

Social Intelligence and Competencies

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Abstract

This article reviews and integrates research on social intelligence and competence. Firstly, the differences in the definitions of abilities, skills, intelligence, competence, individuals' potentials, and behavior are described. Secondly, theoretical models and measurement methods of social intelligence are contrasted, and requirements for social cognitive ability tasks are established. Thirdly, some representative conceptualizations of social competence are systematically compared and integrated into a framework of socially competent behavior that differentiates between the individual's potential and the resulting behavior. Finally, measurement issues of social skills and competence are discussed (e.g., accounting for situational variability and the question of adequate outcome criteria).

Introduction

During the last decades, new constructs (e.g., emotional and social intelligence, see Mayer et al., 2000; Weis and Süß, 2005 for overviews) in addition to the classical academic understanding of intelligence and personality have been considered capable of describing human attributes more comprehensively. Although still facing methodological problems, emotional intelligence attained the most prominent position (Lievens and Chan, 2010), while social intelligence with the longest history languishes in stagnation (Conzelmann et al., 2013; Landy, 2006; Weis and Süß, 2005). At the same time, social skills and competence received increased attention in applied disciplines such as personnel selection and development, clinical psychology (e.g., autism), and in school settings.

This article describes and integrates the various approaches to specify and assess social intelligence and competence. In the following sections, we deal with the terminology as applied in this article, the construct of social intelligence, and finally we describe and integrate conceptualizations of social competence into a framework of socially competent behavior.

Terminology

Imagine the following situation:

Paul, a team leader in a large corporation, has been asked by his superior, David, to hand in the annual team report earlier than expected. The report is in part the basis for salary increases. At the moment, one of his subordinates, Andrea, is faced with an ongoing divorce. He depends on her contribution to finish the report.

What are the resources Paul needs to accomplish the situation? Apart from abstract academic abilities (e.g., verbal reasoning or retrieval abilities), expert knowledge, and behavioral and cognitive skills (e.g., computer skills or writing skills), his social and emotional abilities and skills can be helpful to accomplish the situation:

1. Social cognitive abilities (e.g., interpret David's verbal and nonverbal behavior in terms of the severity of the situation;

anticipate how Andrea will feel when he has to confront her with the problem).

2. Social knowledge (e.g., knowing possible action alternatives or how Paul himself can emotionally cope with the situation in order to function effectively).
3. Social behavioral and cognitive skills (e.g., communication skills such as sending the appropriate nonverbal cues when talking to Andrea, skills in self-regulation such as being capable of applying techniques to adapt to the situation).

All the above-mentioned concepts allow the assessment of individuals as more or less capable, more or less skilled, and so on. Apart from these cognitive and behavioral resources, what are further individual determinants of Paul's behavior?

- a. Paul's short-term goals (e.g., Paul might be willing to present himself as an understanding person because he is in love with a colleague, Andrea, and wants to make a good impression).
- b. Paul's long-term goals (e.g., Paul might have a job offer that he is planning to accept so that he doesn't care about the deadline).
- c. Paul's general interests, motivations, and beliefs (e.g., Paul might believe that everyone is responsible for his or her own good and, thus, does not feel responsible for Andrea).
- d. Personality traits (i.e., Paul could be a highly agreeable person increasing the probability for respectful behavior in this specific situation).

Last but not least, the characteristics of the situation as well as the cultural context will influence his behavior (e.g., Paul might adjust his behavior when he finds Andrea drenched in tears after a conversation with her husband. If the corporation has a good working atmosphere, the probability of him being more understanding is greater).

Considering all the aforementioned characteristics and behavioral alternatives, what determines whether Paul can be evaluated as socially competent? Is it enough to possess the cognitive and behavioral resources (1–3) so that he could behave competently if he wanted to? Is he only a socially competent person when he attains his personal goals? Or is it necessary that his behavior, those short- or long-term goals or

his beliefs (a–d) which guided his behavior, are socially acceptable?

The above list of individual resources may not be exhaustive and does not go into the details of the concepts mentioned. It does not address how the different abilities and skills overlap or affect each other. However, it exemplifies the following terminological specifications.

