The Role of Counseling in the Development of Gifted Students' Actiotopes: Theoretical Background and Exemplary Application of the 11-SCC

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Conception of Giftedness

When we assert that an individual is gifted, in essence we are saying that this individual can eventually display excellence in one or more areas. However, how can we substantiate this allegation? First, we must consider which excellent actions an individual may be able to execute at some point in time. For instance, this could be the publication of a successful novel, running 100 meters in less than 10 seconds, or being able to play a difficult musical composition on the violin. Each of these actions demands the command of unique competencies. If giftedness researchers are able to recognize that, with optimal encouragement, such a high level of proficiency can be reached, then we can maintain that we were

able to identify a *learning path* for an individual. Put another way, a learning path bridges the distance between the current state of performance and a state that can be referred to as excellent performance (Ziegler & Stoeger, 2004a). Of course, a research scientist cannot merely rely on his or her intuition here; rather, an assessment of this type should be made based on theories of expertise acquisition in a specific domain and a judgment made on a well-founded diagnosis of the *actiotope* (to be defined later) of this person.

This view of giftedness is, in the first place, rooted in learning theory (Ericsson, 2002). It is supported by evidence gained from biographical research (Simonton, 2003; Weisberg, 2003) and expertise research (Ericsson, 2003; Howe, Davidson, & Sloboda, 1998). Indeed, there exists ample documentation of the finding that the time needed to attain the state of excellence is exceptionally long, generally a minimum of 10 years. Allegations of cases in which persons have been able to realize extraordinary achievements in shorter periods of time have proven either to be unfounded or are based on findings attained with methodological practices that are somewhat questionable (e.g., Simonton, 2000). Characteristic of this 10-year interval is intensive practice and training governed by the permanent goal to improve one's own performance. This constant expansion of one's own achievement boundaries can be perceived as being rather arduous and in some cases is found to be aversive, a finding that refutes the cliché that learning is nothing but child's play for the gifted (Howe et al.).

Our conception of giftedness is, in the second place, characterized by a rejection of the customary focus of giftedness research that concentrates on traits—for the most part intelligence—and a shift of interest onto the *actions* of a person. This perspective, at first seemingly unusual, is supported by common intuition. For example, in 1903 Marie Curie was awarded the Nobel Prize for Physics not on the basis of her outstanding talents, but rather on the basis of her actions: "In recognition of the extraordinary services they [Mme Curie and her colleagues] have rendered by their joint researches on the radiation phenomena discovered by Professor Henri Becquerel" (Nobelprize.org, n.d., ¶ 2). In 1911 she was awarded the Nobel Prize for Chemistry "in recognition of her services to the advancement of chemistry by the discovery of the elements radium and polonium, by the isolation of radium and the study of the nature and compounds of this remarkable element" (Fröman, n.d., ¶ 31). At the core of our approach are, so to speak, excellent actions. Therefore, if we ask ourselves, "What was it that put the scientist Marie Curie into the position of making these discoveries?" the answer is not simply her IQ. Her IQ presumably did not change much between the age of 6 and adulthood, and she did not make her discoveries at the age of 6. The answer is rather to be found in a closer examination of her learning path, over which she was able to cultivate a unique action repertoire, which is the competence to execute excellent actions. These actions were recognized with the bestowal of the highest distinctions possible for scientific works.

The third feature of our approach is that it is based on systems theory. In contrast to the dominant focus on individual personality characteristics such as intelligence or creativity, we exercise a holistic perspective and consider the systemic interaction among several components. In our Actiotope Model of Giftedness (Ziegler, 2005) we draw direct analogies to terminology used in biology (biotope) and sociology (sociotope). The term *biotope* refers literally to a living space or place of life. It is largely characterized by abiotic factors such as a brook or a valley. The spatial criterion defining the boundaries is reflected by the ecosystem of the various species that inhabit a specific biotope. Thus, a biotope is the place where a specific biological community is found. The term *sociotope* refers literally to a living space of social entities. Sociotopes also demonstrate a close relationship between the space that is being inhabited (e.g., apartment house, factory, neighborhood) and the social entities that occupy them (e.g., family, employees, neighbors). Thus, a sociotope is the place where a specific social community is found.

An *actiotope*, in contrast, is defined by the actions taken by an individual. In order to ensure that these actions are successful, the individual has access to genetically fixed information, which has been accumulated over the long period of adaptation experienced by the species in the biotope (e.g., breathing, use of speech organs). The individual also has access to information about successful actions, which have been amassed through the generations of social communities, and which have been preserved, developed further, and passed on to individuals in the community (e.g., moral norms, cultural techniques, traditions). In addition to this social and biological knowledge, an individual must acquire a wide variety of further behavioral competencies through learning, in order to be able to function successfully in his or her actiotope. This functioning cannot be enabled by either the wisdom contained in the genes of our species or the wisdom contained in the memes of a social community. In principle, each person seeks out a mix of completely individual niches, in which, over the course of a lifetime, the execution of increasingly more successful actions can be learned. Some of these "niches" are of particular interest for giftedness research when they have at least four things in common: (1) We perceive them as domains that belong together, (2) they appear to be of value in a specific context, (3) a uniform standard of excellence exists that can be used to compare the quality of actions executed in these niches, and (4) excellent actions in these niches are rare. Examples of such talent domains, as they can be designated, are music, athletics, or mathematics. Similar to how we can understand the development of a species or a social entity as the result of a progressive adaptation to the conditions of a biotope or sociotope, in our model we consider excellence to be the result of a progressive adaptation of the actiotopes of an individual to the structures in a talent domain. In the next section we will examine the actiotope of an individual from three perspectives: (1) the component perspective; (2) the dynamic perspective, that is, the (successful) adaptation to a talent domain; and (3) the systems perspective.

