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## The Development and Function of Interests During the Critical Transition from Home to Preschool

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For most children, beginning school is an important developmental step. Bronfenbrenner (1979) speaks of an “environmental transition,” where the child moves from a familiar world to a world that is unknown. This new world involves increased social contact with teachers and peers, new conditions in the physical environment (places, rooms, physical objects), and modified norms and role expectations. Increased contact with peers allows for new friendships. Teachers make demands on the child that require an extension or modification of the child’s previous conception of his or her role. It seems reasonable that so many changes in types of interaction with the surroundings could lead to feelings of anxiety in the child. It is with good reason, then, that the terms *critical life experience* (Filipp, 1981) and *critical transition*, in the sense of the “organismic developmental approach” (Kaplan, Wapner, & Cohen, 1976), have been used to designate such a change.

In order to adapt adequately to the demands of this new setting, the child must develop coping strategies. Generally this leads to an extension of competence and determines how the child engages with his or her surroundings. This lays the foundation for a reorganization of what is called herein a child’s person–object relations. Young children, however, are quite diverse in their willingness and ability to undertake such

adaptation. Differences among children with respect to adaptation might be attributed to several factors. Two of the most critical factors are previous experiences with the environment, and the strategies for dealing with new situations that have developed as a result.

Research in the fields of curiosity (Voss & Keller, 1983; Keller & Schneider, *in press*) and attachment (Papousek, 1984) has shown that a child in an unfamiliar situation feels more comfortable and is more likely to exhibit exploratory behavior when there is a personal "security base" from which to operate (Ainsworth, Blehar, Waters, & Wall, 1978). The security base can be the presence of a trusted person, or special objects with which the child has developed a special relation (e.g., a doll, a certain toy, or a favorite blanket; Brody, 1980; Passman & Weisberg, 1975; Winnicott, 1953). The trusted person or treasured object can give the child a secure base for interaction. The child can then return to that base if the engagement with unfamiliar surroundings proves too difficult or evokes feelings of anxiety that are too strong.

In this chapter, we take the position that the child's interests often represent an anchor that helps in managing the critical transition from home life to preschool or kindergarten. The child's interests delineate the types of objects and possibilities of action with which the child is familiar and feels competent. Through these feelings of familiarity and competence, the child is able to bridge difficult social situations by commanding the attention and admiration of other children and arousing their curiosity, thereby establishing new social contacts. Childhood interests, therefore, may be described as independent variables that help to explain a more or less successful adaptation to a new life situation.

It is possible to reverse this theoretical relation. Interests might then become the dependent variables, with their form and strength being influenced by the new experiences and action possibilities found in the preschool. This approach opens important avenues of research in the fields of developmental theory and education. The question arises, for instance, whether and to what extent the modification of interests aids or hinders overall development of social behavior or cognitive abilities. Related to this is the question of how continuity or discontinuity in interest strength can be evaluated in terms of how well a child manages the critical transition. On the one hand, high stability over time may indicate successful management of the critical transition, especially when interests continue to develop and lead to increasing competence. On the other hand, stability may indicate fixation or stagnation, and might even signify an

inability to profit from the stimulation of the new environment, to investigate new types of objects, and to extend personal competencies.

This chapter describes an exploratory study based on data from individual cases that attempts to shed light on the development of interests during the transition from home to preschool. Among other research questions, this study attempts to document the importance of the child's "object relations" (interests) in managing critical transitions, and to analyze how the new life situation effects the origin and early development of interests. The theoretical background for this research consists of a "person-object conception" of interest. In the following, the discussion focuses first on this conceptualization of interest, then describes the purpose, methodology, and selected findings of the exploratory study.

## THEORETICAL CONSIDERATIONS

### Interest as a Specific Person-Environment Relation

The present conceptualization of interest is based on theoretical considerations of the origin and effect of person-environment relations. The authors share the view proposed in the organismic developmental approach, a view also expressed by Bronfenbrenner (1978a, 1978b, 1979) and Wozniak (1986), that the central unit of analysis in psychology is the person-environment system. Thus, it is assumed that individual development is determined largely by the quality and course of a person's relation to the social and physical environment. Continual interaction with people, objects, events, and areas of subject matter found in the immediate environment leaves behind traces in both the person and the environment. Each experience adds to and differentiates a person's store of knowledge. The person acquires cognitive representations about the "nature of things" (declarative knowledge) and about action possibilities (procedural knowledge). Person-environment engagements thereby shape a person's cognitive structure. This includes the development of values, attitudes, motivational orientations, and other emotional components closely associated with cognitive processes.

A person experiences the environment as a structured whole. In the course of an individual's development, experiences are organized into categories and classes of categories, which are themselves subject to reorganization depending on their meaningfulness to the person. Thus, each person builds unique, subjective cognitive structures. But different individuals also acquire very similar cognitive structures simply because

similar realities and interpretations occur within the cultural context. The cognitive structures reflecting these aspects of the environment are objective in the sense that they are the same across individuals. This, of course, still allows for the many idiosyncratic structures that are specific to each person (Renninger, 1990).

Regardless of the exact way a person differentiates and organizes the content of his or her surroundings, it seems safe to assume that individual categories vary in subjective importance across different situations and/or different phases of development. The person-object theory of interest assumes that, in the course of development, the person develops a special relation to certain parts of the environment, and that this relation has certain characteristics. Such pronounced person-environment relationships can be based on a wide variety of subjective experiences. The phenomenon of attachment, a common example of a special relationship with another person, can be extended to include concrete objects in early childhood (Winnicott, 1953). The special relation between a person and a material object judged to be of great personal value by the individual or by society is generally referred to as ownership (Furby, 1978a, 1978b, Stanjek, 1978, 1980).

Interest is a unique relation between a person and an object, or object domain, found in that person's environment. This relation must be of some duration and does not refer to "one-time" unrepeated forms of engagement. A more precise theoretical description of the "interest-oriented" person-object relation (P-O relation) centers around three aspects: (a) the object of interest, (b) the structural components of interest, and (c) the characteristics of the interest-oriented P-O relation.

### The Interest Object

In the present theory of interest, three conceptual levels of objects are distinguished: object domains, objects of interest, and reference objects. The levels differ from one another in their degree of specificity.

The most general level involves *domains* of interest, such as "music," "sports," or "travel." School content areas, such as math, biology, or history are also interest domains.