Intelligence versus Competencies

The concepts of intelligence and competence are often applied as synonyms (Süß et al., 2005). Some distinctive features commonly accepted in the literature are the context-specificity of competence (Kanning, 2002; McFall, 1982) and the more general meaning of intelligence constructs across situations or contexts (Süß et al., 2005). Competence appears to be more subject to modification and learning (Rose-Krasnor, 1997), whereas intelligence is comparatively stable over time and seen as hereditary to a large extent (see Deary et al., 2006 for an overview). However, intelligence is often a necessary part of the evaluation of competence (Süß et al., 2005).

Abilities versus Skills

According to Scherer (2007), behavioral or cognitive skills are concrete actions or applications of cognitive operations on concretely defined problems (e.g., driving with a stick shift or applying an algorithm on new data). Skills are acquired in a process of several steps and are finally characterized by an automated series of actions (Ackerman, 1987). Thus, there is reason to infer that skills are either the successful application of situation-specific knowledge or even procedural knowledge itself. In contrast, abilities are only cognitive in nature and represent more general, dispositional capacities (Süß et al., 2005). They typically constitute intelligence constructs (e.g., reasoning ability) and thus, are “either genetically endowed or acquired over a long period of socialization” (Scherer, 2007, p. 103). Besides abilities, skills are typically part of an evaluation of competence.

Potential versus Behavioral Performance

The individual’s potential represents all resources of a person, which are necessary to allow competent behavior (i.e., the result) (Süß et al., 2005). Results-oriented approaches understand social competence as effective and/or socially accepted behavior where effectiveness/social acceptance is determined through the degree of goal attainment, specific properties of the situation, and the person who assesses whether and to what degree the behavior points toward social competence (McFall, 1982; Rose-Krasnor, 1997). Whether a person shows effective behavior is not a deterministic function of his or her potential. Additionally, it depends on the person’s priorities (e.g., motivation and goals), his or her personality (e.g., extraversion and agreeableness), current states (e.g., fear, exhaustion, and distraction), and on situational and context variables (e.g., broad cultural or group values) (Süß et al., 2005).

While the distinction between potential and result is self-evident in research focusing on abstract academic intelligence (i.e., assessing indicators of job performance as behavioral

criterion to prove predictive validity of intelligence constructs), this may not apply in the context of social intelligence, where results-oriented approaches are frequently applied to conclude from behavior to the potential (e.g., Assessment Center exercises; Hoffman et al., 2011).

Requirements for an Intelligence Construct

With the introduction of new constructs, the diversity of labels (e.g., social skills, social and emotional competence and intelligence, and successful intelligence) and assessment approaches (e.g., ability tests, self-report inventories, and Situational Judgment Tests) has increased. However, there are many conceptual and methodological requirements to determine how well an intelligence construct is established (Landy, 2006; Matthews et al., 2005; Schaie, 2001; Weber and Westmeyer, 2001). Some commonly agreed upon requirements established in the literature are (see also Conzelmann et al., 2013):

1. Theory and construct specification

Matthews et al. (2005) require a priori theoretical considerations on the “localization of the intended construct within the sphere of individual differences” (p. 80). O’Sullivan (1983) demands a clear and nonredundant terminology while Süß (2001) asks for an empirical foundation. Additionally, constructs and subconstructs need to be defined and categorized taking existing hierarchical structures including broad, cognitive determinants (Carroll, 1993) into account which are relatively stable over time and contain a minimum amount of knowledge (Süß, 2001).

2. Operationalizations and validation

With respect to the psychometric qualities, Matthews et al. (2005) and Weber and Westmeyer (2001) demand psychometrically sound operationalizations congruent with construct specifications (O’Sullivan, 1983). Moreover, performance tests should be applied (Süß, 2001; Weber and Westmeyer, 2001) in the sense of Cattell’s conception of T-data (Cattell, 1965). To investigate the convergent and divergent construct validity, adequate operationalizations for the construct of reference have to be selected (Schaie, 2001). Concerning criterion validity, studies have to provide evidence for the incremental predictive validity of heterogeneous external criteria over and above traditional predictor variables (Süß, 2001).

3. Other requirements

Genetic determination to a reasonable extent is an unquestioned requirement (Austin and Saklofske, 2005), whereas there is no agreement about a positive correlation to age due to increased experience as postulated by Schaie (2001). The latter is in conflict with the requirement of only a minimum amount of knowledge in construct specifications (Süß, 2001). Moreover, it contradicts findings about fluid intelligence yielding a generally curvilinear relationship with age (Schaie, 1994).