The Component Perspective

Conceptually, an actiotope can be reduced to four components: the action repertoire, goals, the subjective action space, and the environment. In the following section we offer a short description of each of these four components, as well as a few descriptive illustrations. The *action repertoire* consists of all actions an individual is essentially in the position to execute at a specific point in time. Of course, a person does not have to execute all of these actions. For example, after one has mastered the task of multiplication, one is in the position to calculate innumerable multiplications. However, over the course of a lifetime, one will have to compute only a small fraction of all of the potential multiplications one can possibly compute.

We know many individuals whom we consider to be gifted who do not, however, execute the actions we think a gifted person is capable of. For example, in the media coverage of German sport events, it is not uncommon to come across the declaration that an athlete "seine Leistung nicht abrufen konnte [did not call up his potential]." A possible explanation could be that these actions were not available to him at this point in time, because the action repertoire is subject to several determinants. An example of this would be fatigue, and another would be that the time difference between his last nutritional intake and the sporting event may have been miscalculated.

In order for an individual to execute an action, he must set a *goal*. Let us use the example of test anxiety here for illustrative purposes. Students with test anxiety, when faced with performance situations, are not only pursuing the goal of executing the actions called for (e.g., the solution of multiplication exercises), they are also pursuing self-related goals (Ziegler & Stoeger, 2004b): They do not want to embarrass themselves, and they do not want to disappoint their parents. For example, it may well be the case that while they were preparing for the examination, the mere thought of embarrassing themselves on the test was so aversive that they were no longer in a condition to formulate the goal of preparing for the examination, and rather procrastinated with the entire process.

An individual has a potentially infinite number of actions at his disposal. Therefore, a *subjective action space* must be constructed out of those actions that represent the most appropriate ways of attaining the goal at hand. In many cases, an individual may have actions in his action repertoire that are "overlooked" and subsequently not chosen for inclusion in the subjective action space. An example of such behavior is illustrated by the number of girls talented in mathematics and the natural sciences (Stoeger, 2004), who, despite objectively high talent levels, do not have the self-confidence to see themselves as being able to act successfully in these subjects.

Another reason that an effective action may not be chosen from the action repertoire can possibly be found in the *environment*. This nonselection can also be examined from several points of view, for example, from the perspective of the biotope (if a test is being taken in a loud environment, the student will

not be able to concentrate properly; if the weather is damp or rainy, the track being used by a sprinter will be wet and his or her speed will be reduced) or the perspective of the sociotope (a student may not feel confident enough to contribute during class if the teacher is seen as too stringent; parents who do not support the mathematical engagement displayed by their daughter exercise an influence on her decision to enroll in advanced mathematics courses).

Of particular importance is that sector of the environment we refer to as the *talent domain*, that is, the area in which the individual, following a long learning process, is eventually able to execute excellent actions. The progressive adaptation to the talent domain and the development of an effective action repertoire are the central objects of counseling.

Dynamic Perspective

So far, we have made a static examination of the four components of an actiotope. As already illustrated in the example of Marie Curie, her action repertoire at the age of 6 was by no means sufficient to execute the excellent scientific actions associated with remarkable discoveries in the fields of physics and chemistry. Her actiotope had to be progressively developed. In the Actiotope Model of Giftedness, five aspects of successful adaptation have been specified. By the same token, they can be understood as the prerequisites for successful learning, as well as the conditions forming the foundation for effective interactions with the talent domain, which permit increasingly more efficient actions in the talent domain.

In order for an individual to be able to act in a talent domain effectively, he or she must first be in the position to determine which action will lead to success. Such actions can be retained in reserve or even used as a springboard for the development of further, more successful, actions. In many cases, individuals are not always able to determine whether an action was successful or not. A violin student, who is not playing cleanly and is not able to recognize this fact, will never be able to become a great violinist. When a gifted student does not utilize appropriate learning strategies, and never notices that he is learning inefficiently, he will never attain excellence.

Second, in any situation, an individual must be able to recognize the characteristics that will lead to attaining a specific goal. A basketball player who wants to dribble around an opponent must be able to decide which maneuver will be more effective. When a student is preparing for an oral examination, she should know not to use the techniques that help only in the preparation for a multiple-choice test.

Third, for progressive adaptation to an actiotope, it is also important to be able to engage continual action variations. For example, after 40–50 hours of being occupied in a specific domain, we may reach a satisfactory level of competence, and the phenomenon of arrested performance sets in (Ericsson, 2003). We are now in the position to play chess rather well, or are capable of effec-

tively using a data-processing application on our computer for normal daily practices. Similarly, we often have standard solutions for problems that come up again and again. If an individual wants to improve herself and expands her action repertoire, action variations must be found that will allow for even more effective actions. While most chess players are satisfied with their action repertoires rather early in the course of their association with the game, chess experts are constantly expanding their repertoire of opening moves and are continually searching for better moves for specific positions. In other words, they actively want to find better actions in their talent domain. Similarly, programming experts are not satisfied with standard algorithms, but rather are always on the lookout for newer, better algorithms. Even when stronger chess moves or better algorithms have been found, the attempts at adaptation are by no means ended: Neither the game of chess nor the field of computer science ends with the next best solution. Experts in these areas will always be propelled to search for better action variations.