At the next level are *interest objects*, also referred to as "objects of interest." An interest object consists of that part of an entire interest domain that a particular person at a particular time includes as an individual interest. Objects of interest are person-specific. Although two

different people may enjoy the same things and action possibilities within a certain domain and therefore have very similar interest objects, each individual will have had some unique experiences, thus excluding the possibility of their interest objects being absolutely identical.

Someone who is interested in "sports," for instance, is very unlikely to be interested in or even aware of every aspect of every sport on earth. Rather, one person might be interested in performing non-team sports that require good physical condition (marathon running, cross-country skiing), whereas another person might be interested in watching professional team sports, and a third person might be interested in "outdoorsy" activities such as fishing and hunting. In each case, the totality of all the individual's choices of concrete objects, forms of activity, and possible topics, chosen from among all the possibilities in the domain "sports," represents that individual's object of interest. Thus, the interests just described all come from the same domain but represent three distinct interest objects, and, hence, three distinct P-O relations.

Finally, the third level involves the particular, concrete things used when engaging in activity with the object of interest. These are referred to as *reference objects*. Going back to the preceding examples, a person interested in non-team sports might have running shoes, cross-country skis, and a stopwatch as pertinent reference objects, whereas someone interested in watching professional team sports might have binoculars, season tickets, and subscriptions to sports magazines, and an outdoorsy type might have fishing poles, a tent, and a favorite hat. It should be noted that reference objects are not the only elements found in a person's interest object. Action possibilities and topics are found along with reference objects. The interaction among these three types of elements or structural components in the formation of an interest object is discussed more fully in the next section.

In what follows, the lone use of the terms *object*, or *interest object*, refers to the person-specific form of an interest (i.e., to the second conceptual level of objects). However, it is important to clarify some further matters relating to these interest objects. First, objects of interest are based on more than just concrete reference objects. Abstract or ideal elements, (e.g., symbolic representations of things), concepts, and events, information, and questions of a scientific nature can all be part of an object of interest. Second, insofar as they function as interaction partners, people

are not regarded as objects of interest.<sup>1</sup> Third, even though one and the same domain can be involved in the formation of completely different P-O relations in different people, these different relations can all be described and explained in a consistent manner on the basis of general rules.

The manner in which an interest object is understood and, through repeated engagements, elaborated upon is a function of several factors. Not all of these factors are based within the experiencing person. Although subjective interpretations are of primary importance in the formation of subjective knowledge about a domain (in other words, in the formation of an interest object), an exclusively individualistic-cognitive interpretation would ignore the fact that other "outside" factors have an impact on the structure and quality of an object of interest. This becomes especially evident in the case of "cultural objects" whose meanings have evolved and become consolidated during the course of society's development (Boesch, 1982; Csikszentmihalyi & Rochberg-Halton, 1981). The cultural meanings of objects are passed from generation to generation through education and socialization, and contribute to a common understanding of the objects. In fact, tacit agreement usually exists within cultural groups about the utility, value, and meaningfulness of cultural objects (e.g., musical instruments, jewels, or most household items). Because most objects of interest are also cultural in nature, a comprehensive characterization of an object of interest must also include an analysis of its cultural meanings (Fink, 1989; Renninger, 1984, 1989).

Thus, two factors determine the structure, meaning, and environmental placement of an object of interest: (a) the individual (subjective-conative) understanding of an object's meaning; and (b) the culturally determined (objective-denotative) meaning of an object. Both

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<sup>1</sup> This conceptualization of interest primarily addresses relations with non-personal objects and does not directly deal with person-person relationships. Nevertheless, knowledge about human experience and behavior can become a person's object of interest, as in the case of a psychologist who is intensively involved in the study of a particular emotional disturbance. Differentiation of personal and material units in the environment is not necessarily clear-cut in every case. On the one hand, there are situations in which physical objects can be reinterpreted as personal units, such as when children play pretend (animism). On the other hand, people are often analyzed with respect to their existence as physical objects (e.g. in the behavioral sciences). However, according to Fink (1989), this problem can be mitigated by considering the type of involvement ("personalistic" versus "nonpersonalistic"). Living beings (animals and humans), for example, are only objects of interest when involvement with them can be described as nonpersonalistic.

interpretations can be applied to the development of a person's P-O relations.

### Structural Components of the Interest-Oriented P-O Relation

P-O relations may be analyzed in terms of both process and structure. These represent two theoretical perspectives and are associated with two levels of analysis. The first level deals with the internal and external interest-oriented actions related to an object. At this level, interest is understood as a state that represents the actualized relation between a person and an object in a specific situation at a certain time. The second level of analysis interprets interest as a persisting disposition (Krapp, 1989; see also Krapp, Hidi, & Renninger, this volume).

As a dispositional category, interest may manifest itself in subjective representations that are emotional, value related, or cognitive in nature. Cognitive structures would include stored memories of experiences with the object and knowledge about possibilities of action that the person has already realized or intends to realize in the future (Prenzel, 1988; Renninger, 1989, 1990).

Each interest has a more or less distinct structure. The complexity of the structure can be modified by eliminating elements (substructures, components), by adding elements, or by processes of incorporation and exclusion (Fink, 1991). This is especially true during the early developmental stages of an interest. We distinguish between simple and complex structures of an interest-oriented P-O relation. Complex P-O relations exhibit a predominantly hierarchical structure that is capable of internally integrating numerous simple P-O relations. Simple P-O relations, as well as the lowest level of a complex P-O relation, can be broken down into individual components. These basic structural components include (a) reference objects, (b) activities (i.e., action possibilities), and (c) topics.

*Reference Objects.* Reference objects (concrete objects) are essential elements for most P-O relations (e.g., books for the object domain "literature"; or instruments, sheet music), or records for the object domain "music"). In empirical studies, reference objects serve as landmarks for charting the boundaries and content of subjective domain perception. However, these objects are more than empirical indicators for determining the structure of individual P-O relations. In many cases, they represent the primary content of an interest (e.g., the collecting of certain things). Furthermore, the objective characteristics of an interest

object often have a direct influence on a person's engagement with it. For example, an engagement may be limited by the material characteristics and/or the socioculturally determined purpose of the interest object (e.g., artistic work that involves valuable materials).

*Activities.* A second structural component is the type of activity associated with the object of interest. Such activities include not only observing, perceiving, manipulating, and exploring the different characteristics of an object, but also changing the object or making the imagined object real. A further important activity is acquiring and processing information about the object or activities associated with it (e.g., searching for relevant sources of information). Social contacts are also frequently included within object-related activities, particularly when the P-O relation can be realized only within a group (e.g., games involving social interaction, all forms of competition, the performance of music), or when the exchange of knowledge and experiences with others is important and pleasant.

