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Continuity of the Prototypes of Social Competence and Shyness over the Life Span and Across Life Transitions

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The continuity of the prototypes of two personality traits, social competence and shyness, over the life span and across life transitions was studied. Teachers who were either familiar with children in a particular life phase, or who were themselves in a certain transitional or stable life phase, were asked to give a description of a prototypical socially competent person and a prototypical shy person in that specific life phase. Results showed almost no change across the life phases in the extent to which specific behaviors or personality characteristics are regarded as typical for social competence or for shyness. Social competence and shyness therefore can be assessed by the same judgmental instruments at different ages and in different kinds of life phases.

KEY WORDS: Construct continuity; Q-sort method; personality traits; social competence; shyness.

INTRODUCTION

Longitudinal research on personality development has often focused on issues of stability and change in an individual's life course. Caspi and Bem (1990), for example, differentiated absolute stability (the constancy of an attribute within an individual), differential stability (the constancy of interindividual differences in an attribute), and structural stability (the persistence of correlational patterns among a set of variables across time).

This last kind of stability has also been referred to as the *continuity of a construct.* Baumrind (1989), for example, suggested that a construct's continuity should be studied by evaluating the nomological network of the construct at separate time periods. A similar approach was suggested by Emmerich (1964), who defined continuity as the temporal consistency of the factor structure of a large item pool. However, as Asendorpf (1992) pointed out, these approaches may be problematic in that inconsistency in relations at different time points among constructs does not provide clues for which one of them causes the discontinuity. He therefore proposed a different approach to the study of construct continuity and suggested that a construct is continuous over time if it can be operationalized by the same behaviors at different points in time.

This operationalization of the construct continuity refers to what Kagan (1969) has described as homotypic continuity. When a construct shows discontinuity, Kagan's concepts of both discontinuity and heterotypic continuity might be involved. As Asendorpf (1992) pointed out, the distinction between these two concepts is a matter for theoretical decision rather than empirical investigation.

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In this study, we combined the ideas concerning construct continuity with Block's (1971) notion of a person-centered, or ipsative, stability by studying the continuity in the configuration of variables belonging to the *prototype* of a given construct. Such a prototype is defined by a pattern of saliency scores for a whole set of person characteristics. For example, judges can be asked to decide whether the characteristic "has a high educational level" is more salient for a prototypical intelligent person than the characteristic "has lots of friends."

We accordingly assumed that the continuity of a construct is reflected in the temporal stability of the pattern of saliency scores for the prototype of that construct. To study the continuity of a construct, we relied on prototypes (see, e.g., Broughton, 1990) of the constructs in various stages of life, provided by teachers. The use of informant ratings by peers, parents, teachers, or other observers is still fairly common in research on personality development, although various researchers have stressed the need for gathering data from multiple sources using multiple methods. Therefore, the study of the prototypes of personality traits as held by observers, for example, teachers, is justifiable. The two constructs that we studied this way were social competence and shyness.

Continuity of Social Competence

Social competence is a central construct in research on people's adjustment to their everyday life and to the problems they encounter. When defining social competence, most researchers implicitly refer to competence in handling problems or opportunities encountered in interaction with the social environment (see, e.g., Ford, 1982; Rubin & Rose-Krasnor, 1992; Zigler & Trickett, 1978).

Zigler and Trickett (1978) proposed that measures of social competence should reflect one of two major criteria. The first is a person's success in meeting societal expectancies and the second is the individual's self-actualization or personal development. Recent definitions have seemed to stress developmental outcomes more than societal expectations. Ford (1982), for example, defined social competence as a subdomain of competence that involves the attainment of relevant social goals, resulting in positive developmental outcomes. Waters and Sroufe (1983) stressed the active role of the individual and described a competent person as someone "who is able to make use of environmental and personal resources to achieve a good developmental outcome" (p. 81). This active role was also stressed by Rubin and Rose-Krasnor (1992), who defined social competence as "the ability to achieve personal goals in social interactions while simultaneously maintaining positive relationships with others over time and across situations" (p. 285). This last definition extends the notion of competence not only to using, but also to maintaining social relationships.

To summarize, a working definition that takes all elements into account would be the following: A socially competent person is able to achieve goals (both personal, short-term goals, and more general goals related to a good developmental outcome) in social interactions while simultaneously using and maintaining positive relationships with others over time and across situations.

As a prerequisite to studying the causes and consequences of social competence (and thus the causes and consequences of optimal adaptation over the life span), knowledge about the continuity of the construct of social competence (i.e., about the exact meaning of the construct and its personality and behavioral correlates at different life phases) is necessary.