Among others, Austin and Saklofske (2005), Gottfredson (2003) and Neubauer and Freudenthaler (2005) all demand positive correlations between tasks of academic and new intelligence constructs to underpin the idea of the

positive manifold (Jensen, 1998). This view is questioned by some other groups of researchers (e.g., Guttman, 1992; Henry et al., 2005; Horn, 1985). For a comprehensive picture of the entire debate, see Bowman et al. (2002). At the moment, there appears to be no necessity to assume positive correlations with academic intelligence as a 'conditio sine qua non' for new intelligence constructs.

Social Intelligence

In a model of social competence, social intelligence represents one of the core individual resources. Several literature reviews exist (Landy, 2006; Walker and Foley, 1973; Weis and Süß, 2005) which sum up the research history that was castigated by Landy (2006) as a 'long, frustrating, and fruitless search.' The problems are manifold: definitions did not differentiate between cognitive and behavioral requirements, or abilities and skills (Conzelmann et al., 2013). Frequently, self-report inventories were applied (Riggio, 1986). The majority of performance tests were based on verbal material only (e.g., Chapin Social Insight Test; Chapin, 1967) and showed no divergent construct validity with tests of academic intelligence.

The following sections intend to give an overview of the conceptual basis of social intelligence as a cognitive ability construct of existing measurement approaches and of current data.

Theoretical Models

Apart from numerous single definitions, two more comprehensive theoretical approaches are apparent in the literature. Guilford's Structure of Intellect Model (Guilford, 1967) integrates a social content component in addition to abstract academic abilities that results in 30 distinct ability factors of social intelligence (in a revision of the model assumed to be correlated). The entire model, however, was not supported by data (Brody, 2000). Weis and Süß (2005) classify existing definitions as all addressing some social cognitive ability. This resulted in a Model of Social Intelligence based on four presumably correlated social cognitive ability factors (i.e., understanding, memory, perception, and flexibility) plus social knowledge and a higher-order social intelligence factor. Social knowledge, however, is not seen to rely on only cognitive requirements because knowledge contents always depend on situational or cultural influences. For a list of concepts and labels assigned to the four ability domains, see Conzelmann et al. (2013). The four domains were specified as follows:

- Social understanding (also social inference, social interpretation, or social judgment): the ability to understand social stimuli against the background of the given social situation.
- Social memory: the ability to store and recall objectively given social information that can vary in complexity.
- Social perception: the ability to perceive socially relevant information quickly in fairly complex situations.
- Social flexibility: the ability to produce as many and as diverse solutions or explanations as possible for a social situation or a social problem.

The model was partly supported in a multitrait-multimethod study (Weis and Süß, 2007) applying established tests for social understanding and social knowledge and newly constructed tests for social memory. The confirmatory factor model showing the best fit specified three separable but correlated ability factors (i.e., social understanding, social memory, and social knowledge) and one method factor with loadings of all tests based on verbal material (i.e., written language). However, social memory was not sufficiently distinguishable from academic intelligence (Conzelmann et al., 2013) to be considered as a unique social intelligence factor.

The relationship of social to emotional intelligence has not so far been developed in detail. On a broad construct level, several researchers agree on an as yet unspecified overlap (Davies et al., 1998; Mayer et al., 2000). Few studies have investigated the relationship (Davies et al., 1998; Weis and Süß, 2007) and those have found inconsistent results. Regarding the Four Branch Model of Emotional Intelligence (Mayer et al., 2000) and the above-mentioned Model of Social Intelligence (Conzelmann et al., 2013), the domains of perception and understanding are represented in both models. Meanwhile, social contents cover information about emotions but also reach further. However, the question of construct overlap needs more profound empirical clarification based on measures derived from and validated by these or other theoretical models.