*Topics.* The present and future forms of an activity that a person undertakes with an object depends, in large part, on a person's goals, topics, and questions regarding the object (Renninger, 1989, 1990). Topical categories often serve to guide interest-oriented engagement and thereby influence the specific course of events involved in an activity as well as its overall nature.<sup>2</sup> A teenager's interest in computers will exhibit a completely different structure for activity with a prepackaged computer game than for activity with a homemade toy robot, even though the interest involves the same reference objects (e.g., hardware, programs) and competencies (programming).

#### Special Characteristics of an Interest-Oriented P-O Relation

Although the basic structural components of an interest-oriented P-O relation are important landmarks for the empirical reconstruction of an interest, they give only an incomplete and approximate picture of the theoretical construct. Further characterization is possible only at the level of theoretical definition. Among other things, this would involve a description of the characteristics of the interest-oriented P-O relation.

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<sup>2</sup> In later developmental stages, interests are more likely to be topical (study interests, or text-based interests, see Schiefele and Hidi Anderson, this volume) than they are to be linked to concrete objects.

The following section, therefore, involves the specific characteristics of a fully developed interest that can be determined by a person's experience and behavior. Thus, the present chapter ignores the fact that during the course of individual development new forms of interest are continually evolving from previous forms and that a precise distinction between precursor and fully developed interest is difficult.

*Selective Persistence.* In the present context, the term *persistence* means that interest-oriented action is not a one-time or short-term affair. Rather, it is characterized by a certain amount of stability. Strong individual interest elicits repeated engagements with the object. Thus, a child's fleeting, curious attention toward an object in the environment cannot be classified as interest unless that attention also can be observed more regularly over time.<sup>3</sup>

As an indicator of interest, the persistence of an action has meaning only in relation to the persistence of other actions and in terms of situational conditions. Usually it is not difficult to recognize different degrees of persistence in intraindividual comparisons of actions with respect to particular objects and topics. In empirical investigations designed to monitor the strength of an interest over time, the degree of persistence may be operationalized as the *frequency* of engagement within a particular object domain. A more precise analysis might compare the frequency of actual P-O engagement in a particular domain with the frequency of possible opportunities for engagement in that domain. Within a single incident of interest-based activity, the *duration* of engagement can serve as an indicator of persistence. Defining persistence as repeated engagement with an object and individual willingness for long-term involvement with that object implies choices. From an array of action possibilities and objects, an individual must choose those that best match his or her interests. Thus, persistence of P-O relations develops only through a selective process (see the chapter by Prenzel in this volume).

*Value Orientation and Self-Intentionality.* Objects, activities, and topics associated with an interest are experienced as important and meaningful because they are closely related to personal attitudes and

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<sup>3</sup> This view of interest differs from research conducted in the field of interestingness (cf. Anderson, Shirey, Wilson, & Fielding, 1987; Hidi, 1989; Hidi & MacLaren, 1987), in which a child is interested in or reacts predictably to an interesting mystery or an unrepeating event such as an interestingly written text.

values. Linking personal interests to values and attitudes is common to older and more recent theories of interest (e.g., Dewey, 1913; Hidi & Baird, 1986, 1988; Kerschensteiner, 1926; Lunk, 1927; Renninger, 1989, 1990; Renninger & Leckrone, 1991; Renninger & Wozniak, 1985). This does not mean that a person is necessarily aware of personal value judgments, or that a reflective judgment is made prior to interest-based activity. However, the more advanced a person's maturational development and the more differentiated the set of values, the more inclined that person will be to develop interests on the basis of conscious value judgments.

The value orientation and the emotional components of interest can surface in diluted form, as a *preference* for particular objects, activities, and topics. Preference is a relative criterion, the strength of which can only be measured in comparison with other objects and activities. Empirically useful indicators of preference include relative desirability of the object in the eye of the individual, time spent with the object, and choice in favor of interest-relevant activities.

Another important characteristic of full-fledged interest is *self-intentionality*. This is somewhat comparable to both Csikszentmihalyi's (1975) "autotelic" behavior, which is based on the concept of "Funktionslust" (Bühler, 1918), and Deci's (1980) intrinsic motivation, both of which refer to activities that are conducted in the absence of external stimulation (e.g., sanctions or reinforcement) and thus are under subjective-internal control (Deci & Ryan, 1985a, 1985b, 1991). One can speak of an activity as self-intentional only when the person can plan and carry it out independently, as is the case with an interest-related activity. Hence, the principle of self-determination must be involved in interest (see Deci, this volume).

Self-determination differentiates the present view of interest from instrumental action models of motivation (cf. Heckhausen, 1980), which define the motivational basis of an action as a process of rational calculation. These theories presuppose that a person chooses activities on the basis of the perceived likelihood of desirable or undesirable outcomes. However, consideration of long-term "payoffs" actually plays a subordinate role in actions guided by interest. Rather, participation itself and the immediate outcomes are considered to be sufficient reasons for performing the action.

*Positive Emotions.* Interest-oriented engagement with an object is usually accompanied by positive or pleasant feelings. Some theories of

emotion (cf. Averill, 1980; Lazarus, Kanner, & Folkman, 1980) maintain that an optimal level of arousal (somewhere between "effort" and "comfort") is experienced during elicitation and performance of the action. In extreme cases, the positive emotions that accompany activity can intensify to the point of total immersion in that activity. This results in a "flow" experience, as described by Csikszentmihalyi (1975, 1990). But positive emotion is a global evaluation that certainly cannot describe every aspect of an interest-oriented activity. During the course of such engagement, some negative feelings, such as anger and discouragement, may also occur. However, the emotional balance is presumed to be positive when the activity is considered as a whole.

*Cognitive Aspects.* Repeated engagement with an object of interest results in specific cognitive structures. In keeping with Renninger (1989, 1990; Renninger & Leckrone, 1991; Renninger, this volume), the authors assume that an individual tends to develop relatively differentiated knowledge about an object of interest. This includes knowledge about the object and knowledge about action possibilities (procedural knowledge). Action-oriented knowledge relates both to previous concrete experiences (Prenzel, 1988), and to object-based activities (experiences) that the person has not yet attempted but has learned about from watching others, or from other information sources (cf. the chapters by Prenzel and Renninger in this volume). In its developed form, then, interest is characterized by a high level of object-specific cognitive complexity (Norman & Rumelhart, 1978; Seiler, 1978).