During the long course of developing an actiotope, unexpected barriers can come to light, such as performance limitations or critical events. Fourthly, an actiotope must therefore, also be anticipative in order to be able to overcome the various types of barriers that can crop up. When, for example, we suggest that a student should transfer to a boarding school for gifted children, we must also be sure that the student has the social competencies at his or her disposal to cope with a prolonged separation from his or her family. When a theoretical physicist is not able to make progress with a specific problem, this may be due to the fact that she erred in anticipating future math challenges while attending college and did not take the appropriate mathematics courses.

In many talent domains the achievement standard is extraordinarily high. Feedback on the success of an individual action is by no means sufficient. Throughout, to the attainment of excellence, adaptations of the actiotope necessitate effective feedback and feed-forward loops. A good example here is the specific trainings developed to improve self-regulated learning. Although students usually have access only to test results to determine whether their learning was successful, the students attending our training (Stoeger & Ziegler, 2005) in the subject of scholastic mathematics were to complete small tests/quizzes on a daily basis over a period of several weeks, on which they could attain a maximum of 10 points. These tests were conceptualized to correlate with the usual difficulty and learning progress experienced by average students in their corresponding grades. The students in our study were able to try out several types of learning strategies over the course of the training and were then able to perfect them. Furthermore, they had access to a feedback loop: They could determine how effective a specific learning strategy was (or was not) by the test associated with this strategy. If the test results declined, they knew that the learning strategy either needed to be improved or was inefficient. In effect, these feedback loops permitted a constant adaptation of the learning behavior of the students, which led to better and better performances. Exceptional feedback loops can be found, for example, in the interactions culti-

vated with mentors, or in interactions with trainers who have often spent years filing away at the small imperfections of their trainees.

System Perspective

Over the course of the long learning process leading to the attainment of excellence, not just one single ability is developed. The most prominent characteristic of this lengthy process is how the components of the actiotope coadapt to one another as a result of successful dynamic interaction with the environment.

Indeed, it is by no means accidental how the action repertoire, subjective action space, goals, and environment of the former World Chess Champion Bobby Fischer interacted at the peak of his career. At the age of 8, Fischer's adaptation to the domain of chess was characterized by studies he was making of reigning chess greats, becoming acquainted with their solutions. The solutions they developed provided him with the first effective expansions of his action repertoire. Each additional expansion of his action repertoire also led to coadaptations. For example, he was able to realize which chess-related goals were linked to specific moves and was able to assimilate them. Many of the moves used by the chess masters, which he was then certainly also in the position to execute, had not yet, however, been incorporated into his subjective action space, because he did not assess them as being very efficient. In his environment at that point, he was not being adequately challenged by suitable chess opponents, and for this reason his mother placed an advertisement in the newspaper and tried to find appropriate chess rivals for him.

When Fischer attained the title of world champion, his environment revolved almost totally around chess, and his daily training partners were among the strongest players in the world. Coadaptations were obvious at several points. When, for example, an effective action to counter a unique opening was missing in his action repertoire and he wanted to be able to execute it in his next tournament, his goal was to expand his action repertoire. He was then able to consider how appropriate specific action variations were for inclusion in his subjective action space and was able to discuss and develop potential action variations for this opening with the numerous chess masters who were now a staple of his environment. Furthermore, from another perspective, his actiotope as world champion allowed for a rather remarkable coadaptation. The fact that he was a professional chess player and was able to make a living from the proceeds of this sport enabled him to devote time to improving this opening instead of having to work in more conventional employment, such as in a factory.

In order for an actiotope to undergo an adaptation, it must, of course, be subject to modification. Fischer was a trailblazer in the struggle to secure better payment for professional chess players. The actiotope of a so-called "state amateur" in the Soviet Union would have been much easier to modify,

because these individuals received payment for 8 hours of chess training per day. However, this status was not possible in the United States at that time. Therefore, when a learning path has been identified for an individual, we need to determine whether a coevolution among the individual components of the actiotope, necessitated by the learning path, can occur. For example, would an individual, in response to a successful learning phase, be able to formulate new goals so that the next learning phase would also be appropriate and productive? Are better trainers, mentors, training partners, or even a better school available, should the current environment not be able to guarantee the optimal conditions required to nurture the individual? The degree to which an actiotope can be modified is in this sense an important area to address in counseling.

One also needs to address the question of whether these often time consuming modifications in an actiotope pose a threat to the stability of the actiotope. The actiotope of an individual on a learning path is not in a state of equilibrium, but rather operates in an unbalanced state. In the field of systems theory, it has been shown that in physical or biological systems this state of unbalance can function only when a form of energy is constantly being fed into it. An application of this aspect into the theory of the actiotope is, however, beyond the scope of this chapter. Instead, we would like to offer two points as examples.

In almost all cases, a strong motivation is necessary to support and maintain the adaptation of an actiotope and the lack of equilibrium associated with this process over long periods of time. Sometimes the environment of the gifted individual is organized in such a manner that alternative actions other than adaptations in the talent domain are more or less unavailable. Recently, we inspected a boarding school for highly gifted students. Extracurricular activities organized by the school were primarily associated with learning activities, such as a well-stocked and inviting library, or special interest groups, which were devoted to learning topics. The students attending this boarding school could and should learn. Common chores (e.g., shopping for groceries) or minor social conflicts were removed from their daily experiences and executed or resolved by attentive, specially trained educational specialists. Social conflicts, for example, were discussed in group meetings and, when they appeared to threaten learning progress, professional countermeasures were undertaken. The entire environment was completely focused on making optimal learning progress and success possible over a long period of time, as well as ensuring the stability of an actiotope in the academic area, which was in a constant state of adaptation.