In the light of the present study's focus on people's prototypes of social competence, it is important to mention that, as Ford and Miura (1983) have already noted, completely objective definitions or evaluations of social competence are not realistic, given the different levels of analysis, the complexity of the construct, and the many different criteria that one can apply in making evaluations. Value judgments and, particularly, people's expectations and ideas of social competence therefore are always included. Similar remarks were made by Sternberg (1990), who argued that the evaluation of competence is not only based upon levels of performance, but also on people's conceptions of the construct.

Waters, Noyes, Vaughn, and Ricks (1985) therefore asked experts in the field of developmental psychology to define the construct of social competence for young children, using, among other instruments, the California Child Q-set (Block & Block, 1980). Items loading strongly on this construct refer to both social relationships (e.g., "gets along well with other children") and personality characteristics (e.g., "is self-reliant").

In the study by Ford and Miura (1983), teachers, university students, and children were asked to describe "the most socially competent person I know." The main components found in these descriptions were prosocial skills ("responds to the needs of others"), instrumental skills ("knows how to get things done"), social ease ("enjoys social involvement"), and self-efficacy ("has a good self-concept"). Ford and Miura acknowledged the possibility that people's conceptions of social competence might vary according to the age of the target individual. However, despite some developmental differences, the similarities between the prototypes provided for children and for adults were more salient than the differences.

With the exception of this last study, the continuity of the prototype of social competence, that is, the continuity of the behavioral and personality correlates mentioned as being relevant to the construct, has not been studied. A conceptual framework for studying the continuity of the construct of social competence can be provided by theories about child and adult social development that focus on life transitions.

Life Transitions

Important personal transitions provide special opportunities for the study of continuity and change in personality (see, e.g., West & Graziano, 1989). These transition periods are characterized by demands such as adjusting to new roles, developing new social bonds, and reappraising current assumptions and life goals. Social competence, then, can be defined as the ability actively and effectively to adapt to these tasks or transitions, as far as they concern social interactions. Social competence thus can be expected to have a different focus in each phase of the life span and, accordingly, different correlates in a person's behavior and personality.

In this study, we investigated the continuity of the construct of social competence in relation to various transitions across the life span. The transition phases in childhood were defined by changes in the school career and included entrance into preschool, into elementary school, and into secondary education.[4] For the first transition phase in (young) adulthood, the entrance into college was chosen. Further transitions in adulthood were restricted to normative transitions that at least a large number of people experience, such as the transition into a professional career, the transition into parenthood, and the transition into retirement.

As Levinson (1986) noted in his theory on adult development, lives can be construed as alternating between periods of relative stability and periods of change or transition. Caspi and Moffit (1991) suggested that dispositional factors may be most pronounced in times of life course discontinuities, so that life transitions should show continuity in personality. According to this view, the continuity of the construct of social competence should be higher when measured across life transitions than when measured across stable periods. We assumed, however, that this effect might be attenuated or even reversed by another aspect of life transitions. Life transitions at different ages may well involve different sorts of adjustment problems and therefore require different aspects of social competence at different ages; this would produce discontinuities in the construct of social competence across different life transitions. To evaluate possible effects of life transitions on the continuity of social competence, our design included assessment for each transition phase and also for a relatively stable period defined as occurring some years after this transition, but before the next one. Further, to compare the continuity of the construct of social competence across the different transitional and stable phases with the continuity of other personality traits, a second trait, shyness, was studied.

Continuity of Shyness

As Asendorpf (1992) pointed out, the trait of shyness is well suited for the study of continuity over the life span because it is a major personality dimension in children and adults, it is deeply rooted in lay psychology and therefore easy to measure by self- and other ratings, and it is an easily observable trait and thus has high self-other agreement. Asendorpf (1992) showed that when shyness with strangers was operationalized by the same set of behaviors for preschool age children and university students, parental judgments of children's shyness and students' self-ratings of shyness showed a strikingly similar pattern of correlations with these behaviors, indicating a high homotypic continuity of shyness between early childhood and adulthood.

[4] In the German school system, secondary education is tracked according to the intelligence performance of the child. The secondary education used in this study was the "Realschule," a form of education for children of average intelligence.

Because unfamiliar social situations are one major class of shyness-arousing situations for both children and adults (see Asendorpf, 1990), shyness is a particularly salient trait for those life transitions where people must adapt to new social settings. Therefore, we expected a higher continuity of the construct of shyness between transitional than stable periods in the life span, above and beyond the continuity effect suggested by Caspi and Moffit (1991) for traits in general.