As Piaget (1974, 1981) suggests, a person working in a domain of interest is exceptionally willing to assimilate that which is experienced and to adjust his or her thinking accordingly. The use of available schemata to set goals, make sense of experience, and store new information in memory (assimilation), as well as the modification of schemata and the resulting extended competence (accommodation), are based on interest to a great extent. Piaget (1974) even goes so far as to say, "Every intelligent activity is founded upon an interest" (p. 31). From the perspective of the psychology of knowledge, one could hypothesize that the origin and elaboration of cognitive structures may depend largely on the realization of short- and long-term individual interests. Empirical findings suggest that the nature and strength of interests affect primarily the qualitative aspects of acquired knowledge structures (Krapp, 1989; cf. the articles by Schiefele and by Schiefele, Krapp & Winteler in this volume).

### Developmental Aspects

When viewed as an element in development, interests can be analyzed from two different research perspectives: first, the origin of interests and the modification of interest-oriented P-O relations (interests as dependent variable); second, interests as a condition of development, or, in other words, as a factor that aids in explaining changes in how things are experienced (interest as independent variable).

*Origin and Modification of Interests.* Interests can originate, change, or disappear entirely during any period of a person's development. Correspondingly, the structure of an interest-oriented P-O relation is in a constant state of flux. Individual substructures may grow, others may lose in importance, or a more far-reaching reorganization of the previous structure may occur. In general, all of these changes can be classified according to two fundamental principles of development: *integration* and *differentiation* (cf. Bronfenbrenner, 1979; Lewin, 1954; Oerter, 1977, 1981; Wapner, 1981, 1987b; Werner, 1957, 1959).

Fink (1991) discusses a model for describing the development of interest that distinguishes between two fundamental process components that correspond to the principles of integration and differentiation. If one assumes that an interest-oriented P-O relation consists of many integrated components within a coherent structure, then developmental changes in this structure can be described in terms of these two opposite developmental tendencies.

The first tendency corresponds to the general principal of integration and is referred to as *incorporation*. In general, incorporation involves the integration of isolated parts into an already existing whole. In the development of interest, the newly developed components or isolated simple structures of a P-O relation are incorporated into the salient preference structure of an already existing complex P-O relation. For example, one could use the term incorporation in a situation in which a child who has previously kept two activities separate (e.g., painting and animal care) begins to combine the two activities (e.g. painting pictures that show caring for animals) (see also Renninger & Leckrone, 1991).

The second developmental tendency, *exclusion*, refers to the opposite of incorporation in that it involves the elimination of parts from the whole. In the development of interest, this means that individual components of a complex P-O relation are excluded from the complete structure. In other words, certain objects or activities that have been included in a highly preferred class of activities become less important.

Going back to the last example, the preference for painting pictures of caring for animals is soon replaced by something else.

Incorporation and exclusion represent two fundamental phenomena of interest development. Both processes involve quantitative changes (e.g., number of omitted components) as well as qualitative changes (e.g., reorganization of the existing structure). A typical qualitative change might involve a change in a person's estimate of the value of a component in a complex P-O relation. New activities often introduce further new action possibilities in a P-O relation and thereby change the entire preference structure over the long term. Learning to program a computer, for instance, can completely change an existing interest in computer-related activities. Qualitative change could also involve the transformation of an unstable P-O relation into a stable structure and, thus, describe the emergence of a new interest-oriented P-O relation.

But in addition to being able to adequately describe how interest-oriented P-O relations originate and change, one would also like to be able to explain these changes. Kasten (1985) has formulated hypotheses about the origin of interests that he probed by means of case studies. His results emphasized the importance of environmental stimuli in the home, preschool and school, and of social contacts with adults and peers. Whereas Kasten's hypotheses centered around specific factors in the origin of interests, Prenzel's (1988) model for explaining the effect of interest involved more general mechanisms. According to his theoretical concept, both the cognitive and emotional effects that accompany individual engagements with the object of interest must be considered to explain selective persistence and continuity over time. Cognitive effects would include experiences that stabilize or extend the individual's interest-specific activity schemata. Emotional effects would involve experiences of optimal effort and content-related emotions, or the perception of competence, as described in theories of intrinsic motivation (deCharms, 1968; Deci, 1975; White, 1959; see Prenzel, this volume).

*Interest as a Factor in Development.* Interest is both commonly and scientifically regarded as an important condition for learning. Numerous studies have focused on the relation between interest, learning, and academic achievement (Krapp, 1989; see also Schiefele, Krapp, & Winteler, in this volume). These investigations often assume that interests indirectly influence emotional-motivational factors, such as motivational orientation (Lepper, 1988), or information-processing mechanisms, such as direction and intensity of attention (Csikszentmihalyi, 1988). Thus, this

research relies heavily on the construct of interest to explain cognitive effects.

As discussed earlier, other studies have addressed the importance of interests for *coping* with critical life events (Filipp, 1981; e.g., the transition from home to school). An individual engaged with a personal interest may have a number of experiences that can contribute to feelings of competence and security in the new situation. Interest, therefore, presumably has a stabilizing effect when a person enters into a new social situation.

## THE INTEREST GENESIS PROJECT

### Objectives

The research described here is part of an exploratory longitudinal study (Interest Genesis Project). It was designed to investigate the early stages of interest development in preschool and elementary schoolchildren. To this end, the following were addressed throughout the course of data collection:

1. Assessment of the descriptive characteristics of individual structures of person-object relations during preschool and elementary school (Fink, 1991; Fink & Krapp, 1986a; Kasten, 1985).
2. Description and explanation of the developmental changes in the individual structures of interest-oriented P-O relations.
3. Description of the reciprocal influence of social factors and interest-oriented P-O relations (Fink, Schiefele, & Krapp, 1985; Krapp & Fink, 1986a).

### Procedure and Methods

Data were collected continuously over a 5-year period (from 1980 to 1985) from a small group of children ( $n = 12$ ), starting with their entry into preschool (Kasten, 1985). Because the preschool group stayed together over several years, the study offers a greater amount of inter-related information than would a collection of independent case studies. In order to gain the greatest variety of information and, at the same time, accurately estimate the quality of the data base, data reflecting different levels of analysis were collected. The following methods were used: interviews with parents and teachers, teacher questionnaires, and observations in the home and at kindergarten.