In many of the cases we encounter as counselors, developing an actiotope is met with resistance, and the stability of the actiotope is thereby endangered. Envious peers of a student who is able to expand his or her action repertoire quickly, teachers whose self-confidence is threatened by intelligent pupils, or parents who do not want to contribute their share in enabling the development of an actiotope (e.g., purchase of proper learning material, fees for better schools, transportation to training camps) are all examples of how coadapta-

tions can fail and thereby endanger the stability of an actiotope in a developmental state to the point that further adaptations may no longer be possible.

Conception of Personality

The Actiotope Model of Giftedness differentiates itself from other models of giftedness through its emphasis on actions and its systemic approach. Accordingly, traits are theoretically replaced here by the components of the actiotope and their dynamic interaction. We would like to illustrate this model with two examples.

Traditionally, intelligence has been considered to be a central attribute in the personality profile of a gifted individual (Gagné, 2004; Sternberg, 2003). Typically the quantitative magnitude of this characteristic is determined on the basis of IQ: Persons are considered to be gifted when their IQ surpasses a specific cut-off point. In the Actiotope Model of Giftedness, in contrast, it is the actions an individual can execute that are of prime interest. When a student with a high IQ sits in a mathematics class bored to distraction and begins to daydream, although this student may have attained a high score on an IQ test, in this very situation the student, metaphorically speaking, makes no use of any of his many IQ points. In other words, in this situation he is not engaging in any of the mental actions in the action repertoire, which would be relevant for the improvement of his mathematical abilities. In some ways, this action perspective is related to the differentiation made by Ackerman and Heggestad (1997), who distinguished between intelligence as maximal performance and intelligence as typical performance. The IQ may be a good indicator of the richness and effectiveness of an action repertoire, but is in no way a guarantee that effective actions will be executed. The phenomenon of underachievement teaches us a different lesson. To make full use of the action repertoire, the individual must pursue the appropriate goals, be able to represent appropriate actions in the subjective action space, and be in position to execute these actions in the surrounding environment.

Our second example deals with the theme of perfectionism, a construct that several researchers in the field of giftedness view as a personality trait, and which seems to be more prominent among gifted students than among those with average abilities (Dixon, Lapsley, & Hanchon, 2004; Flett & Hewitt, 2002; Speirs Neumeister, 2004). Usually, perfectionism is defined as a meticulous pursuit to reach excellence, which is often linked to maladaptive consequences (Blatt, 1995; Hewitt & Flett, 1991). From the perspective of the Actiotope Model of Giftedness, perfectionism is once again not considered to be a personal trait, but is rather seen as an aggregation of frequently demonstrated behavioral patterns. In this case, it is clear that the goals a person is pursuing lead to the frequent selection of "perfectionist" actions located in the individual's subjective action space. Because the actiotope at a specific point in time can be seen as the result of an adaptation to a specific environment,

one would obviously want to find out how a preference for such perfectionist actions is generated in the first place. Simply to call an individual a perfectionist does not really help much in understanding such actions and is no more than a reification, that is, treating a common attribute of actions as if it were a real, concrete thing, namely a trait.

Instead of personality, the components of the actiotope move, as a *system*, into the middle point of counseling. In order to fully understand this shift, one must keep in mind that the actiotope is not to be seen as a static entity, but must rather be considered within its dynamic adaptation to a talent domain. The question as to whether there is a distinct personality associated with being gifted does not make much sense from the perspective of the Actiotope Model of Giftedness. A better formulation would be to assert that distinct actiotopes are associated with being gifted: those for which an extreme adaptation to a talent domain is possible and for which a learning path, which leads to excellence, exists.

Model of Counseling

Systemic approaches have proven to be extremely fruitful in the fields of psychological counseling (e.g., Mikesell, Lusterman, & McDaniel, 1995) and coaching (e.g., Kilburg, 2000). One point they have in common is that they consider human behavior to be the result of complex interactions between persons and their environment (Doherty, 2000). Actions cannot be isolated from stabilization and self-reorganization of many components, among them, for example, goals, entities from the environment, and other actors, such as teachers, parents, and peers, who are in turn part of larger systems (e.g. classrooms, families). Similar to Csikszentmihalyi (1998), we commence with the premise that the mind is not the place where genius can be found. The location of genius is not in any particular individual's mind, but in a system where an individual interacts with a cultural domain and with a social field. Counseling does not concern itself with persons, but rather with *systems*, in our case the actiotope of a person. Accordingly, our definition of counseling of the gifted reads as follows: Counseling of gifted individuals refers to a conversation in a supportive atmosphere, the goal of which is to stabilize and/or modify an actiotope, for which a learning path to excellence has been identified, with the objective of establishing more effective actions in a talent domain.

Two points are worthy of emphasis in this definition of counseling gifted individuals. First, it is *not* the gifted person who is the focus of the counseling, but rather, in accord with our system-based approach, the complex system between a person and the environment in which this person functions. Second, the identified learning path, on which this person is already moving or intends to move, builds the framework for the counseling. Counseling gifted individuals is, in this respect, not statically fixed to a single moment in the life of a