Shyness can be considered to be one particular aspect of the broader construct of social competence. Because social competence includes many different lower-level competencies and because different competencies may well vary in their importance for the different adjustment problems in different life phases, whether transitional or not, we expected that the construct of social competence should show a lower continuity than that of shyness, particularly over long age intervals. Taken together, we assumed the highest continuity for the prototype of shyness across life transitions, the second highest continuity for the prototype of shyness across stable life phases, and the lowest continuity for the prototype of social competence.

Person-Centered Approach to Stability and Continuity

One way of studying a complex construct is by asking people to describe a prototypical example of that construct. Such a prototype can be seen as a set of major features, or properties, that characterize the construct. In addition to the study by Ford and Miura (1983) already mentioned, similar approaches have been followed for the constructs of loneliness and depression (Horowitz, French, & Anderson, 1982), intelligence (Sternberg, Conway, Ketron, & Bernstein, 1981), phobias (Furnham, 1995), and depression (Furnham & Kuyken, 1991) and have led to an adequate identification of the relevant characteristics of these constructs.

The procedure followed in this study, therefore, was to compare the prototypes of social competence and shyness given for various transitional and stable phases over the life span, to detect life-phase-specific features of the prototypes. A discontinuity of one of these two constructs would be reflected in changes in the saliency of these features across age. By asking raters to provide a description of prototypic persons, we gathered what Sternberg et al. (1981) called "implicit theories" of social competence and shyness: the constructions that reside in people's minds, as opposed to "explicit theories," that is, constructions based on observed data.

Changes in a configuration of variables can be detected by using a Q-sort approach (Block, 1961/1978; Ozer, 1994). Raters are asked to sort a large number of statements about the behavior of a particular type of person. Because of the forced distribution of items in a Q-sort, observer effects (such as response sets) can be canceled out. The resulting distribution of items refers to a prototypical personality profile that can easily be compared across different life phases (see e.g., van Aken & Asendorpf, in press). By studying the ipsative stability of the behavioral and personality characteristics, it is possible to describe the prototypical socially competent and the prototypical shy person over the life span.

In choosing the item sets for the study, we decided to use the broad-band item sets of the California Q-set (Block, 1961/1978) for the prototypes in adulthood and of the California Child Q-set (Block & Block, 1980) for the prototypes in childhood. An advantage of these item sets is that they were developed to cover the most important aspects of personality across these age ranges. A disadvantage is, of course, that we were forced to consider two phases of life-span development, childhood and early adolescence (ages 3 to 15 years), and adulthood (from age 18 onwards). The continuity of the two constructs across these two phases can be studied by comparing the prototypicalities of overlapping items in both Q-sets.

METHOD

Procedure, Design, and Instruction

For each particular life phase that is characterized by a major life transition, a different set of raters was asked to give a Q-sort description of a prototypical socially competent person and a prototypical shy person. In addition, for each stable period, defined as a few years after this life transition, but before the next transition, a different set of raters was asked to provide prototypes. Thus, each transitional or stable life phase had its own set of raters. The complete design is presented in Table I.

Table I. Design of the Study

Measurement point		CCQ	CQ
T01.	Beginning preschool	×	
T02.	After one year in preschool	×	
T03.	Beginning elementary school	×	
T04.	After some years in elementary school	×	
T05.	Beginning secondary education	×	
T06.	After some years in secondary education	×	×
T07.	Beginning teacher training		×
T08.	After some years in teacher training		×
T09.	Beginning profession as a teacher		×
T10.	After some years in profession as a teacher		×
T11.	Start of parenthood		×
T12.	After some years of parenthood		×
T13.	Beginning retirement		×
T14.	After some years in retirement		×

Note. CCQ = California Child Q-Sort: prototypical child described by teacher; CQ = California (Adult) Q-Sort: prototypical adult described by teacher in the same life phase. At T06, children and teachers gave Q-Sort descriptions with both CCQ and CQ.

First, the raters received a short introduction in which the procedure and the constructs of Social Competence and Shyness were described and definitions of the constructs were provided. Before actually giving the description, raters were then primed about the specific phase for which they were supposed to provide prototypes by asking them to imagine this phase and then to answer a few questions such as "What are the typical behaviors for a socially competent (shy) person in this phase?" "What are the typical situations that elicit social competence (shyness) in this phase?" and "Who are the typical interaction-partners with whom social competence (shyness) is demonstrated most clearly?" These questions were asked only for the purpose of priming the raters to think about the specific life phase and were not analyzed further.