*Parent Interviews.* Twenty-four partially structured interviews were conducted at four different times: upon entry into preschool (September 1980), and at the end of 3 preschool years (June, 1981 through 1983). All of the interviews were conducted in the home with the aim of gathering information about the child's material and social relations at home during the previous time period. Although the guidelines for these interviews were changed from one year to the next, the questions consistently addressing a set of key issues such as the child's engagements in and endurance with activities in and outside the home, the desire for and the value placed on preferred activities/objects/topics, and any material and social changes.

*Teacher Interviews.* During the first 3 years of the project, interviews in the form of group discussions were conducted with the teachers. Teachers were asked about their perceptions of the material and social realms of the children.

*Teacher Questionnaires.* During the second half of the project's first year, teachers were repeatedly given a structured questionnaire over a period of 6 months. The purpose of these questionnaires was to gather continuous data about the children's preferred games, activities, and social partners.

*Observations in the Home and at Kindergarten.* Parallel to the first two parent interviews, unsystematic observations were also conducted in the home. The participant observer reported an impression of the living space in the family environment and observed the child's behavior in familiar surroundings. To strengthen and control the kindergarten data, participant observations were occasionally conducted in the kindergarten also.

### Data Analysis

Initial data analyses focused primarily on the more strongly structured data (Kasten, 1985). Analysis was later extended to include case descriptions based on a collection of meaningful statements in the interviews (with parents and teachers) and observations. In this study qualitative content analyses (cf. Dreher, Dreher, Fink, & Hinkelmann, 1985; Mayring, 1983; Witzel, 1982) were carried out in a series of partially repetitive stages (cf. Fink, 1991). The primary goal of the data analysis was to reconstruct all of a child's P-O relations during the period of study.

The exploratory nature of this descriptive approach to research seems more conducive to hypothesis generation than to hypothesis testing. The goal was not to completely explain the particular phenomena in each individual case but to generate developmental hypotheses that could be supported by the data and preliminary results from single cases.<sup>4</sup>

#### FINDINGS AND CONSIDERATIONS ABOUT THE IMPORTANCE OF INTERESTS DURING THE TRANSITIONAL PHASE FROM HOME TO PRESCHOOL

Previous research has shown that preschool and elementary school children exhibit preliminary forms of interests consisting of repeatable interest-oriented P-O relations that become prominent in the child's structure of preferences (Fink, 1991). These preliminary interests exhibit type-specific structures and varying degrees of complexity that provide a basis for classifying different types of P-O relations. In addition, one can distinguish whether preliminary forms of interests are activity centered, object centered, or topic centered.

In the following, reconstructions of the case studies are reported. The first section focuses on the effects of the critical transition from home to preschool on the development of interests. The second section reviews the importance of interest-oriented PO relations for the management of this critical transition.

#### Effects of the Transition from Family to Preschool on the Development of Interests

Questions generated before beginning the study included the following: Does the transition from family to preschool have a lasting influence on the development of interests? If so, how can this influence be explained? More particularly, how do individual conditions of the critical transition, such as new social contacts, influence the development of interests? Are these influences general or specific in nature? Do they involve primarily individual P-O relations or the entire structure of P-O relations?

For purposes of illustration, two aspects of this research are presented. The first aspect refers to the general nature and direction of influence. In

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<sup>4</sup> There is no formally established procedure for "inventing" such hypotheses. Frequently, the formulation of a convincing hypothesis is the result of a protracted process following the repeated study and discussion of the entire assemblage of data concerning a particular case.

this context, we discuss two hypotheses: the hypothesis of delayed effect, and the hypothesis of structural change. The second aspect refers to the influence of altered environmental conditions, especially in the realm of social relations. Here we discuss three hypotheses concerning the primacy of social versus object relations and the role of new social experiences on the structure of an individual's P-O relations.

### The Hypothesis of Delayed Effects

In studying the adaptation of beginning preschool children, McGrew (1972) and Nickel (1985) found that most children exhibit receptive behavior, along with a "wait and see" attitude. This indicates that there is a delay period before any effect. The present findings confirm this. Individual behavior patterns did indeed change during the first few weeks of preschool (e.g., the new activities learned in preschool were also tried out at home). However, the established structure of accustomed and highly preferred P-O relations that existed before preschool entry remained largely unaffected. Even during the first few weeks of preschool, the children preferred to entertain themselves with familiar objects and games when given a choice.

Conspicuous changes did not occur for a number of months. Even these changes were subtle and could be confirmed only with a highly differentiated analysis. The changes involved, for example, the internal structure of a single P-O relation, and the interaction of various P-O relations.

### The Hypothesis of Structural Change

Fink (1991) proposed a descriptive model for the measurement of structural and dynamic changes in interest-oriented P-O relations over time. According to this model, changes are possible on all levels of the P-O structure. These changes involve the basic components of individual P-O relations as well as the P-O relation system in its entirety. The present findings suggest that changes are possible on both levels. Generally, one finds a fairly inconspicuous, but nevertheless continuous, reorganization of existing P-O relations.

The "organismic developmental approach" (Wapner, 1981, 1987a) characterizes development as a continuous process of differentiation and integration. This also applies to changes in the structure of P-O relations, in that experiences in preschool foster the *incorporation* of new elements into already existing P-O relations and the *exclusion* of various

components within and among different P–O relations. The following case study exemplifies this.

Child No. 4 (Sabine) had a rather highly preferred P–O relation, painting, upon entering preschool. Preference ratings remained at a constant high level during the first years of preschool; thus, there is no change in this regard. However, a more accurate analysis of the developing structure of this P–O relation demonstrates a number of significant changes which may be interpreted as extensions, differentiation, and tendencies toward integration:

- Extension of reference objects (e.g., painting utensils).
- Extension and differentiation of painting themes (e.g. impressions of landscapes and other subjective experiences).
- Extension of situations in which the P–O relation was realized (e.g., painting while on a trip).
- Craftwork techniques were used on painting utensils and painting products, whereas hand-crafted objects were painted originally.

Aside from changing the (internal) structure of a P–O relation, preschool entry can change the rank order and relative weight of the P–O relation, as well as its structure and its links to the system of social relations. As seen in the following example, the case-specific findings indicate that Sabine reorganized her P–O relations with an extension of her living environment. Along with this, she developed a new situation-specific preference structure.