Measurement Approaches

In this report, we are only focusing on cognitive ability tests and are omitting self-reported inventories and behavior-based approaches because they do not comply with the aforementioned requirements. Compared to the construction of academic intelligence tests, no comparable body of rules is available for items or tasks of social intelligence. In contrast to tasks such as number series, the item pool is not documented and possibly not even available. The particular tasks that measure social cognitive abilities are not specifically taught in institutional settings. Therefore, numerous characteristics of social intelligence tasks can be identified. Table 1 provides exemplary psychometric tests representative for the variability of measurement approaches:

- Comprehensive test batteries based on theoretical models (e.g., Magdeburg Test of Social Intelligence, MTSI, Conzelmann et al., 2013) versus single modalities.
- Different task materials (i.e., written and spoken language, pictures, and videos).
- Different item characteristics (i.e., item origin, stimulus properties, and context information).
- Different formal characteristics (i.e., response format and scoring).
- Different queried modalities in social understanding tasks (i.e., what modality has the subject to infer about such as emotions, thoughts, and relationships).

Additionally, Table 1 contains short global validity information. For reasons of comparison, the Model of Social Intelligence (Conzelmann et al., 2013) serves as a frame of reference for the classifications of task requirements.

Empirical evidence concerning the convergent and discriminant construct validity is equivocal and varies

Table 1 Characteristics of social cognitive ability tasks showing representative example tests

Example test	Taxonomic classifications								Validity (convergent/ discriminant)
	Domain	Material	Item origin	Stimulus properties	Context information	Response format	Scoring	Queried modality ^a	
Social Insight Test (Chapin, 1967)	SU	V	G	EV	AV	MC	GCS	PS	Low/low
Four-Factor Test of Social Intelligence (O'Sullivan and Guilford, 1976)	SU	V P	AR	UV	AV NAV	MC	ECS	E B PS	Low (SI tests), high (tests of same battery)/low
Level of Emotional Awareness Scale (Lane et al., 1990)	SU	V	AR	EV	AV	O	R	E	High/–
Interpersonal Perception Task-15 (Costanzo and Archer, 1993)	SU	F	G	EV	AV	MC	SBS	T R B	Low to medium/high
Diagnostic Analysis of Nonverbal Accuracy Scale (Nowicki and Duke, 2001)	SU	A P	P	EV	NAV	MC	SBS	E	High (with DANVA subtests)/–
Facial Emotion Inspection Time Task (Austin, 2004)	SP	P	AR, P	EV	NAV	RT	SBS	E	High (with response latency tests)/high (verbal academic intelligence)
Situational Test of Emotional Understanding (MacCann and Roberts, 2008)	SU	V	A	EV	AV	MC LR	SBS GCS	E	High/low (verbal academic intelligence)
Situational Test of Emotional Management (MacCann and Roberts, 2008)	SU	V	G	EV	AV	MC LR	GCS	E B	High/low (verbal academic intelligence)
Magdeburg Test of Social Intelligence (Conzelmann et al., 2013)	SU SM SP	V A P F	G	EV (SU) UV (SM, SP)	AV	MC LR RT	SBS (SM, SP) TS (SU)	E T R PT	–/high (SU with academic intelligence, medium (SM and SP with academic intelligence)

Note: SU: social understanding, SM: social memory, SP: social perception, V: written language, A: spoken language, P: pictures, F: video film, G: genuine, AR: artificial, P: posed, EV: equivocal, UV: univocal, AV: available, NAV: not available, MC: multiple choice, LR: Likert ratings, O: open, RT: response latency, R: rating of open answers, SBS: standards based, TS: target scoring, GCS: group consensus scoring, ECS: expert consensus scoring, Low: no sufficient convergent or discriminant validity evidence, High: good convergent or discriminant validity evidence, –: no information available.

^aOnly relevant for tasks of social understanding: E: emotions, T: thoughts, RS: relationships, PT: personality traits, B: future behavior, PS: problem solutions.

substantially in connection with task characteristics just as does the psychometric quality (see Weis and Süß, 2005 for a review). To summarize, applying decontextualized, artificially produced material based on written language resulted in substantial correlations with tasks of abstract academic intelligence, thus questioning the discriminant construct validity (e.g., Chapin Social Insight Test, Chapin, 1967). Additionally, not accounting for the queried modality seemed to impair convergent construct validity (Ambady et al., 2001), just as did different response formats.

Tasks of social understanding that require inferring the mental states of target individuals or offering possible explanations or solutions for complex social problems carry additional problems. Particularly, the application of equivocal stimuli without context information makes inference about any mental state highly difficult or even impossible. Another, so far unsolved problem demonstrated in research on emotional intelligence, is the scoring of tasks when no standard (i.e., objectively correct answer) is available. All scoring methods apart from standards-based scoring (i.e., target scoring and expert or group consensus scoring) carry different problems (see Conzelmann et al., 2013 for a discussion). In short, we consider target scoring rather than expert or group consensus scoring as the best known approximation to

objective scoring when questions of social desirability are accounted for and the target's mental state can be defined by means of standardized procedures.