Some restrictions were made in the choice of the raters and in the instructions on the prototypes to be described. These restrictions were made to ensure that any variations found in the prototypical descriptions across the life phases were actually due to these phases and not to any other characteristics of either the rater or the prototypical person to be described. First, all raters as well as the target persons in the instructions for adulthood were teachers. This was done because teachers were the most easily available appropriate raters for the childhood phases. For the target individuals for the phases in adulthood, restriction to one professional group seemed necessary to ensure a certain degree of consensus about the life course of the prototypical persons to be described. Teachers were chosen as the professional group to be studied.

Second, the target persons in the instructions were described as male. This was done because the life course for females might show larger individual variation, depending on whether women continued to work when they got married, whether they had children, whether and when they wanted to work after having children, etc. Therefore, instructions were in the following form: "Please describe how you yourself imagine the prototypical shy boy when he has just entered kindergarten," or "Please describe how you yourself imagine the prototypical socially competent teacher . . . ."[5]

[5] In German, the word *teacher* has different male and female forms (*Lehrer* and *Lehrerin*). The male form was used in the instructions.

Instruments

The descriptions of the prototypical persons were given by the raters using a Q-sort-procedure (Block, 1961/1978). The instruments used were a 54-item German short version of the California Child Q-Sort (CCQ: Block & Block, 1980; Göttert & Asendorpf, 1989) and a German version of the 100-item California (Adult) Q-Sort (CQ; Block, 1961/1978; van Aken, 1992). The adequacy of the translation of the items was tested by asking bilingual subjects (n = 10 for the CCQ, n = 18 for the CQ) to provide a personality description (for the CCQ of a child familiar to them, for the CQ of themselves) in both languages, with some days in between. Median Q-correlations (see below) between the English and the German personality descriptions were satisfactorily high (r = 83 for the CCQ, r = .73 for the CQ).

In the Q-sort-procedure, items have to be sorted into categories, ranging from *extremely uncharacteristic, or negatively salient* (1) to *extremely characteristic, or positively salient* (9) for the person to be judged. Items must be sorted in a fixed distribution, with six items in each of the nine categories for the short version of the CCQ, and a quasinormal distribution of items over the nine categories (5, 8, 12, 16, 18, 16, 12, 8, 5) for the CQ.

An advantage of this procedure is that comparisons have to be made *within* a person, rather than *between* persons, so that it leads to a personality profile of the prototypical person, with the most positively characteristic items receiving Rank 9, and the most negatively characteristic items receiving Rank 1. Profiles can than be compared using Q-correlations (Block, 1961/1978; Ozer & Gjerde, 1989), in the present study by correlating two profiles over time. This comparison results in a correlation coefficient, with N = 54 for the CCQ and N = 100 for the CQ. This coefficient can range from −1, indicating complete reversal of the profile, through 0, indicating no continuity of the profile over time, to +1, indicating complete continuity of the profile.

Participants

For each measurement point (i.e., for each transitional or stable life phase), four or five raters were employed. Again, to ensure that variations found in the prototypical descriptions were actually due to the phases in the life span and not to characteristics of the raters, all raters were female, to avoid the possibility of gender differences in prototypical descriptions. The choice of female raters was made because male preschool teachers are still a rarity in Germany.

For the measurement points in childhood, teachers who were currently teaching the specific phase of interest were chosen. For the measurement points in adulthood, teachers who themselves were in the specific phase of interest were chosen. Thus, for example, the prototypes for a child just entering preschool were provided by teachers of that specific preschool level; the prototypes for a student beginning her teacher education were provided by students in the beginning of their teacher education; the prototypes for a retired teacher were provided by retired teachers, etc.

Teachers providing the prototypes of children in preschool and elementary school (T01 to T06) were recruited through different schools in the city of Munich (Germany) that were asked for their cooperation. Through the principals of these schools, individual teachers were approached. Data were collected during a visit of an experimenter after school hours. The mean age for this subsample was 38.9 years with a range of 23 to 62 years. Prototypes for the persons in teacher training (T07, T08) were provided by students in these phases of training. Teacher training in Germany is done within the university system, where students can specialize in certain contents. Students were recruited by advertisements in university buildings. Prototypes for the professional phase (T09 to T12) were provided by teachers in secondary education. They were recruited through an organization for compulsatory professional training. Data were collected during a meeting of the teachers in the framework of this training. The mean age for this subsample was 29.6 years with a range of 27 to 40 years. Data on parenthood and number of years in profession were also collected, and raters were assigned ad hoc to phase T11 and T12 depending on whether and since how long they had children, or to the other phases depending on the number of years in profession. Prototypes for retired teachers (T13, T14) were provided by retired teachers that were recruited through the archives of the official organization of secondary school teachers in Munich. They were sent a letter and, if they were willing to cooperate, they were visited at home for the data collection. The mean age for this subsample was 72 years with a range of 61 to 85 years.

