Meanwhile mother is still coughing and agrees with Jenny, Yes, mummy has a little cold, yes, a runny nose? Jenny grabs a tissue and brings it over to her mother, meanwhile starting to cough herself.

In these reactions towards her mother’s pain and coughing the accent is not so much on parallel emotions, but rather on reactive emotions (although parallel emotions are not necessary absent—she ‘imitates’ her mother’s cough). Jenny is upset, attends to her mother, and looks at her with a concerned expression, thus showing both that she ‘knows’ that her mother is hurt and that she cares about this fact. Contrary to the way she reacted to her mother’s pain at 17 months, she stays focussed on mother and does not seem to be too upset to act. On the contrary, the reactive emotions—concern and compassion—are strongly present. In addition, Jenny does not have a problem in finding ways to act in favour of her mother. She tries to comfort her, tries to alleviate the pain and the respiratory distress mother is feeling by offering a tissue. What is important to note is the way in which Jenny’s mother responds. Though Jenny mother’s is in pain, she allows Jenny to comfort her and reacts pleased when she gets a hug.

She receives for both empathic reactions a code of 7 on the empathy scale (Zahn-Waxler et al., 1992). That means the highest level of empathy in combination with a high level of prosocial behaviour. Not only is Jenny full of attention and very concerned, but also she tries to comfort and help her mother as well.

Robin is 17 months old, when the experimenter visits Robin for the first time at her house. Robin and her mother are standing near the window, looking outside for a while. Then her mother puts Robin on the floor and while walking to the couch, mother is asked to pretend to hurt her knee. Robin is toddling about somewhat aimlessly, until she notices her mother is in pain. For a moment she looks at her mother with a concerned expression in her face. Then, however, her eye catches an attractive toy lying on the floor besides mothers’ foot. Robin goes to the toy and kicks it around the floor. She leans backward against a chair, opposite her mother, then stands up straight again. Next Robin glances at her mother once more, who is still in pain. Robin now turns her back towards her mother and walks away from her. At the other end of the room, she looks one more time to her mother and then Robin picks up a book and starts looking at the pictures, which she obviously enjoys doing. She sits behind an empty, plastic bin, which usually contains her toys, rattling with a red duck quietly, when suddenly her mother begins to cough extensively. Robin continues to rattle, until she notices an empty ice cube tray and starts hitting it with the duck. In addition she puts a lid on the duck’s head. Robin continues playing. When her mother starts coughing, she keeps on playing.
The same type of pattern is observed 1 week later when Robin and her mother visit the playroom. This is what happens. Robin goes behind the partition and starts walking around in circles, until she hears a loud bump. Her mother calls out that she hurt herself and Robin stops walking and focuses her attention on her mother. Robin looks a bit worried. She seems to be wondering what is happening over there. However Robin soon resumes her game and walks around the partition again, although she still is looking at her mother. However, with the next round Robin solely concentrates on playing again.

What is specific about Robin’s reaction towards her mother are two things. First that she does notice her mother in pain and that this does not leave her cold entirely. She looks at her mother with a concerned expression, or looks a bit worried. These are, we think, signs of parallel emotions. Although, Robin does not ‘imitate’ her mother, nor automatically match her mother’s facial expression, or ‘imitates’ her coughing, she does express the alarm that goes together with experiencing something that was not expected. This emotion, we might add, signify that she apparently understands that her mother hurt herself. However, and this is the second characteristic of Robin’s response, she does not act on her understanding. It is clear that she did not consider that her mother might need help, or that she should be the one to provide aid. Robin’s response is thus, we could say, minimally reactive. It is reactive only in the sense that she focuses—with some concern—on her mother. We would perhaps say that her concern was not strong enough, or alternatively that she was not able to regulate the type of feeling watching her mother in pain induced in her. By continuing playing she is able to ignore those feeling. Looking away or ignoring is a strategy one can use to deal with situations with a high emotional impact. Earlier we labelled this form of control as negative control. Whether one or the other interpretations is more accurate depends on whether we see Robin’s concern as a prime example of a parallel emotion or a (minimally) reactive emotion. In our view these types of emotions can also occur in a mixed form (perhaps they usually do). Understanding the pain of someone else seems to imply ‘knowing what it feels like’, but knowing what it feels like also implies an aversion for the state of pain. Genuine empathy, then, should thus yield reactive emotions as well. Or to put the same point somewhat differently: signs of pain can remind one of oneself experiencing pain, and—at the same time—evoke concern for the person in pain.