As a conclusion from the above considerations and the empirical literature, the MTSI (Conzelmann et al., 2013) was developed to account for some necessary requirements for social cognitive abilities tasks:

- Theoretical foundation: Task and item construction was founded in the Model of Social Intelligence.
- Multitrait–multimethod/multimodality designs: The systematic variation of task material (i.e., written and spoken language, pictures, and videos) resulted in better interpretable validity evidence and a smaller overlap with the abstract academic intelligence of past studies (Weis and Süß, 2007; Wong et al., 1995).
- Origin of stimulus material: In contrast to artificial or posed material, stimuli with real-life origins (i.e., particularly material other than written language) enhance the ecological validity and the acceptance and promote discriminant construct validity with abstract academic intelligence (e.g., IPT-15, Costanzo and Archer, 1993). Moreover, target information or even objective standards can be sampled for scoring. Transfer to real-life situations is more probable.

- Context information: Tasks with equivocal stimulus material (i.e., tasks of social understanding) should provide enough context information to allow correct inferences. When context information is embedded in stimulus material, it should be varied systematically in order to reduce the context- or situation-specific influence (e.g., through experience or knowledge) to a minimum.

Finally, social intelligence as assessed by existing measurement approaches still lacks evidence for its predictive validity in relevant, real-life outcome criteria. One criterion validity study was conducted by [Hampel et al. \(2011\)](#) applying the MTSI and finding the theory-consistent relations with the level of social anxiety in a general population sample.

Social Competence

We consider social competence as the entity of all individual resources (i.e., the potential) necessary to show social competent behavior in varying types of applied settings (adapted from [Kanning, 2002](#)). The following sections give an overview of existing conceptual approaches and integrate them into a framework of social competent behavior. Later, measurement issues are addressed.

Concepts: Comparison and Integration

Definitions of social competence vary substantially according to the spectrum of covered human attributes from just one characteristic (e.g., management of conflict and communication skills) to a complex interaction of assorted variables (see [Rose-Krasnor, 1997](#); [Nangle et al., 2010](#) for reviews). They may either focus on the person's potential, or the behavioral result, or a mixture of both. Additionally, some definitions only incorporate concepts, which allow a evaluation of a person's underlying competence as opposed to definitions that also include individual dispositions or traits (e.g., personality and motivation), not allowing an evaluation of 'better or worse' ([Rose-Krasnor, 1997](#); [Schneider et al., 1996](#)). [Table 2](#) contrasts some selected, comprehensive, and representative approaches.

By definition, the four approaches ([Table 2](#)) show substantial differences. [McFall \(1982\)](#) developed a process model, which allows for individual characteristics (i.e., skills) besides situational variables, behavior, and the person who evaluates the behavior. Contrary to the other three mentioned, [Schneider et al. \(1996\)](#) conceive social competence as independent from situations, and assessment about the level of competence is only based on the degree of goal attainment. This is in contrast to social acceptance which is relevant in the concepts of [Rose-Krasnor \(1997\)](#) and [Kanning \(2002\)](#).

Table 2 Definitions of social competence

		<i>McFall (1982)</i>	<i>Schneider et al. (1996)</i>	<i>Rose-Krasnor (1997)</i>	<i>Kanning (2002)</i>
Definitions		<p>"Social skills are defined [] as the specific abilities that enable a person to perform competently at particular social tasks." (p. 23)</p> <p>"Competence is a generally evaluative term that reflects somebody's judgment, on the basis of certain criteria, that a person's performance on some task is adequate." (p. 13)</p>	<p>"We define social competence as socially effective behavior and its cognitive, affective and conative antecedents. Socially effective behavior is behavior that is instrumental in helping people achieve personal goals that are social in nature." (p. 471)</p>	<p>"... effectiveness in interaction, considered from both self and other perspectives. Social competence is viewed as an organizing construct, with transactional, context-dependent, performance oriented, and goal-specific characteristics." (p. 123)</p>	<p>Entity of a person's knowledge, abilities, and skills which promote socially competent behavior (=context-specific behavior for attaining a personal goal accounting for the social acceptance of the behavior).</p>
Domains	Abilities	(Skills specified as abilities, see definitions above)	Social intelligence (social insight, memory, knowledge)	Emotional understanding	Social perception
	Skills/knowledge	Decoding skills, decision skills, encoding skills	Social skills, social self-regulation	Problem-solving skills, communication skills, self-control	Behavioral control, assertiveness, communication skills
	Traits	–	Interpersonal personality traits	Motivation, personality traits, prosocial behavior	Social orientation
Orientation		Process	Potential and behavior	Behavior	Potential
Specific to situation		Yes	No	Yes	Yes
Evaluating perspective		Evaluator (x situation x performer)	Goal attainment	Goal attainment and social acceptance	Goal attainment and social acceptance