Table II. Continuity of the Social Competence and Shyness Profiles Across the Life Span

	T01	T02	T03	T04	T05	T06	T07	T08	T09	T10	T11	T12	T13	T14
T01		.85	.84	.85	.80	.77								
T02	.86		.87	.86	.84	.86								
T03	.90	.79		.85	.79	.77								
T04	.86	.85	.89		.88	.86								
T05	.87	.81	.84	.88		.90								
T06	.90	.88	.93	.94	.87									
T07								.88	.91	.89	.90	.83	.85	.80
T08							.91		.91	.83	.88	.86	.83	.73
T09							.93	.92		.86	.90	.88	.83	.77
T10							.88	.90	.92		.86	.79	.81	.82
T11							.92	.91	.92	.91		.85	.81	.76
T12							.85	.85	.86	.90	.89		.83	.71
T13							.86	.82	.84	.81	.87	.77		.76
T14							.84	.81	.85	.82	.89	.80	.88	

Note. For T01 to T06: $n = 54$, for T07 to T14: $n = 100$, all correlations $p < .001$. Lower half of each block: correlations for social competence profiles; Upper half of each block: correlations for shyness profiles.

A degree of overlap between raters judging prototypical children and raters judging prototypical persons in their own life phase was created for the life phase "Some years in Secondary Education (T06)." Children in this phase are 15 to 16 years old and can be expected to be able to use the Q-sort procedure. In addition, in this period both the items of the CCQ and those of the CQ are appropriate. Therefore, for this phase, four groups of raters were recruited to describe the prototypical children: children using the CCQ, children using the CQ, teachers using the CCQ, and teachers using the CQ. This allowed us to check for any rater effects in both the CCQ and the CQ.

To evaluate interrater agreement on the prototypical descriptions, Cronbach's alpha's were computed between the raters within each measurement point and within the rater/instrument combinations at T06. Alpha's for interrater agreement are computed the same way as alpha's for interitem consistency except that data from different raters rather than different items are treated as replicate indicators of the construct. Alpha's ranged between .74 and .95. Mean alpha's were .88 for Social Competence and .84 for Shyness.

Because of this high interrater agreement within the measurement points, the prototypes of a personality trait provided by different raters were averaged for each measurement point, resulting in one prototypical description.

RESULTS

Profile Continuity

The between-time correlations for the Social Competence profiles and the Shyness profiles are presented in Table II.

Almost without exception, the correlations were very high. When the correlation coefficients in Table II were corrected for attenuation using the internal consistency coefficients, they showed a mean increase of .12 (range .06 to .23) for Social Competence and of .18 (range .09 to .26) for Shyness. Mean uncorrected correlations for Social Competence were .87 for both CCQ and CQ, mean corrected correlations were .98 and 1.00, respectively. Mean uncorrected correlations for Shyness were .84 for CCQ and .83 for CQ, mean corrected correlations for Shyness were .98 and 1.00, respectively. Thus, after corrections for attenuation, Shyness and Social Competence showed an extremely high continuity for both instruments.

We tested a possible decrease in correlations across the life span in two ways. First, pooling both instruments, we compared the mean of all adjacent correlations (between T and $T + 1$, $n = 12$) with the mean of all correlations with at least three measurement points in between ($n = 13$). For Social Competence, t-tests showed no difference, both when

uncorrected correlations, $t(23) = 1.21$, n.s., and when correlations corrected for attenuation, $t(23) < 1$, n.s., were used. For Shyness, a small difference emerged for the uncorrected correlations, $t(23) = 2.32$, $p < .05$, indicating that the mean of the adjacent correlations was slightly larger. This difference was not significant for corrected correlations, $t(23) = 1.96$, n.s.

Second, pooling both personality traits, we tested a possible decrease in correlations by again comparing the mean of all adjacent correlations (for CCQ, $n = 10$; for CQ, $n = 14$) with the mean of all correlations with at least three measurement points in between (for CCQ, $n = 6$; for CQ, $n = 20$). For the CCQ, t-tests showed no significant difference for uncorrected correlations, $t(14) < 1$, n.s., or for corrected correlations, $t(14) < 1$, n.s. For the CQ, a small difference emerged for the uncorrected correlations, $t(32) = 2.14$, $p < .05$, indicating that the mean of the adjacent correlations was slightly larger. Again, this difference was not significant for corrected correlations, $t(32) = 1.18$, n.s.