It is hard to display an accurate explanation for Robin’s behaviour. Is it a lack of concern or a case of being too overwhelmed by induced parallel emotions? If a child does not typically react, in the sense of paying attention and showing (some) concern—like Robin in the coughing episode—we might say that the child is low on concern (for whatever reason). We must also note, however, that the lack of helping behaviour can also be related to the way the person in pain (the mother) is likely to react. ‘Relational’ factors thus might clearly play a part. (We shall discuss those later on)

For the episodes where her mother hurt herself, Robin received a code 3 for empathy. This means that her attention is focussed on what is going on, but her level of concern is average. For her reaction on the coughing fit, Robin received the lowest
code on the scale being code 1. This means there is no observable concern or empathy present.

Can we observe a different type of reaction in Robin when she is 22 months? At that time the experimenter visits Robin at her house. She has grown a lot and now has a little baby sister. During the major part of the visit, Robin has a pacifier in her mouth and looks a little tired. Now and then she rubs her nose and fumbles her ear. Mother gets the same instructions as the previous time. While mother listens to the instructions, Robin is busy looking in her collection of books to select one she would like to read. Pretty soon she chooses the one she prefers and brings it to her mother. When Robin is nearly there, her mother hurts her knee. Robin stops and looks at her mother. Although she still is watching her mother for the main part of the hurting episode, Robin’s level of concern is quite low. When the pain decreased a bit, Robin’s attention shifts back to the book and she tells her mother to read her the story. A little later when mother has completely recovered, Robin sits on her lap and together they read the book Robin has chosen before. It is a book about animals on the farm and right after Robin’s imitation of a chicken, her mother has a coughing fit. Robin quietly continues glancing through the book, then looks up to her mother momentarily, but immediately reassumes looking at the pages. While her mother is still coughing. Robin points to a certain picture and wonders whether the animals in the picture are sheep. Mother does not answer and keeps on coughing. Robin is persistent though and now she directly asks her mother whether the animals are sheep or not. Finally the coughing stops and Robin gets her answer: “It’s a cow”.

The same codes were given at this age compared to the codes at 17 months for her reactions, being 3 for her mother’s pain simulation and 1 for her reaction to the coughing fit.

4. The role of control systems

We said that in order to arrive at prosocial behaviour persons will have to make use of ways of controlling their feelings. We distinguished between judgements and self-control, while we also noticed that self-control can take the form of positive control and negative control. We will again take a look at the empathic responses of Jenny and Robin in some of the remaining empathy probes in order to see what type of role—if any—the control system play in empathy.

Let us take a look at Jenny at 17 months again, this time in the home environment. Jenny is sitting quietly on the ground reading a child’s book. Her mother is standing close to Jenny. Leaning comfortably with her back against the couch, Jenny glances through the booklet, when her mother suddenly gives a scream and grasps her knee. Jenny looks up in a startled way, looks at her mother, than directly at the experimenter. It seems as if she tries to makes sense out of what is happening. Again she looks at her mother with a concerned expression, and automatically turns over a page in her book. Mother is still rubbing her knee, her face twisted with pain, and now Jenny resolutely puts her book away and approaches her mother on her hands and knees. She keeps on looking at her mother with a concerned expression, until her
mother recovers. It seems as if Jenny is figuring out what to do and cannot come to a solution.

This example illustrates, we think, the role of judgment in empathy. Jenny obviously feels concern for her mother. But she is not altogether sure, so it seems, whether she should provide help. She, for instance, looks at the experimenter, as if to seek guidance, or to see whether the experimenter will provide comfort. As this is not happening, she apparently decides that she has a responsibility and approaches her mother, though she still is not sure—so it seems—what to do exactly.

When Jenny is 22 months old, she is in the playroom with her mother for the second time. While the experimenter gives instructions to her mother concerning the next activity, Jenny is toddling about near her mother. Suddenly Jenny is startled by a cry from her mother; her mother hurt her finger. Jenny looks upset and moved by the pain her mother has, and she slowly backs up, meanwhile looking at her mother and fumbling with her sweater. Then she backs up even further, until she is standing with her back against the opposite wall. From there Jenny looks at her mother with an alarmed expression on her face and fiddles some more with her sweater. Then she starts walking towards her mother, who is still in pain, while asking: Give a kiss? Then Jenny runs to her mother and gives her mother a big hug. That makes the pain disappear.