Table adapted and complemented from Süß, H.-M., Weis, S., Seidel, K., 2005. Soziale Kompetenzen [Social Competences]. In: Weber, H., Rammsayer, T. (Eds.), *Handbuch der Persönlichkeitspsychologie und Differentiellen Psychologie*, (Reihe Handbuch der Psychologie) [Handbook of Personality Psychology and Differential Psychology]. Hogrefe, Göttingen, pp. 350–362.

However, leaving the broad level of definitions and looking at the single postulated dimensions of social competence, the approaches overlap. Except for McFall's process model that relies only on social skills, the remaining three approaches incorporate abilities (e.g., emotional understanding and social perception), skills (e.g., decoding skills and self-control), as well as behavioral dispositions (e.g., social orientation, personality traits, and motivation).

Based on the above-mentioned predefinitions, concepts are integrated into a framework of socially competent behavior (see Figure 1; modified based on Süß et al., 2005).

Summarizing the above considerations, the framework is specified as follows:

1. Social competence consists of a person's potential and does not include overt behavior in applied setting.
2. The person's potential only includes those constructs and concepts that allow a evaluation of 'better or worse' (i.e., abilities and skills). Any dispositional constructs (i.e., personality and attitudes) are left out although we acknowledge that they ultimately influence the probability of social competent behavior.
3. Within the person's potential, cognitive abilities (i.e., social and emotional intelligence, which are assumed to overlap), skills, and knowledge concepts are clearly differentiated. Abilities are broad, situation independent, relatively stable,
4. Socially competent behavior is predicted by the individual's level of social competence (represented by the solid arrows in Figure 1) over and above variables in disposition or temperament. As indicated by the different strength of the