To investigate a possible difference between the prototypes given for persons in a transition phase and persons in a stable phase, the profiles for transition phases were averaged as were the profiles for the stable phases. In childhood, the transition-phase profile correlated .94 with the stable-phase profile for Social Competence and .96 for Shyness. In adulthood, these correlations were .96 for both Social Competence and Shyness.

Another test of possible differences is to compare the mean correlation for the four different combinations of stable and transition phases. For Social Competence, the mean transition-transition correlation ($n = 9$) was .88, the mean transition-stable correlation ($n = 16$) was .88, the mean stable-transition correlation ($n = 9$) was .85, and the mean stable-stable correlation ($n = 9$) was .86. For Shyness, these mean correlations were .85, .83, .86, and .80, respectively. Analyses of variance showed that the prototypes for Social Competence and for Shyness did not differ systematically between these four groups of combinations of transition phases and stable phases [for Social Competence $F(3, 42) = 1.97$, n.s., for Shyness $F(3, 42) = 2.35$, n.s.].

Rater Effects

To check whether there was a difference between raters describing target persons in their own life phase (as was the case with all descriptions given for adulthood) and raters describing target persons in other life phases than their own (as was the case with all descriptions given for childhood), we analyzed the descriptions given for the phase "Some years in Secondary Education (T06)." By asking both children who were in this phase and teachers who were teaching this phase, we created a degree of overlap so that there were descriptions by both types of raters. The prototypes given with the CCQ by children and by teachers for Social Competence correlated .91 and for Shyness correlated .73. The prototypes given with the CQ by children and by teachers for Social Competence correlated .80 and for Shyness correlated .76. This shows that no large differences in prototypes were found between the two types of raters (self- vs. other descriptions) for the CCQ as well as for the CQ.

Comparability of the Instruments

One problem in our design is, as mentioned above, the change of instruments, occurring between T06, some years in secondary education, and T07, entering teacher education studies. However, because the CCQ and the CQ were both developed to provide a broad range of characteristics, they contain a number of overlapping items. To compare the two instruments, we selected those 30 items that were equivalent in both forms. Using the ratings of the students at age 15, where five students used the CCQ and five students used the CQ, we were able to calculate the correlation between the rank order of the 30 items in the CCQ for this phase and the rank order of the 30 corresponding items in the CQ for this phase. For Social Competence, this correlation was .87, while for Shyness it was .73. These figures indicate a high interinstrument consistency.

Using the same set of 30 items, we correlated the pooled across-phase CCQ profiles with the pooled across-phase CQ profiles for both personality traits. This correlation was .87 and .88, for Social Competence and for Shyness, respectively. These results indicate that, even with profiles based on a selected subset of 30 items, both personality traits again showed a high continuity.

Table III. Highest, Medium, and Lowest Ranking Q-Set Items for Social Competence and Shyness in Childhood and Adulthood

Childhood	Adulthood
Social Competence	
Teases other children (1.99)	Is guileful and deceitful (1.61)
Reverts to immature behavior under stress (2.08)	Is subtly negativistic, undermines (1.65)
Is fearful and anxious (2.20)	Has hostility towards others (1.68)
Attempts to transfer blame to others (2.22)	Submissive (2.23)
Is inhibited and constricted (2.30)	Shows condescending behavior (2.38)
Is neat and orderly in dress and behavior (4.71)	Expresses hostility directly (4.81)
Seeks reassurance from others about his worth (5.19)	Prides self on being objective (4.82)
Characteristically tries to stretch limits (5.28)	Favors conservative values (4.96)
Seeks physical contact with others (5.29)	Is fastidious (4.97)
Has high standards of performance for self (5.50)	Regards self as physically attractive (5.18)
Is curious and exploring, open to experiences (7.71)	Sympathetic, considerate (7.71)
Is admired and sought out by other children (7.79)	Dependable, responsible (7.89)
Is vital, energetic, lively (7.81)	Is socially perceptive (7.89)
Get along well with other children (8.11)	Appears straightforward and candid (7.94)
Is creative in thought and work (8.25)	Is ethically consistent (8.25)
Shyness	
Is self-reliant, confident (1.46)	Socially poised (1.50)
Is self-assertive (1.59)	Behaves assertively (1.70)
Is resourceful in initiating activities (1.81)	Gregarious (2.56)
Is vital, energetic, lively (1.98)	Self-dramatizing (2.65)
Pushes and tries to stretch limits (2.33)	Talkative (2.70)
Is helpful and cooperative (4.85)	Has a wide range of interests (4.86)
Has high standards of performance for self (4.88)	Is productive, gets things done (4.94)
Seeks physical contact with others (4.96)	Has warmth, capacity for close relationships (4.97)
Is attentive and able to concentrate (4.97)	Is moralistic (5.03)
Attempts to transfer blame to others (4.97)	Is concerned with body and adequacy of functioning (5.04)
Tends to go to pieces under stress (7.82)	Basically anxious (7.62)
Cries easily (8.04)	Self-defeating (7.73)
Becomes anxious in unpredictable environment (8.49)	Vulnerable to threat (7.74)
Is fearful and anxious (8.51)	Psychosomatic symptoms (7.76)
Is inhibited and constricted (8.73)	Concerned with adequacy (8.11)