Figure 10.1. Model of a counseling situation based on the Actiotope Model of Giftedness
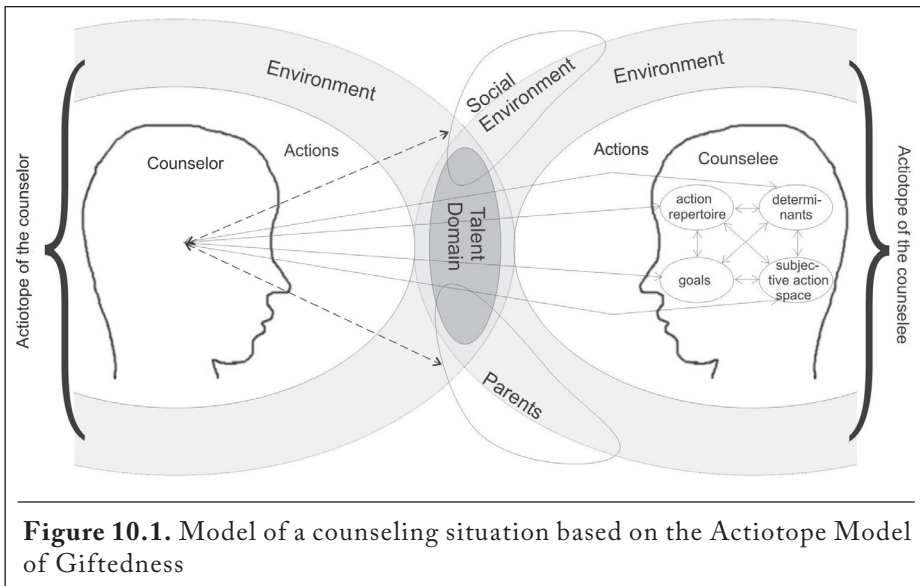
gifted person, but rather corresponds to the dynamic of the development of this person's actiotope in the talent domain.

A counseling session does not have to address only the person whose actiotope is to be further developed to ensure that excellent actions will be enabled. In either private sessions or group sessions, counselors meet with parents, teachers, or trainers who can offer advice or suggestions. These persons are often capable of serving in the role of counselor. The following will, however, be directed at the practice of professional counseling, which is conducted by qualified and trained persons.

The Basic Model of a Counseling Situation

Our basic model of a counseling situation is depicted in Figure 10.1. It illustrates that at least two actiotopes are in interaction with one another, that of the counselor and that of a counselee. The counselee is a person for which a learning path to excellence needs to be identified. The contact point of the two actiotopes is located in the talent domain. Here a connection develops between the competence of the counselor in fostering the evolution of actiotopes toward excellence and the interest the counselee, who wishes to develop his or her actiotope toward excellence, has in counseling. During this developmental process, the counselor pays close attention to all components of the actiotope (i.e., the action repertoire and its determinants, the subjective action space, goals being pursued, and the environment). The ultimate goal of the counseling is the coevolution of these components to a point in the developmental process at which excellent actions can be executed.

The 11-SCC Within ENTER

The quality of a counseling program depends on the quality of the diagnosis to which it is responding. We have elsewhere (Ziegler & Stoeger, 2004a) presented a model for the identification of giftedness. Here we would like to reiterate the characteristics on which this model is based. Our ENTER Model differentiates itself from other identification models in that the intention of the model is not to classify a *person* as being gifted. The aim is much more concerned with locating a *learning path*, which allows the actiotope of this person to evolve to excellence. Counseling gifted clients should be integrated in ENTER.

ENTER is an acronym made up of the first letters of the words Explore, Narrow, Test, Evaluate, and Review, which refer to the five phases of the diagnosis. In the Explore phase, a general inquiry regarding the actiotope of a person is conducted. In the next diagnostic phase, Narrow, the analysis of the actiotope is limited to potential possibilities for development to excellence in concrete talent domains. In the Test phase, attempts are made to specify a learning path (i.e., a concrete plan is drafted with the counselee, and solid behavioral steps are specified).

Should the learning path successfully arise, the next two phases of ENTER serve as quality checks. The aim of Evaluate is to determine whether the learning path proposed had been successfully implemented. Review takes a critical survey of the learning path itself and compares it to possible alternative learning paths. Although a suggested learning path could lead to success (e.g., a talent program could be successfully completed), it is entirely possible that, in hindsight, an alternative promotional measure may have become even more promising (e.g., an alternative talent program that the diagnostician only later became aware of). This final step of ENTER serves primarily to improve the action repertoire of the diagnostician.