In this example we observe again the role of judgement in empathy, but the role of ‘self control’ is prominent as well. Jenny first is alarmed by her mother’s crying, and seems overwhelmed by the sight of so much pain. She seems reluctant to act, slowly backs up, and fumbles her sweater. These are instances of negative control: getting away from the emotion provoking stimulus and focusing on other activities. Still, she does remains focussed on her mother. She seems to look for a clue or an invitation to do something. Apparently she finds a form of contact, which ensures their connectedness. This allows her to be moved by feelings of sympathy. These reactive emotions do not seem to stem solely from feeling of care and concern, but also seem to depend on whether she feels welcome in providing aid. And this in turn depends on whether Jenny’s mother shows she is open to being cared for. Whatever the cause, Jenny’s feelings change from fear to sympathy, which in turn initiates her prosocial acts. By this form of positive control Jenny is able to comfort her mother.

Interestingly, this example also illustrates the role of parallel emotions and those of reactive emotions. We can observe that the sight of distress in mother causes distress in Jenny as well (parallel emotion). Controlling this emotion leads her to look away, to play with her sweater. However, she is concerned as well (reactive emotion). Eventually, her concern leads her to approach mother.

Jenny’s ability of (positively) controlling emotions is also apparent in situations where temperament is measured. We will discuss temperament more extensively in the paragraph on personality factors. Here we already want to highlight the fact that Jenny was capable to suppress her feelings of fear in that situation as well. So, self-control appears to be stable over different situations.

We now turn to Robin once more and will take a second glance at her in one of the empathy probes. She is 17 months and is toddling about somewhat aimlessly, until
she notices her mother is in pain. For a moment, she looks at her mother with a concerned expression on her face. Then, however, her eye catches an attractive toy lying on the floor besides mothers’ foot. Robin goes to the toy and kicks it around. Then she leans backward against a chair, opposite her mother, then stands up straight again. Next, Robin glances at her mother once more, who is still in pain. She then turns her back towards her mother and walks away from her. At the other end of the room, Robin looks one more time to her mother and picks up a book and starts looking at the pictures, which she obviously enjoys doing.

From this example it is apparent that Robin is experiencing ‘negative’ feelings. She is obviously upset about the fact that her mother is in pain. We can interpret these feeling as parallel, in the sense that she experiences ‘something’ of the pain of her mother. The sound of her mother’s cry may induce in her similar feelings. Robin tries to suppress these feeling by attending to objects of her interest, and by not focussing upon mother and her pain. This is a form of negative control. There are no positive forms of control, that is forms of control, which lead her to approach her mother, or at least looking more closely what is the matter with her.

We could, however, interpret Robin’s behaviour differently. Another possibility is that Robin does feel concern. She would then experiences reactive emotions. However, she does not seem to know how to act on those feelings. This interpretation seems inadequate though. The fact that she is not in any way inclined to act upon those feelings, suggest that she is primarily experiencing ‘parallel emotions’. Reactive emotions after all, tend to focus attention on the pain and need. When alarming noises catch one attention, feeling of care and concern prompt the empathic person to investigate what is the mater. Robin looks at her mother when she hears her scream. But although this is a cause of concern (she looks concerned), she does not focus her full attention on mother, something that would be typical for sympathy and care. Instead of ascribing reactive emotion to Robin, we should perhaps say that she ‘caught’ feeling from her mother, which apparently makes her feel unhappy. So she tries to suppress those feeling by concentrating upon other activities, actively ignoring the pain of mother.