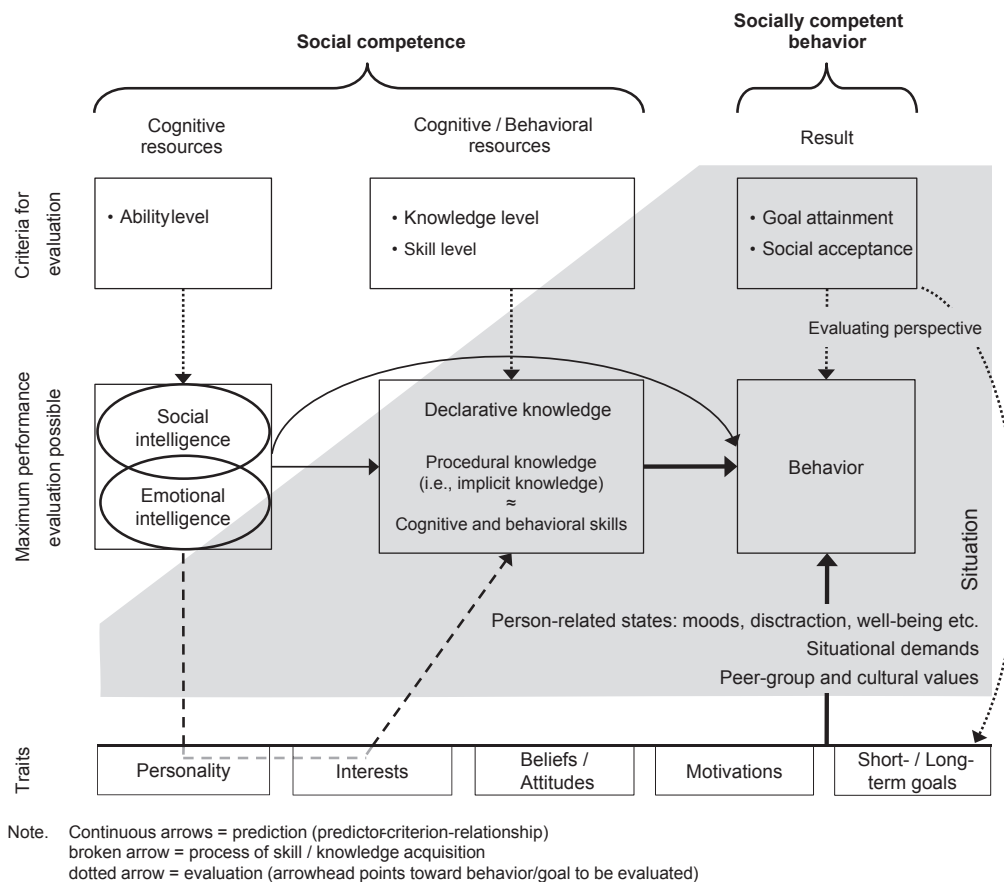


Figure 1 Framework of social competence and socially competent behavior.

arrows, we assume a larger predictive power of skills and knowledge compared to abilities that are due to construct and measurement similarities. Moreover, social cognitive abilities, social skills, and declarative knowledge are assumed to be positively related constructs.

5. In accordance with the PPIK-Theory (i.e., Process–Personality–Interest–Knowledge, [Ackerman, 1996](#)), skills (seen as almost equal to procedural knowledge) and declarative knowledge are acquired by the investment of fluid intelligence (i.e., social and emotional intelligence) into areas of interest and which fit to the individual's personality (indicated by the broken arrows in [Figure 1](#)).
6. Abilities and declarative knowledge are typically assessed by psychometric tests so that the assessment (indicated by dotted arrows in [Figure 1](#)) of 'more or less able' or 'more or less knowing' is based on the test score independent of an analyzing perspective (i.e., objectivity). Measuring procedural knowledge or skills is more difficult although still remains independent of subjective interpretation. Whether the demonstration of social behavior is evaluated as socially competent primarily depends on the attainment of the behavioral goals of the individual. Additionally, when social behavior (or its underlying goal) is evaluated based on its social acceptance, the evaluating perspective needs to be considered as well (e.g., individuals from different cultural backgrounds or different peer groups may find differing behavioral actions socially acceptable) ([McFall, 1982](#)). These assumptions also mean that an assessment of an individual's social competence based only on his or her behavior in highly complex, applied situations should not be done or only done carefully when a goal is not predetermined (e.g., selection situations) and the situation allows unsystematic influences of conflicting variables that should not be the basis for assessment (e.g., the relevant peer group is not known). In such situations, several reasons for showing or not showing socially competent behavior may exist apart from a lack of social competence.

Measurement and Design Issues

The landscape of measurement approaches for social skills and social behavior is even more heterogeneous than for social intelligence. [Table 3](#) presents three classes of measurement approaches (i.e., inventories, knowledge tests, and behavioral assessment) cross-classified with constructs including a global assessment of the construction efforts, the possibility of response distortion, and the objectivity. (For a more profound

review of measurement approaches to assess social and emotional skills in children and young people, see [Humphrey et al., 2011](#).)

Self-reported and other similar inventories are easily constructed and highly objective but carry the problem of response distortion, particularly in relation with constructs involving evaluation. Implicit knowledge tests (also Situational Judgment Tests, see [McDaniel et al., 2007](#) for a meta-analysis) allow an objective assessment of procedural knowledge and cognitive and behavioral skills that typically cannot be distorted by the subject. The testing principle presents a description of a situation and a number of answering alternatives providing explanations, solutions, or possible behavioral actions. In multiple choice or ratings-based items, individuals have to evaluate the effectiveness of the behavioral actions for solving a given problem or reaching a goal. Although item contents frequently address the behavior, the *knowledge* about behavior is assessed instead (\approx procedural knowledge \approx cognitive and behavioral skills). The last category of measurement approaches comprises behavioral observation methods. Observations can be done in experimental or applied settings (e.g., Assessment Center exercises such as role plays). To evaluate social skills or procedural knowledge, specific experimental settings would be required to provoke people to show their ideal behavior and to reduce variance due to states or confounding personality variables in applied settings (e.g., through instructional variations). Socially competent behavior should be assessed in applied settings or, at least, settings with a certain level of complexity so that an average behavioral reaction has little or no chance of occurring. Behavioral observation is a highly complex research field of its own and the problems are multifaceted (i.e., reactivity and participatory observation; social desirability, finding an adequate rating system and inter-rater-reliability; time versus event sampling; and interdependence with exercise; see [Hoffman et al., 2011](#)).