We would at this point like to illustrate briefly the five phases of ENTER with a problem that often arises in our counseling center, Landesweite Beratungs und Forschungsstelle an der Universit Ulm (State-wide Center for Counseling Gifted Clients and Research at the University of Ulm). For many parents, the decision as to whether their child should skip a school grade is extremely serious and difficult. In order to be able to answer this question, we first examine the actiotope of the child in the Explore phase, that is, (a) the four components of the actiotope, (b) the aspects of dynamic adaptation, and (c) the related stability and inclination to modification. In the next phase, Narrow, the diagnosis concentrates on the academic area for which counseling regarding skipping a grade has been requested. In particular, we examine various learning paths that might be able to help the pupil to compile a more effective academic action repertoire. Therefore, the investigation seeks to determine not only whether grade skipping would be possible in this case, but also whether skipping this grade would be the most effective and appropriate form of encouragement available. Let us assume the following. In the Test phase, we
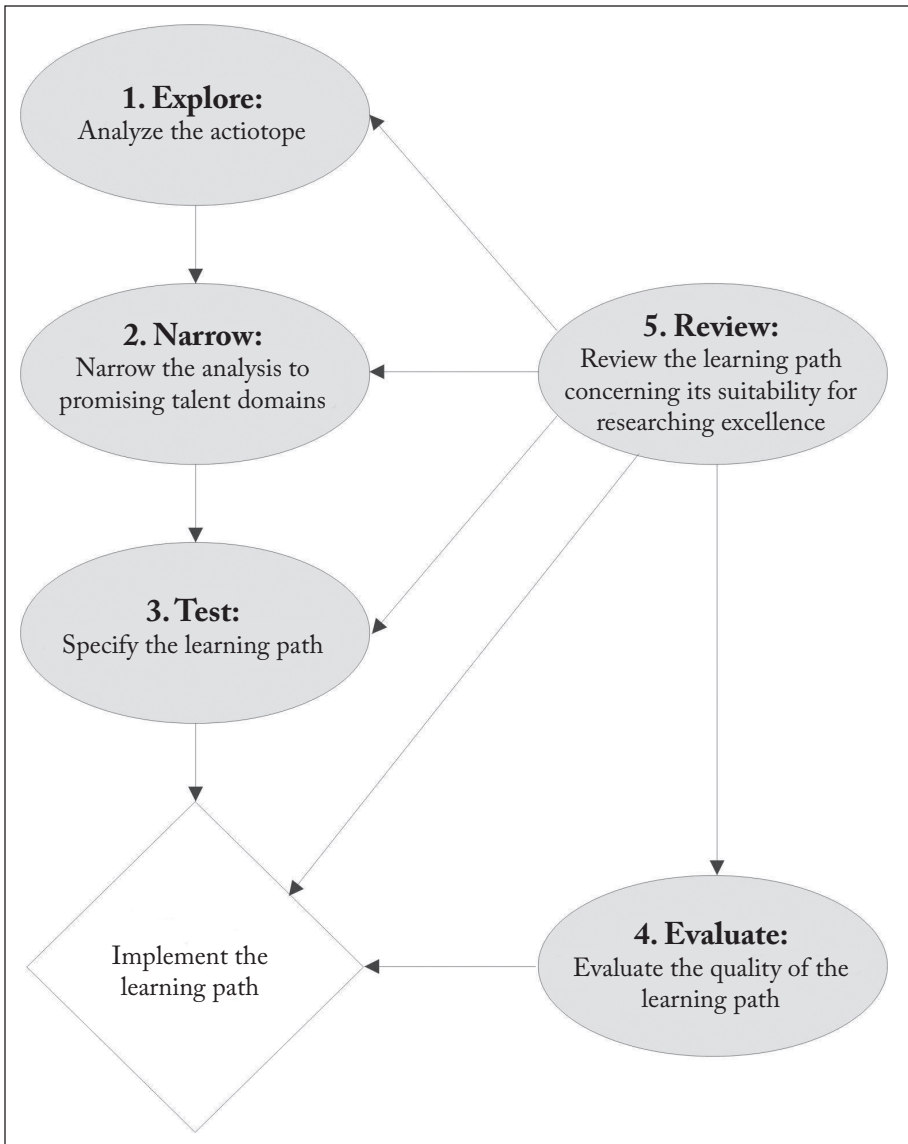
Figure 10.2. The ENTER Model

determine what form this learning path must have and what the chances are for realization. These conclusions are integrated into the counseling, a process that will be described in greater detail below. In the Evaluate phase, a judgment is made as to whether the grade skipping was successful or not. In instances where this is actually the case, in the last diagnostic step, Review, it may be evident that in retrospect a different learning path may have been able to promise even more success. ENTER, therefore, proposes a process in which not only the counselees, but also the counselors, can further develop an actiotope. An overview of this process is depicted in Figure 10.2.

The 11-Step Counseling Cycle (11-SCC)

In ENTER, counseling is conducted during the Test phase, that is, after potential learning paths have been disclosed. Counseling is at the heart of the Test phase. The goal of this phase is characterized by the mutual development of potential implementations of a learning path by the counselor and the counselee. In our counseling center we orient ourselves on a process that consists of 11 steps, which, if need be, can be cyclically repeated. We named this process 11-SCC, which stands for the 11-Step Counseling Cycle. An overview of the 11 steps is depicted in Figure 10.3. In the following descriptions we will always speak of the counselor in the singular and of the counselees in the plural. This can, in practice, be somewhat different, of course: There may be several counselors and/or only one counselee participating in counseling.

Step 1: Mediation of the Potential Learning Path

The first step is the presentation of the results of the diagnosis. It is important to stay in touch with the original intentions of the counselees. The counselor must always consider the significance of the original counseling goals for all concerned, what the original expectations were, what problems had already been defined, and above all, what differences in opinion came to light.

In the first step of the counseling cycle, as for all of the following steps, as well, the principles of systemic counseling are to be observed, such as establishing a cooperative climate. Because we presume that these principles are known by our readers, we will not address them in the following.

Step 2: Assessment of the Learning Paths by the Counselees

In the second step, the assessments made of the counselees' learning paths must be put into question. The suggested learning path demands their full cooperation, and potential reservations must therefore be made clear. At this point, counselors often find themselves tempted to minimize or even refute differences in opinion. This is, however, counterproductive. Differences in opinion should certainly be addressed and resolved. Furthermore, it is important to ask the counselees to assess the consequences they could personally experience should the learning path be pursued.