Sabine (Child No. 4) played with dolls intensively and with great delight. In the family setting, dolls were reference objects not only for the highly popular mother–child role play, but also for other role play such as “shopping” or “visiting the doctor.” Sabine would have preferred to play these games with playmates her own age, but they did not live near her. Dolls and role playing with dolls at home allegedly were a substitute for the lack of contact with peers. Upon entry into preschool, these social needs were met. Sabine rarely played alone but participated zealously in group activities and games. The opposite was true at home. Here solitary activities were gaining dominance (e.g., painting and craftwork). Doll play became less significant.

Our findings indicate that, in general, the transition from home to preschool brings about no dramatic changes in a child’s P–O relations. For the most part, children maintain the P–O relations they have already developed. Any changes involve primarily only individual aspects of the child’s interest structure. If one looks only at individual aspects of the new

surroundings that influence the expression of interests, then one must also consider the effects of the changed social environment.

Presumably, *social influences* play an important role in the formation, change, and development of P-O relations. The type of influence, however, is very different in each case, especially because interactive processes must be taken into account. In the following, three hypotheses about social influences derived from this case material are described.

### The Hypothesis of the Primacy of Social Relations

Lewis and Brooks' (1975) proposition about the primacy of social (vs. non-social) cognitions states that a child first develops cognitive categories for his or her social environment. These categories then serve as the basis for later engagements with the physical environment. One could assume, then, that a child might first seek to make and stabilize social contacts before attempting new forms of engagement or developing new P-O relations. Studies of the social contacts of beginning preschool children also indicate this. According to Schmidt-Denter (1985), such children must take the initiative in making contact. In order to be successful in their social attempts, they must observe the established forms of interaction in the preschool and adapt their repertoire for making contact accordingly. The data from our longitudinal study show that the nature of children's attempts to make contact change significantly, especially in the first half year. In addition, children initially prefer games that do not require engagement with unfamiliar objects (e.g., passive participation in group activities). Voluntary engagement in contact that involves the whole group simultaneously taking part in the same activity begins later.

During this critical phase of transition, children often retreat to familiar P-O relations, thereby avoiding new and unaccustomed activities at first, as the following case study illustrates.

Dirk (Child No. 3) was very close to his mother and suffered separation anxiety during the first few weeks. He did not succeed in developing friendships with other children during this time. He frequently withdrew and completely rejected cooperative games. After about 6 months, he gradually developed a friendship with Katrin, a girl his age. At the same time, his play behavior also changed. He participated more and more in social games and began to incorporate new activities into his repertoire of behavior (e.g., family-centered role play).

Although there is further evidence supporting the hypothesis of the primacy of "social problem solving," it should be noted that some findings seem to contradict the hypothesis. Careful investigation of the case study, however, usually unearths a plausible explanation for the absence of the expected phenomenon, for example, discovering that the child had the opportunity to become accustomed to adapting to new social situations before preschool. The following example was a case in point.

At first glance, Daniel's (Child No. 12) behavior seemed to contradict the hypothesis. As of the first day Daniel began playing without any notable reluctance, and he became especially active when his P-O relation "animals" could be converted into a game. It must be noted, however, that Daniel was an extraordinarily self-assured child who enjoyed making new contacts. Evidently the new social situation did not pose a problem for him. Because he felt secure in new social situations from the very beginning, he was able to solve the problem of social adjustment and integration. Therefore, he could profit immediately from new (objective) environmental conditions.

#### The Hypothesis of Catalysis

New social experiences in preschool (e.g., peer modeling) affect the extension and partial reorganization of existing P-O relations (see aforementioned hypothesis of structural change). It is also possible that entire structures of P-O relations will change dramatically during the critical transition. Our data, however, offer no indication of such structural changes due to social influences. Instead, changes usually develop slowly within the context of an already familiar P-O relation, as the next example involving Dirk shows.

After the friendship between Dirk (Child No. 3, see earlier) and Katrin stabilized, they frequently engaged in role playing (usually together), with which both were familiar. Dirk entered more and more into the kinds of games, objects, and topics stipulated by Katrin (e.g., family-related topics). He evidently later transferred this to new situations outside the preschool setting because during the second interview, his mother reported noticing a striking extension of his role-playing behavior at home.

Overall, our findings indicate that, initially, a child's successful social integration into preschool does not overwhelmingly effect his or her P-O relations (see aforementioned hypothesis of delayed effect). New social experiences may serve as a kind of catalyst to strengthen and support developmental tendencies begun at home. Furthermore, these experiences

foster the child's readiness to explore new objects and become engaged in new topics of interest.

### The Hypothesis of Inhibition

Not all social experiences in preschool are positive ones. For the new child, having to make contact and play with unfamiliar people, and having to adjust to new social norms can be accompanied by feelings of insecurity and anxiety. Such feelings can result in the child's isolation from social experience. Inadequate social adjustment can mean that a child and peer group may avoid contact with each other for even longer periods of time.

Most children manage to overcome problems of isolation in the first weeks of preschool by taking the initiative and successfully establishing contact with their peers (Schmidt-Denter, 1985). They are then open to new experiences in object-related fields. The difficulties of some individuals, however, last longer. Like Michael, in the next example, even though they are willing to take the initiative in making contact, they are unable to "connect" with the peer group. These children withdraw, sometimes for long periods, and thus do not profit from new preschool experiences.

Michael (Child No. 2), as the only child in the preschool group from a lower economic class, was also the only child in the group who spoke in dialect. Although at first very receptive and eager to make contact with other children, he had difficulty becoming a member of a play group. Despite his own efforts, the others rarely involved him in their games. As a result, Michael began to withdraw and increasingly came to dislike going to preschool. He began to be absent frequently and, when in the school, he usually played alone in a stereotypical manner with special playing materials.

The reports and observations, as a whole, suggest that Michael's realization and further development of object-related activities were restrained under the given conditions. Not only was he hindered in the maintenance of P-O relations for which he had developed high competence and surprising endurance at home (e.g., arts and crafts), but his increasing social isolation provided no opportunity for him to form new and longer-lasting P-O relations in the preschool setting.

## THE CONTRIBUTION OF FAMILIAR P-O RELATIONS IN COPING WITH THE CRITICAL TRANSITION FROM FAMILY TO PRESCHOOL

Thus far, the P-O relations of the child have been treated largely as dependent variables. The following hypotheses assume that P-O relations can also be seen as independent variables that help to explain various phenomena of development. Of special interest are the questions of whether and how familiar P-O relations might help the child to manage the transition from home to preschool.