Note. Low scores (1) refer to most uncharacteristic items for the prototype, high scores (9) to most characteristic items for the prototype, and medium scores (5) to items that are not relevant for the prototype.

Mean Social Competence and Shyness Profiles

Because the differences over time and between transition and stable phases were negligible, mean profiles for Social Competence and Shyness in childhood and adulthood were constructed. Table III lists the highest (most characteristic), medium (not relevant), and lowest (most uncharacteristic) ranking items for these mean profiles.[6]

[6]The full 100-item profiles (CQ) and 54-item profiles (CCQ) can be obtained from the first author.

For both phases of the life course, low social competence includes components of anxiety and hostility, whereas high social competence includes social skills and items such as creative and ethical thinking. Low shyness refers to both a lack of behavioral inhibition and to self-assertiveness, whereas high shyness refers to anxiety and vulnerability. It should be noted that personality characteristics with a medium score are judged as being not relevant for a prototype. Inspection of the item contents shows that these are not per definition trivial findings: For example, helpfulness and cooperation are considered relatively not relevant for shyness in children and the same goes for the capacity for close relationships in adults.

The item placements for the social competence profile for the CCQ can be directly compared with the social competence profile provided by Waters et al. (1985), based on the full 100 original items, provided by PhD psychologists. The correlation between the Waters et al.'s profile and our social competence profile (computed over the 54 items that were translated into German) was .89, so even comparable to our interrater correlations. Also, on the extreme items, both CCQ social competence profiles were fairly similar: The items "is admired and sought out by other children" and "gets along well with other children" were the two highest loading items in Waters et al.'s study (item placement 8.9 and 8.4, respectively), and also "creativity," "curious and exploring," and "vital and energetic" were among the high loading items (6.9, 6.6, and 6.7, respectively). For the negative items, "immature behavior under stress" and "fearful and anxious" were placed low in Waters et al.'s profile (2.1, and 2.6, respectively), and also the other three items scored relatively low ("transfers blame on others" [2.9], "is inhibited" [3.0], and "teases other children" [3.4]).

DISCUSSION

The results of this study show an extremely high continuity of the constructs of social competence and shyness, as indicated by stable prototypical descriptions of both traits provided by teachers, both for the period from preschool through adolescence and from adolescence through late adulthood. Continuity of the two constructs was found despite measurement by slightly different item sets, and for descriptions by both children and adults. Furthermore, no systematic differences between the prototypes of these constructs for transitional or stable life phases were found.

In a study by Ford and Miura (1983), four components were found in people's conceptions of social competence: prosocial skills, instrumental skills, social ease, and self-efficacy. In our results, social skills were again found to be a major component of social competence, but so were creative and ethical thinking and a lack of hostility and anxiety. The importance of creativity in the prototypes for social competence might be related to the fact that the prototypes were provided by teachers, who might place high value on these personality characteristics, or to the fact that the prototypes might be related to the specific demand characteristics of the school setting. Studies using raters from different professional backgrounds are therefore needed to test the generalizability of these results. A comparison of our results on the social competence profile in childhood with those of Waters et al. (1985), on the other hand, suggest that, at least for children judged by elementary school teachers versus by psychologists, the differences are negligible.

As regards shyness, Asendorpf (1992) found that behavioral measures such as the latency for first spontaneous utterances, and pauses in conversations, were related to observer judgments of shyness in preschool age and adulthood. Although it should be noted that Asendorpf's study concerned actual judgments of shy children and adults and not people's prototypes, the similarity with the items mentioned in the profiles in the present study is clear.