Step 3: Importance of Alternative Goals

Even when a consensus can be reached in Step 2, one should inquire as to whether alternative goals exist, because the existence of such goals could represent an ongoing enticement to abandon the learning path or to pursue it with dampened enthusiasm. Also important here is paying attention to points of both agreement and disagreement. If an alternative goal is identified, and the counselor has reason not to support it, she now has the opportunity to present her arguments. If a consensus still cannot be reached, one is to proceed to Step 11 of the counseling cycle.
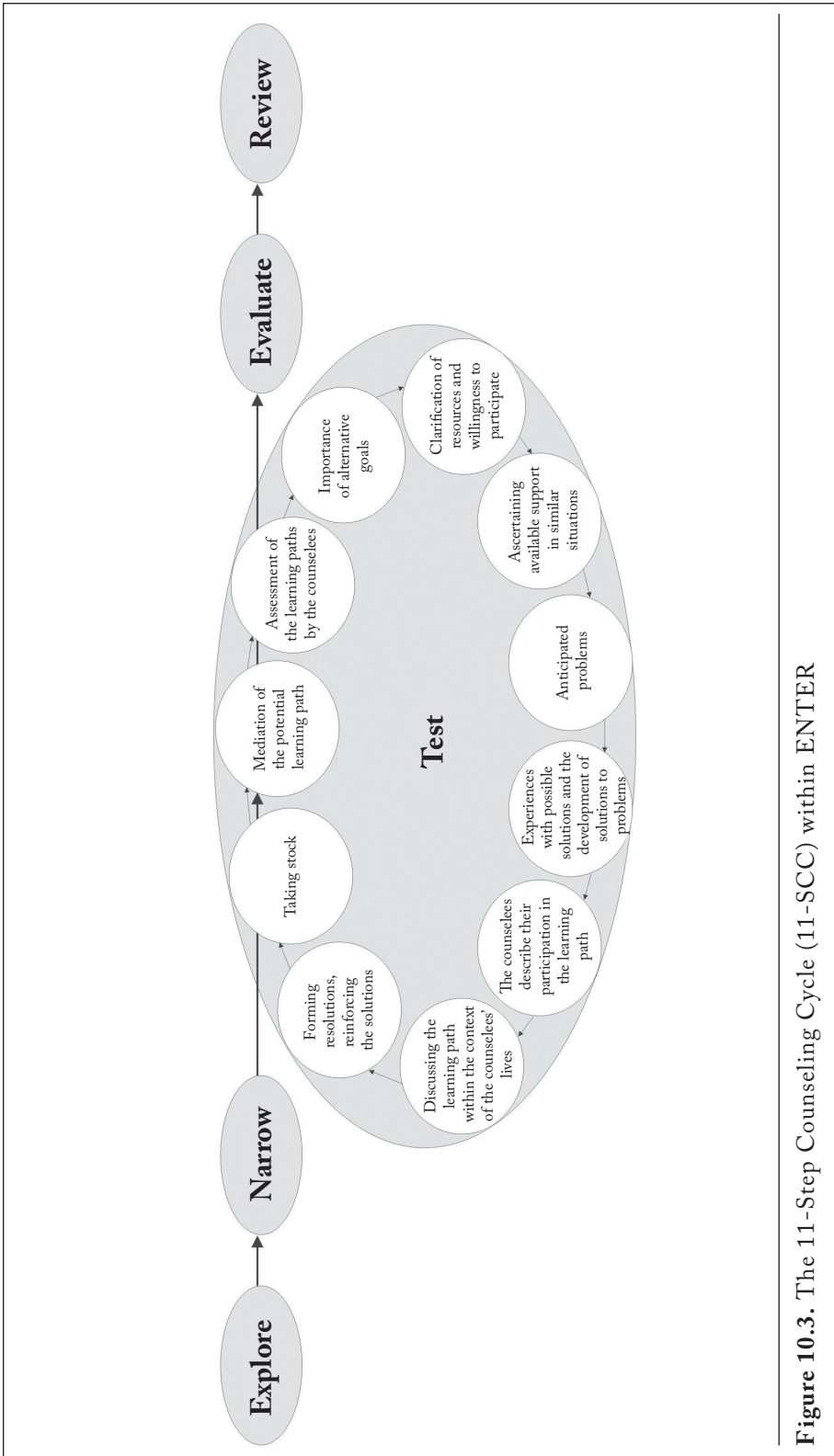
Figure 10.3. The 11-Step Counseling Cycle (11-SCC) within ENTER

The diagram shows a horizontal sequence of stages: **Explore** → **Narrow** → **Evaluate** → **Review**. Within the cycle (labeled **Test**), the following steps are shown:

- Forming resolutions, reinforcing the solutions
- Taking stock
- Mediation of the potential learning path
- Assessment of the learning paths by the counselees
- Importance of alternative goals
- Clarification of resources and willingness to participate
- Ascertaining available support in similar situations
- Anticipated problems
- Experiences with possible solutions and the development of solutions to problems
- The counselees describe their participation in the learning path
- Discussing the learning path within the context of the counselees' lives

Step 4: Clarification of Resources and Willingness to Participate

When the counselor and counselees agree on the merit of the learning path, a detailed survey of the resources available to the counselees, as well as their willingness to participate, must be made. Furthermore, it is absolutely necessary to ask the counselees to identify other people's expectations of them and the significance they ascribe to these expectations.

It is also helpful to find out which steps they are planning to take. It is not uncommon to observe counselees acting unilaterally, whereby they undertake steps that are less than functional. For example, counselees often set extra goals for themselves that are extremely high and next to impossible to attain, which in turn can only lead to disappointments. Finding out their plans can help prevent inappropriate or counterproductive behaviors.

Step 5: Ascertaining Available Support in Similar Situations

Usually, the counselor takes pains to develop learning paths that can best be integrated into the actiotopes of the counselees. Typically, counselors have already had experiences with similar actions. Being aware of such actions can help the counselor to have insight about the chances for success of this learning path. When, for example, parents in similar situations have demonstrated little or no support for their child, or were not able to come to terms with similar situations involving their child in the past, it is important to determine whether solutions for these problems were sought and to find out why they did not work.

Step 6: Anticipated Problems

A new learning path almost always calls for significant adjustments in the actiotope. For this reason, counselees are asked to anticipate what types of problems they might face on the intended learning path. It is also important to know who might become involved, should the problem actually arise; how the involved persons might react; and what types of effects the problem might have on those involved and others.

Step 7: Experiences With Possible Solutions
and the Development of Solutions to Problems

It may well be that the counselees already have encountered problems similar to the anticipated problems and have already generated plausible solutions. Discussing these topics is often a useful starting point for developing a repertoire of suitable reactions, which itself is the aim of this step.