### The Security Anchor Hypothesis

As mentioned earlier, studies with young children have shown that familiar objects (e.g., specific toys, a security blanket) can reduce fear of new situations. These objects serve as a "security anchor" and make up for the temporary absence of a primary attachment person (Brody, 1980; Fink & Krapp, 1986b; Passman & Halonen, 1979; Passman & Weisberg, 1975; Weisberg & Russel, 1971; Winnicott, 1953). Highly valued objects may even help older people overcome the problems of a critical transition (e.g., entry into a nursing home; Wapner, 1981, 1987b). This phenomenon, if applied to an older child, might be explained by viewing the object in question. An older child is familiar with a wide variety of activities involving an object of interest. The feelings that the child associates with the object are mostly positive, as the object and engagements with it are enjoyable, and the child feels secure when engaged in activity with the object, and possibly commands respect from proven competence.

The "anchor hypothesis," therefore, could support the notion of the familiar P-O relation as a secure base, with individual components or substructures comprising the externally visible "anchor point" at any given time. Our data indicate that the availability of familiar objects as well as the possibility of engaging in certain activities facilitate the successful management of problematical situations in the preschool and kindergarten. The following two examples show how concrete objects can enhance feelings of security.

When Michael (Child No. 2) felt that he had been slighted in preschool, he often turned his attention to toys with which he was familiar from home. His favorite toys in this situation were toy automobiles (especially trucks), and he played with these toys in a noticeably stereotypical fashion, continually repeating certain play behaviors.

Tobias (Child No. 10) insisted that specific building blocks be packed whenever the family took off on a long or short trip. Upon arrival, Tobias withdrew at first, and for a while played intensively with the materials he had brought along. Only after this "relaxation phase" was he prepared to investigate the new environment.

These examples show clearly that the availability of familiar objects alone cannot explain the sense of security they provide. Equally important are familiar action possibilities that can be carried out with objects found in or brought to the new environment. In many cases, the object is immaterial, as long as certain activities can be carried out with it. This is evidenced in the following example.

Following his entry into the preschool, Clements (Child No. 6) displayed a remarkable preference for games involving bodily motion. Usually this involved playing on the slide, which was often extended to include other forms of active play, such as playing with a ball, climbing, or running. Upon entering the preschool, Clements showed little initiative in making contact with other children. He rarely accepted the offers to play made by other children and suggestions made by the teachers. He instigated most of his play himself, relying on his highly preferred games of motion, which he generally carried out alone in stereotypical fashion.

The case studies show that special knowledge and competence within an area of activity actually represent a security base. In contrast to findings from attachment research, the particular object does not seem to be of central importance. It is not necessary that a specific, beloved object be available, but rather that the child have access to an object that represents a familiar class of objects, so as to carry out a familiar object-related activity. The beloved object then becomes replaceable.

A further similarity among the examples is that the children try to deal with uncomfortable situations by turning their attention for a short time to their familiar P-O relations. They remove themselves from the demands of social interaction, and occupy themselves to their satisfaction, either alone or with close friends. In this way they increase their feelings of security. This increase, however, is a remedy for the current situation only. It does not represent a long-term solution.

P-O relations have a more encompassing function when used in initiating, maintaining, and developing social relations.

### The Hypothesis of Social Contact Initiation

Common interests are an important means for establishing, maintaining, and developing social contacts at all age levels. This is true typically of people who are relative strangers but would like to learn more about one another. It is no coincidence that personal classified ads commonly indicate the interests of the writer as well as those of the partner being sought. Though they do not go to the trouble to theorize about the situation, children also use common interests as a guide when making contact with other children. This is also true at the time of the critical transition to preschool.

With only a few sporadic exceptions, teacher interviews yielded no useful data pertaining to the importance of children's interests for making social contacts in the first hours or days in preschool. Despite this, the findings of McGrew (1972) indicate that interests are very probably of great importance in this area. Also, we find in our case study material many examples of situations where children's P-O relations play an important role in the establishment, maintenance, and development of social contacts with other children. The following example illustrates how a well-defined structure of P-O relations can aid the child in mastering the social environment, in this case by relying on acquired competencies that are attractive in the eyes of peers.

Since early childhood, Daniel (Child No. 12 ) had been interested in animals: He was an avid reader of animal books, frequently visited the zoo and other exhibits with his parents, painted pictures of animals, and in most of his role playing mimicked animal behavior. Reconstruction of the development of his P-O relations revealed a distinctly "topic-centered" structure for the entire period in question. In preschool, Daniel acted upon his interest whenever an opportunity presented itself. His suggestions for animal role playing attracted other children to him. This form of play became his medium for making and shaping contacts to other children. From the very beginning, he was considered to be well integrated into the peer group.

In the following example, a P-O relation formed the basis for a friendship, mentioned earlier, that brought an end to one child's social isolation.

Dirk (Child No. 3) had an unusually strong attachment to his mother and, because of this, had trouble getting used to the preschool at first. He was sad when his mother left him in the morning. He closed himself off from the other children and rejected all invitations to participate in cooperative play. Instead,

he sought out pastimes that required no active social partner (observing and motion activities). Partially at the urging of the teacher, he discovered that Katrin, a socially very competent girl, also liked to do animal role playing, which matched with Dirk's preferred complex P-O relation in the domain "animals." They often played with one another and had repeated contact. Over the course of the first preschool year, a very close friendship developed out of this contact. This friendship continued during the entire time in preschool. Together with his friend, Dirk extended the spectrum of his P-O relations (e.g., dolls, doctor role playing). In addition, he was able in this way to increasingly integrate himself into the peer group.

### The Hypothesis of Compensation

Even children who fail to establish social relations in preschool may be able to make the situation bearable by retiring into familiar P-O relations. The engagement with these objects compensates for their lack of social integration. This can be seen in the next example.

Clemens (Child No. 6) remained an outsider for the entire first year and part of the second year. Occasionally he played with one child or another for a short time, but he never stayed in any group for long. He remained an outsider, tolerated by all of the others, while their efforts to integrate him into their play went unrewarded. Nevertheless, from the very beginning, Clemens demonstrated striking continuity in his play behavior. He was interested in a few special object areas (e.g. building blocks and picture books), toward which he directed his attention repeatedly and with extraordinary endurance. He seemed to compensate for his social isolation with the help especially of intensive and elaborate object-based engagements. It was not until the second year that the teachers were able to successfully integrate Clemens into the group.