Across all three types of measurement approaches, situational variability is a relevant feature. [Nangle et al. \(2011\)](#) provide some examples of (incomplete) classification systems of situations or social tasks and stress their importance not only for purposes of conceptualization and measurement but also for the identification of treatment opportunities. Additionally, specifying the characteristics of the situation also helps in evaluating the degree of generalization of empirical findings.

As pictured in [Figure 1](#), socially competent behavior is the outcome of social competence which brings us back to the lack of criterion validity studies for social intelligence. Examining the specifications of the above framework not only provides information about the model itself, but also about the criterion validity of social intelligence given an adequate selection of

Table 3 Categories of measurement approaches to assess procedural knowledge, skills, and behavior

	Procedural knowledge/skills			Behavior		
	Construction effort	Response distortion	Objectivity	Construction effort	Response distortion	Objectivity
Self- and other report	Low	High	High	Low	High	High
(Implicit) knowledge test	High	Low	High	–	–	–
Behavioral observation	High	Low	High	High	Medium	Low

relevant behavioral outcome criteria. In this respect, [Lievens and Chan \(2010\)](#) suggest to determine thoroughly what social intelligence should be valid for and what not. For example, they miss a theoretical basis for investigating the prediction of academic performance by emotional intelligence. In general, the predictive value of social intelligence, knowledge, and skills is different depending on the chosen outcome criterion. Moreover, the selection of outcome criteria needs to consider the hierarchical structures of predictors and criteria ([Brunswick, 1956](#)). Only when symmetrical levels in the hierarchy are chosen, the maximum predictability is achieved.

Conclusion

Particularly in the last sections, more questions were posed than answered. And we cannot, at that point, evaluate whether Paul – remember our leading character in the introduction – is a socially competent person without acknowledging several situational characteristics and his behavioral goals which we currently do not know about. To progress substantially in this field of research, several challenges need to be conquered. Conceptual issues have to be addressed empirically (e.g., the suggested framework of socially competent behavior requires empirical substantiation through multivariate research designs). Future research should focus on the development and improvement of measures of not only abilities but also procedural and declarative social knowledge and social skills. Several methodological problems have to be faced of which only one important is the development and use of a scoring procedure that is as objective as possible. In the field of social and emotional intelligence, some objective tests are already being applied (e.g., [Conzelmann et al., 2013](#); [Wilhelm et al., 2010](#)), but it will be important to examine to which degree such an objective approach is possible taking into account the aforementioned complexity of the variables. Identifying both, the sources of situational variability (i.e., what are situational attributes that contribute to the variability in social behavior) and adequate and relevant real-life outcome criteria for social intelligence, should be further major aims. The latter is a particularly challenging issue since adequate social criteria are often highly specific and make transfer to practice very difficult. Although we mainly have dealt with the potential of an individual what is considered to be subject of change to only a limited degree, the extent to which trainability is possible (i.e., particularly considering the level of knowledge and skills) has to be investigated.

Last but not least, researchers who want to face these challenges should, at the very beginning of the undertaking, clarify whether social competence is conceived a value-free concept in the sense that not the behavioral goals are evaluated but only the degree of goal attainment. Otherwise, the value of not only goals but also personality characteristics needs to be identified (e.g., against the cultural background) prior to determine the degree of social competence. Facing these challenges and making progress seems to be a hard but worthwhile task. Should there be objective, reliable, and valid measures for social abilities, knowledge and skills, and appropriate methods to train aspects of the discussed constructs in the future, many different applied settings both personal and work could profit.

See also: Emotion, Perception and Expression of; Emotional Intelligence and Competencies; Facial Perception; Intelligence: Central Conceptions and Psychometric Models; Personal Intelligence and Competencies; Situational Judgment Test; Wisdom, Psychology of.

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