It is of course, difficult to explain why Robin did not respond prosocially towards her mother. The most obvious explanations seem to be that Robin simply is not equipped to act prosocially. This, however, even if true, fails to capture the mechanism, which Robin lacks. Does she judge the situation differently from Jenny? Or do certain prosocial feelings simply do not come up (yet); feeling which subsequently might override the unpleasant feeling she caught from her mother? In the situation where fear was measured, Robin seemed overwhelmed by her feelings of anxiety and unable to do what she was asked to do. This could be indicative of her inability to positively control her feelings. In our research the relationship between mother and child was a topic of research as well. Was the type of attachment of Robin to her mother different of that of Jenny and could that perhaps explain the difference in empathic reactions? Or is temperament a relevant in this context? We will discuss the role of those factors later on. For now, we must conclude that the difference between Jenny and Robin is primarily a matter of the presence of reactive emotions.
5. Personality factors

5.1. Temperament

Several personality traits like compliance, temperament, and also traits form the big five, in particular agreeableness (sociability) and extraversion are relevant for explaining the stable aspects of empathic behaviour in young children. In the present study we have confined ourselves to temperament and compliance. These traits have been studied in relation to empathic behaviour with toddlers before (Van der Mark, 2001; Van der Mark, Van Ijzendoorn, & Bakermans-Kranenburg, in press a and b). These personality traits lend themselves to illustrate how we conceive the relation between personality factors and empathy in general, a relationship that is easily misunderstood.

Temperament is taken here as a stable style of communicating and acting characterized by a position on a temperamental fearfulness/inhibition continuum. We stressed earlier that personality factors could be considered (explanatory) components of empathy if these factors are able to explain intercontextual stability in empathic responding. This implies that it is necessary to provide some clues that the proposed factors are conceptually related to the elements that characterize an empathic response (e.g. the psychological elements or the control systems). Otherwise the proposed factor cannot be considered as components of empathy that are able to explain particular empathic reactions. It is also necessary to provide some proof that the proposed factors are stable over various situations, situations that do and do not involve the need for an empathic response. Otherwise there is no reason to see those factors as part of someone’s personality. Before we are in position to illustrate the role of temperament in empathy, we are thus faced with the task to explain in general that temperament is related to empathy in the right way.

It will be clear that we will not be able to provide a full-fleshed defence here. We can, however, point to our reasons for thinking that temperament (defined in terms of fearfulness) can be considered an explanatory element in empathy. Temperamental fearfulness is, according to Rothbart and Bates (1998) related to the ability to control or suppress a predominant response. In our words this means that temperament is connected conceptually with positive control. This in turn implies that temperament can be viewed as a component of the control systems that are related to empathy. In the longitudinal research Van der Mark (2001) has conducted, there is clear evidence that temperamental fearfulness is—generally speaking—stable over various situations. Additionally, Van der Mark showed a positive correlation between empathic behaviour and temperamental fearfulness, which indicates that part of the stability in empathic responding is due to temperamental factors.

Now let’s take a closer look at the way in which temperamental factors have an impact on the way in which Jenny and Robin respond to perceived pain and need. In line with the approach of Kagan, Reznick, and Gibbons (1989) and Kochanska (1995) temperamental fearfulness is measured by observing the amount of fear for unfamiliar things. Seven somewhat scary things were shown to the child, who was encouraged to take the items and explore them. The items concerned included
among others an oven-glove representing a crocodile, a copy of a blood-pressure meter, a rubber bird of prey, a loud drum and a mask depicting a monster. The extent to which the child was afraid to touch or to take the toys, the amount of times she sought proximity of her mother and refrained from exploring, and the duration until she started playing determined the level of fearfulness. The highly empathic child (Jenny) had an average level of fearfulness at 17 months of age, which had decreased at 22 months, while the low-empathic child (Robin) at 17 months was only slightly fearful, but at 22 months showed a high level of fearfulness. We will take a closer look at how both girls reacted to the scary items at 22 months, since the difference between the two girls at that age was so prominent.

Jenny immediately took most of the items offered to her and only in two cases she needed one extra encouragement. E.g. when the bird was offered she says: “It is a bird”, and she walks directly towards the experimenter, takes the bird and starts playing with it. When the experimenter banged the drum, which produced a loud sound, Jenny runs forwards and bangs on the drum as well. Between the bird and the drum Jenny walks to her mother. When the glove and mask are offered, Jenny seeks some support from her mother by standing next to her. This could be an indication of feelings of slight fearfulness. Initially Jenny looks at the glove and the mask, but when the experimenter suggests that Jenny tries to take the items she comes forward and takes them.

Robin did not touch the items, even after she received three encouragements and remained in the close proximity of her mother throughout the whole episode. Being near her mother could not help Robin to regulate her feelings of fear, which resulted in constant withdrawal and refrain from acting on request. When the first item is offered Robin makes two steps towards the experimenter, but suddenly she stops and steps back towards her mother, where she remains. When the experimenter approaches Robin with the stethoscope, Robin climbs at her mother’s lap. She stays there for rest of the episode with her back turned towards the experimenter, although sometimes she turns her head to see what is being offered.