It is important to note that the item sets used in the two instruments were not designed to measure any specific constructs. Rather, these broad items sets were developed to provide a general language for describing all important aspects of personality (Block, 1961/1978). McCrae, Costa, and Busch (1986), for example, found that the items of the CQ can be used to reconstruct the realm of a taxonomy of trait-descriptive terms as broad as the Big Five. Similar results have been found for the CCQ (Robins, John, & Caspi, 1994; van Lieshout & Haselager, 1994). The broad range of the CCQ and CQ item sets reduces the possibility that the high continuity coefficients were due to an insensitivity in the item pool to possible age-specific behavioral aspects of social competence or shyness.

This possibility is also reduced by the change in item sets between descriptions for childhood and adulthood. Although using the same instrument across the whole life span might seem more appropriate for our research question, this has the disadvantage that the item pool might focus only on very global characteristics. Such an item pool might be insensitive for detecting discontinuity. There might be a trade-off between the age span covered and sensitivity to age-specific measuring. By using the two broad item sets in this study, we tried to find an intermediate solution to this problem.

Referring to Sternberg et al.'s (1981) distinction between "implicit" and "explicit" theories mentioned above, the high continuity found in this study may be interpreted as a lack of age sensitivity in the psychological meaning of the two trait terms and should not be confused with the empirical continuity of the psychological constructs themselves. Of course, it remains to be demonstrated that, in addition to people's conceptions of a trait, similarly high continuities are found when shyness and social competence are assessed by the same behavioral indicators over the full life course. Research with the revised Dimensions of Temperament Survey temperament inventory (Lerner, Palermo, Spiro, & Nesselroade, 1982) has shown that it is possible to develop instruments that cover the whole life span for particular aspects of personality. Such a task is not easy because it must be ensured that the items of such a life span inventory are sensitive enough to detect possible age-related discontinuities. In addition, as described above, at least for shyness the agreements between the prototypes and the actual behavioral correlates in Asendorpf's (1992) study are clearly present. Also, Sternberg et al. (1981) made clear that implicit theories are interesting in their own right because they may suggest aspects of a construct that are overlooked in explicit theories, and because they serve as the basis of everyday, informal assessment. This last aspect may be especially important for social competence because of the societal expectations that are often part of the definition (cf. Zigler & Trickett, 1978). As was made clear in the Introduction, studying people's conceptions of social competence is especially important because of the value judgments involved when assessing social competence. The justification of studying teacher's prototypes of social competence and shyness therefore partly lies in the fact that teachers, or other informants, often are the judges of a person's social competence or shyness, sometimes as participant in psychological research, but more often as providers of information on which decisions in the person's life are made.

A disadvantage of asking for implicit theories is that the raters might intuitively make an age adjustment of the meaning of specific behaviors. This might attenuate the differences across age and thus may lead to a spuriously high continuity. It would take the large investments of behavioral observation at all life phases to test the explicit theories of social competence and shyness. A similar attenuation effect may have obscured differences in continuity across transitional and stable life phases. The methodology developed by Asendorpf (1992) could be applied to compare the homotypic continuity of shyness or social competence with behavioral observation data for at least one major life transition and the subsequent stable life period, for example, for the first months in a new group of peers versus the last months in the same group after a long process of group socialization. Such a study seems particularly useful for shyness because the nature of shyness appears to change between these two periods (see Asendorpf, 1990).

This study confirmed the high continuity for the construct of shyness between preschool age and adulthood found by Asendorpf (1992) and extended this finding to late adulthood. The same high continuity was found for the construct of social competence. These results provide an empirical base for deciding whether social competence or shyness should be operationalized by different empirical indicators at different ages or in different phases of a life transition. The present study suggests that they should not, at least not in judgmental studies that cover the age span from early childhood to adolescence, or from adolescence to old age. This is an important conclusion, particularly for research on the long-term stability of shyness or social competence because it justifies the use of the same assessment instrument for diverse age groups. Furthermore, knowledge about the high homotypic continuity of these two traits may help to reduce the present diversity of age-specific assessment instruments for these traits.

Finally, the extent to which the results of the present study can be generalized to other personality traits remains open. The methodologies developed by Asendorpf (1992) and in the present study can be applied to other domains of personality as well and it can be useful to evaluate the continuity of other traits with this or a similar methodology. Personality and developmental psychology need such studies to ground the assessment of personality across the life span upon a firmer empirical base.

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