In the final analysis, however, this attempt to cope is little more than a continuation of situation-specific withdrawal behavior (see the security anchor hypothesis aforementioned). It does not represent a solution to the problem situation and may even make it more difficult, as the following example illustrates.

Michael (Child No. 2) at first only occasionally retreated to familiar P-O relations when confronted with unpleasant situations. This behavior, however, became more and more common and interfered with his social integration. In this way, Michael remained a problem child throughout his entire time in the preschool.

## SUMMARY AND SOME CONCLUSIONS

The thoughts and findings presented in this chapter are based on a theory in which interests are conceptualized as pronounced short-term or long-term person-object relations (P-O relations) that are of value to the person. During the course of development, changes occur in the pattern of a person's interests. When new experiences with the environment and increased possibilities for action open new areas of interest, areas that were previously preferred become less important. Far-reaching changes very often accompany a "critical transition" in life, such as the transition from home to preschool or kindergarten. From a developmental perspective, such changes are important in two ways. On the one hand, critical transitions can lead to an extension, modification, or reorganization of P-O relations. On the other hand, stable P-O relations represent a security base for children in overcoming transition problems.

Empirical investigation of these phenomena involves certain difficulties when one interprets interest not as a dispositional characteristic of personality, but rather as a specific relation between a person and an object from the environment which leads to a subjective representation, the structure of which constantly changes over the course of development. In general, conventional techniques for the objective recording of interests indicate only relative preferences for specific (global) interest areas. These techniques yield no information about subjective representations, and they give no insight into the effect in concert, or of the process of change, of individual components of the ideographic preference structure. To compensate for this shortcoming, the researcher must make use of other techniques. Such techniques would be based upon subjective estimation and could be used to evaluate qualitative data (see Valsiner, this volume). The research approach presented here is a first step in this direction. It is based upon various data sources and a relatively wide range of information about the development of interests in individual children. In this chapter, we have presented descriptive findings, and hypotheses derived from these findings, pertaining especially to the critical transition from home to preschool/kindergarten.

Findings from the present study indicate that the critical transition from home to school does indeed change the interests of children. In general, however, these changes are not dramatic enough to completely overturn the established system of P-O relations. Rather, changes usually take place in gradual and subtle ways. Whereas the main structure of P-O relations remains intact or changes very slowly, single components within

individual P-O relations are incorporated or excluded. In addition, the nature of the connections among P-O relations and among single components changes (the hypothesis of structural change).

In keeping with the assumptions of the organismic developmental approach (Wapner, 1981, 1987b), we believe it makes sense to interpret the development of interests as the quantitative and *qualitative* modification of subjectively represented (knowledge) structures. Noticeable changes in a child's preferences for certain objects and/or activities (e.g., playing with completely new objects) does not necessarily imply a change in the existing interest structure. Frequently, such an observable change of preference involves only one component of a larger P-O relation, the basic structure of which remains unchanged. Detailed qualitative analysis of the origin of interest-oriented P-O relations supports the hypothesis (discussed elsewhere) that, already during childhood, the development of interests exhibits a high degree of "object continuity" (Fink, 1991; Renninger & Leckrone, 1991).

Social factors play a decisive role in determining whether and to what extent new interests develop or old interests are abandoned or changed during a period of critical transition. Our data seem to indicate that children, when placed in a new environment, first involve themselves in a reorganization and stabilization of their social relations, try out new friendships, overcome social anxieties, and determine their own social "rank" before developing new interests (the hypothesis of the primacy of social relations). This also explains the repeatedly recorded time delay for observable effects. It usually takes several months before the changes in the child's interest structure brought about by the new environment are obvious (the hypothesis of delayed effect). Our observations point to both the positive and negative effects of this. On the positive side, the new surroundings and the new social experiences often function as catalysts for the development of interests, by enabling components of the interest structure that are already present to "bloom" (the hypothesis of catalysis). On the negative side, some children are unable to overcome the anxieties induced by the kindergarten environment and are more likely to be inhibited in their development of interests (the hypothesis of inhibition).

The present findings confirm indirectly the educational principle that new information must be related to prior knowledge and skills if it is to be absorbed and structured for long-term retention. In terms of the development of children's interests, this means that new experiences in preschool or kindergarten will have lasting effects only if the child is able to

incorporate them into an existing structure of P-O relations. These conclusions have many implications for educational practice. Preschool teachers should concentrate on acquiring a detailed picture of each child's P-O relations as soon as possible. This is especially true for children who are thought to be "difficult cases." In presenting a child with new experiences, the teacher must consider the child's existing structure of P-O relations. (See the chapter by Renninger in this volume for further discussion of this point.) From a developmental standpoint, an excessive offering may do no harm but, at first, it is probably useless.

In addition to investigating how the events associated with a critical transition can bring about changes in already existing interests, the present study also examined whether the interests acquired at home are useful in dealing with the problems of a critical transition. Beginning with the observation that many people in such transitional phases report an especially strong valuing of particular objects that belong to their "past" (Csikszentmihalyi & Rochberg-Halton, 1981; Demick, Redondo & Wapner, 1986; Wapner, 1981), we hypothesized that, in coping with the problems of a transition, a child relies heavily on already developed P-O relations. Findings from our descriptive studies confirm that a child's interests from home can facilitate this transition. Interests appear to act as a security base to which the child can return in special situations or for longer periods of time. This phenomenon has been discussed here in terms of both the anchor hypothesis and the compensation hypothesis. Stable forms of engagement with particular object domains allow a child who finds him or herself in a new, perhaps anxiety-producing environment, to search for familiar objects or to create familiar situations that correspond to his or her interests. In this way, the child can busy him or herself with familiar objects, and needs not fear that he or she will be confronted with unknown challenges.

For the anxious child, seeing that other children pursue similar activities or are interested in what that child is doing makes it possible to reduce social anxieties and/or to develop new social contacts. Interests that the child brings to the new situation appear to help build new social contacts, particularly when those interests coincide with the interests of others (initiation hypothesis).

This aspect also has implications for everyday practice. A child who will soon enter preschool should be encouraged to cultivate individual P-O relations in order to acquire some competencies. Parents, however, should bear in mind that, at this age, the concrete forms of activity involving an object of interest are at least as important as the gain

in knowledge about the object that results from this activity. Knowing about different possible forms of engagement, and willingness to try out new forms of engagement, are important prerequisites for the development of personal, or individual, interests in unfamiliar situations, and in finding common elements of interest-oriented activity when interacting with strangers.

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