The relative fearlessness observed in Jenny and the high level of fear Robin displayed may explain respectively self-control versus the lack of emotion-regulation as in Robin’s case and might in turn offer an (partial) explanation for Robin’s low scores on the empathy scale.

5.2. Compliance

In her longitudinal research, Van der Mark (2001) included measures of compliance and related these to empathy in order to see whether a disposition to comply with demands explains empathic behaviour. Again, we shall have to make clear why we think that compliance might be an explanatory component of empathy. The conceptual relationship between compliance and empathy, again, will have to be established in terms of the control systems. A connection between those factors is easily conceived. After all, the ability to comply with demands (‘do’ and ‘don’t’ situations) refers to the ability to regulate behaviour in accord with external standards. A child that is compliant is likely to possess that ability. However, is that
ability stable? Is it something that can be considered a part of the child’s personality (something a child is motivationally committed to) or is compliance always situational? And if it is a matter of personality, does it explain part of the regularity in empathic behaviour?

Compliance appeared moderately stable over situations (Van der Mark, Bakersmans-Kranenburg, & Van Ijzendoorn, in press a and b). There is thus reason to think of compliance as a characteristic of the child, though we must add that the contextual variation of the measured situation was not optimal. Mother was a constant factor in the situations where compliance was measured; so this outcome is certainly no hard evidence. Furthermore, no significant associations were found between compliance and empathy for the mother. So compliance does not explains stable patterns in empathic behaviour. This indicates that compliance is not in an obvious way related to empathy. Perhaps we must look at compliance and empathy as different sides of the same moral coin. It has been suggested that empathy is basic to a moral orientation that centres on relationships and care, whereas the experiences of rules and demands is associated with a moral orientation of rights and justice (Gilligan, 1987; Gilligan & Wiggins, 1987). The finding that empathy and compliance are not related in early childhood is in line with those associations. Compliance, according to this picture, is a general ability, but is not associated with the types of control that is relevant for empathy. At most, this form of compliance could be relevant in the situational form (Kochanska, Coy, & Murray, 2001). However, situational compliance is by definition not a personality factor. As compliance plays no explanatory role in empathy, we will not provide examples of the how compliant Jenny and Robin are.

6. The impact of the relationship: attachment and parenting

6.1. Attachment

Quality of attachment was assessed at both 17 and 22 months with the Strange Situation Procedure (Ainsworth, Blehar, Waters, & Wall, 1978), a laboratory procedure with three mildly stressful components: the confrontation of the child with an unfamiliar adult, an unfamiliar environment, and two short separations from the mother. The child’s pattern of attachment behaviour is classified as insecure-avoidant (A), secure (B), or insecure-resistant (C). Insecure-avoidant children shift their attention away from their distress and from the mother and seem to remain focused on exploration. Insecure-resistant children display attachment behaviour and seek proximity, but at the same time resist contact with the mother, and do little exploring. Secure children strike the balance between exploration and attachment behaviour: They seek contact with the parent when distressed, but are readily reassured and resume exploration.

Jenny and Robin have different attachment classifications. We will describe first how they differ in behaviour during the reunion episodes of the Strange Situation. At the age of 17 months, Jenny and her mother encounter the Strange Situation for the
first time. When the first reunion begins, Jenny is sitting on the floor and plays with a plush dog. Jenny looks at the door with a smile, when she hears her mothers’ voice. When the door opens and her mother enters the room, Jenny is standing up while holding the dog and starts babbling. She is facing her mother, but does not seek any proximity. While showing the dog to her mother, she continues babbling. After approximately 15 s Jenny turns around and walks to a rack with dolls. She takes one doll out of the rack and gives it to her mother. After the brief separation, which has induced some stress for Jenny her mother listens in an attentive way and Jenny responds by offering the doll. This is an example of a well-attuned communication pattern, which might have a positive influence on empathic responses by Jenny.

Before the second reunion Jenny is standing facing the door, when she hears some noise in the corridor outside. When the door opens and Jenny sees her mother, she turns her back to her mother and bends over to pick up a toy. Jenny shows it to her mother and babbles. Although Jenny does not look at her mother, she does look at her. Jenny is preoccupied with the toys and only makes verbal contact with her mother. After approximately 25 s Jenny looks at her mother, as her mother sits down in a chair. Jenny is classified as B1, meaning she is securely attached but at the same time shows some avoiding behaviour.

At 22 months, when attachment is assessed again, Jenny is playing with a puppet the moment her mother enters the room for the first reunion. The moment Jenny sees her mother she smiles and shows her mother the frog. Thereupon Jenny walks up to her mother and explains to her how a dog barks. When that conversation is finished Jenny looks for another toy to play with.

This time Jenny is classified as B3, which is the most secure form of attachment. At the onset of the second reunion Jenny looks up when the door opens. The moment that Jenny sees her mother she says: “Hello”. She runs to her mother with her arms stretched out. Her mother embraces Jenny and they give each other a cuddle. Then Jenny tells her mother about the toys, while walking towards them. Again we see a communication pattern signed by empathy and warmth, which again may stimulate empathy.

When Robin is 17 months old, she and her mother come to the institute to take part in the Strange Situation. At the beginning of the first reunion Robin looks at the door when she hears the voice of her mother. The moment the door opens and Robin sees her mother she quickly walks up to her. However when her mother comes further into the room, Robin stops, turns around and takes a few steps away from her mother; a clear example of avoidance. Then Robin stands still and throws the plush dog she was holding, on the floor. After this Robin glances for a moment at her mother and then redirects her attention back to the toys. Her eyes go back and forth from the toys to her mother one more time and then Robin continues to play.

At the second reunion Robin walks towards the door when she hears some noises coming from that direction. As soon as the door opens and Robin sees her mother, Robin turns around and walks away from her mother, with a smile on her face. Robin says something about the toys and turns around again, towards her mother, who has just followed Robin with a handkerchief, to wipe Robin’s nose. When her nose is clean and her mother walks up to the chair, Robin follows her and starts
crying quietly. Once she has reached her mother, Robin walks away from her and remains standing at the other end of the room. This is not just avoidance, but simultaneously asking attention and proximity through crying. Robin is not just avoidantly attached but by showing contradictory behaviours (crying and avoidance) also disorganized. Robin gets an attachment classification of D7/A2. Apparently Robin feels sad because her mother does not focus on Robin’s feelings of fear, but on her runny nose. Robin responds by sobbing and turning away. With respect to empathy, Robin learns that concern and care do not necessarily follow upon feelings of distress.

When Robin is 22 months old attachment is observed once again. As soon as her mother comes in, Robin bows her head and looks down at the toys. Robin smiles and says that she is playing. That is the only contact Robin makes with her mother during the first minute after the reunion, because after saying what she was doing she keeps on playing without looking up.

When the second reunion is about to begin, Robin discovers a poster on the wall depicting Ernie from Sesame Street. The moment her mother enters the room Robin points towards the poster and explains that it is Ernie in the picture. Though she briefly glances to her mother, she continues pointing at Ernie. While mother takes a seat Robin walks to the stranger and tells her about Ernie. So, shortly after the reunion, Robin does not seek any contact with her mother, but with the stranger; an indication of disorganized attachment behaviour (Main & Solomon, 1990). Next, Robin walks over to the poster and, when the stranger in the meantime leaves the room, she then asks her mother where the stranger is going. This is the first contact Robin initiates with her mother since the reunion.

Again this is an avoidant attachment relationship; the score for disorganized behaviour (5) is lower than it was at 17 months, therefore the classification is insecure avoidant with the alternative disorganized, A1/D5. It seems that by now Robin has given up on expecting any concern and sympathy from her mother, because for the most part she ignores her mother and focuses on other things in the room.

6.2. The impact of attachment relationship on empathy

Apparently attachment is of influence on the exhibition of empathic, prosocial behaviour. In the empirical study (Van der Mark, Van Ijzendoorn, & Bakermans-Kranenburg, in press a and b) empathy with the experimenter was also measured. We then see that both girls show almost equal, average levels of empathy towards the experimenter. Surprisingly, Robin’s reactions were on the whole slightly more empathic. Jenny was moved by what happened to the victim and paid attention during the whole episode, but refrained from comforting behaviour. Jenny received score 4 for her empathic reaction at home at 16 and 22 months and score 3 at 16 months at the playroom. At 22 months Jenny got a score as low as 2 for her empathic response in the playroom. This might indicate that within an attachment relationship children experience stronger prosocial emotion and are more inclined to help than in case an unknown person is in distress. This is probably related to the
fact that young children within a secure relation are more likely to judge that they should provide help and are probably less reluctant to do so.

Robin, however, also paid attention to the victim whereby she received score 4 for all empathy probes (at age 17 and 22 both at home and in the playroom). As we can see, the low-empathic girl showed slightly more empathy towards the experimenter than for the mother. The highly empathic girl shows increasing empathy with age towards the mother and slightly decreasing empathy towards the experimenter.

Because there is no relation with the experimenter, parallel feelings of distress are probably less threatening for Robin and are therefore less suppressed. Based on the fact that the victim was unknown Jenny might have judged the need to offer comfort as less stringent as with an attachment figure, in this case her mother. We should add that these interpretations are tentative.

6.3. Parenting: sensitivity and discipline

Both mothers were coded as highly sensitive towards their daughters, although there was a slight difference when the girls were 22 month of age. Jenny’s mother at this time scores somewhat higher on the sensitivity scale of Ainsworth. The fact that Robin’s mother showed highly sensitive behaviour, while Robin was classified as insecure does not conform to the general picture, which tells that sensitive parenting leads to (or at least correlates which) secure attachment.

However, there were some differences between the mothers in disciplining styles. Jenny’s mother uses strict discipline in combination with induction, that is, explaining and showing the consequences of behaviour. Robin’s mother tends to use more strict discipline, such as using physical obstruction and talking in a punitive way, although every now and again she does explains prohibitions. It could be, then, that insensitive forms of disciplining dampens the possible modelling function a sensitive approach may have on empathy. If Robin would have been disciplined in a less strict manner which would more in tune with the sensitive behaviour her mother shows in other situations, it might be easier for the child to use the maternal sensitive behaviour as a model for her own empathic behaviour, and to show helpful behaviour at the moment when this is ‘called for’. The fact that Robin shows slightly more empathy for the stranger (with whom she has no caring relation containing conflicting appeals, and is therefore experienced by Robin as less threatening) supports these hypotheses.

7. Conclusion

We have presented an integrative model on empathy and used observations of the empathic acts of young children to illustrate the viability of the model. We attempted to look at empathy and its short-term development from a perspective of communication. This led us to emphasize the role of relationship as well as interactive patterns. Understanding empathy is not solely a matter of understanding individual propensities, but requires that one situate those abilities within a context.
In this paper we tried to picture the role of crucial personal and relational variables, which play a differential part when it comes to parallel and reactive responses to signs of pain and need. This is of course only the beginning of a theory of empathy and its development. A theory of empathy involves the process of empathy, as well the causal antecedents of empathy’s development. Arriving at such a theory requires at least three steps. First of all, we need a general picture of the way in which various variables change in the course of long-term development and in which type of context this change occurs. In our paper it was impossible to make such observations, for we used examples that were based on a 6-month time-span in only two different contexts. However, using the same type of variables on large samples with a greater variety of observations can yield insight into the elements that change in empathic reactions. We must stress, however, that documenting the differential impact of the distinguished factors, as separate factors, will in all likelihood be difficult or even impossible. The distinguished factors, for all we know, do not have to operate in solitude. Their effect may depend on other variables. So there is the need for the study of effects of interaction. Secondly, more systematic and stringent forms of observation should be used. In hindsight we can say that we need to distinguish more systematically the various forms of emotions as well as the various form of self-control. There is, furthermore, the need for developing categories that allow for observation the role of judgement as a core element in empathy. Most importantly, however, is the need for the development of observational categories that concern the target agent in empathy. Thirdly, the assumption of the communicative approach in liaison with outcomes of observation and other types of research should provide clues concerning the mechanism of development, which can be captured in the form of hypothetical statements. We suspect that various mechanisms and therefore various developmental patterns are to be observed. The development of empathy is in all likelihood a many-faced phenomenon. We expect that the core differentiation can be found with the varying nature of relationships. Empathy in the context of close relationships will probably differ from empathy as it relates to strangers. Empathy in intimate relationships thrives on particular concerns and knowledge, whereas outside those relationships it rests on more general sympathies, concerns and beliefs. However, as empathy relates to need for affiliation, empathy itself is an important factor in the genesis of intimacy.

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