Step 8: The Counselees Describe Their Participation
in the Learning Path

It is vital that the participants formulate a concrete description of their participation in the learning path. Here the counselor must ensure that this description includes concrete action: who does what, where, when, and how

models of counseling gifted children, adolescents, and young adults

needs to be specified. This step serves to help the counselees recognize unrealistic plans and to remove any possibility of internalizing them into the actiotope. If this process is not successful, one must return to Step 4. When repeated attempts to work through Steps 4–8 are not able to produce a promising solution, one must move on to Step 11.

Step 9: Discussing the Learning Path
Within the Context of the Counselees´ Lives

The counselor must be completely sure that he is merely presenting a potential learning path: Counselees must decide to pursue this path themselves, based on information gathered and processed during sessions without being influenced by others, including the counselor. Yet, consideration must be given to the effects generated by the decision to follow this learning path on all those involved. For example, if changing schools is appropriate, old friendships may no longer be maintained. Are the counselees willing to pay this price? What could help them manage this transition? It is extremely important, in the interest of serious counseling, that the counselor exert no pressure on the counselees at this point.

Step 10: Forming Resolutions, Reinforcing the Solutions

If a decision is made in favor of the learning path, the counselor should then require the counselees to formulate resolutions (Gollwitzer, 1999). The counselor reinforces these resolutions, and in some cases she may need to insist that the counselees further develop their resolutions if she finds them to be flawed. In certain circumstances, a return to Step 9 may be warranted.

Step 11: Taking Stock

To conclude, the counselor takes stock of the counseling sessions as a whole. Specifically, she reiterates all parties' intentions or explains why a consensus regarding a learning path could not be reached. All who are involved agree as to how the process will proceed. Steps 1–10 of the counseling cycle may have to be repeated—and in extreme cases, a return to the Explore or Narrow phases of ENTER is needed.

The 11-SCC must be completed in full at least once before a learning path can be entered. Counseling, however, should be a continuing process in which an individual receives help and support in either stabilizing his or her actiotope or, in the case of attaining excellence, altering it. After the learning path has been implemented, there is no reason that the counseling cycle cannot be reaccessed if needed. Counseling should come to an end only when the counselor determines that he or she is not able to contribute further or that the counselor's capacity role can be delegated.

Application

With a case that surfaced in our counseling center, we demonstrate the application of the 11-SCC in the framework of ENTER. Clients contact our counseling center either by telephone or electronically by e-mail, upon which we return the call. The first encounters are fairly standard. In addition to personal data, we make an initial appraisal to see whether the case is appropriate for the services our counseling center provides. Furthermore, we set a preliminary goal (Ziegler & Stoeger, 2004a). A case to be undertaken by our center must fulfill two requirements, which we address as counselee criterion and issue criterion.

- *Counselee criterion.* Indicators of giftedness must be present, or, in the framework of our approach, there must be indications that excellent performance in an area is possible.
- *Issue criterion.* The situation that precipitated counseling and the ultimate counseling goal must have either the stability or the modification of the actiotope (or both) in the talent domain as its objective.

The second criterion is rather broad, because in a systemic understanding of an individual, all psychic dynamics bordering on the talent domain will be affected. Many occasions for counseling, such as problems with siblings, peers, or teachers, although they do not appear to be directly linked to the talent domain, can, however, exercise an influence on the stability of or the ability to modify the actiotope in the talent domain. However, for a case to be accepted by our counseling center, it is crucial that the client does not see the solution to such problems as an end in itself, but rather in terms of a development within a talent domain. If this is not the case, then the case is transferred to a counseling center specializing in child or juvenile issues.

In the case we selected to discuss here, the mother contacted our counseling center by telephone. She related that she was a member of a support group for parents of gifted children. Her son was 16 years old and had already been tested for ability at a counseling center for gifted children at the age of 11. The results had been positive enough that he was advised to skip a grade. Later, he skipped a second grade and was attending the 12th grade of a German public college-preparatory high school (Gymnasium). He was scheduled to take his college-entry examinations in 17 months. As a general counseling goal, the mother expressed a desire to receive general information about how to best support and develop her son's talents.

The information supplied by the mother met the two criteria of our counseling center for accepting a case: (1) In light of the prior testing results and exceptional academic performance, we thought it feasible to find a learning path for the son that would lead to excellence in a talent domain; and (2) The mother's expressed intention was a modification of her son's actiotope with respect to excellence.

Because our counseling cycle is tightly integrated within the ENTER Model, we will first summarize the most important results of the Explore and Narrow phases of the diagnosis. Diagnostic sources were as follows:

- Two 16-page standardized questionnaires, which contained both multiple-choice questions and open-ended questions and an initial screening. The questionnaires were mailed to the parents and to one of the son's teachers (identified by the parents). The parents filled out their questionnaire together. Addressed in the questionnaires were state of health, general development, achievement development and current state of performance, indicators of giftedness, learning behavior, learning environment both at home and at school, indicators of instability in the actiotope, interests, social relationships (family, peers, school), and extracurricular activities. In addition, we asked the parents and their son to detail the course of a typical week both when school was in session and during school holidays in one-hour units, on prepared forms.
- Two cognitive-ability tests: Cognitive Abilities Test 4-13, (CAT 4-13; Kognitiver Fähigkeitstest 4-13, German adapted version by Heller & Perleth, 2000); and Standard Progressive Matrices (SPM; German adapted version by Heller, Kratzmeier, & Lengfelder, 1998).
- Ulmer Motivation Test Battery
- Ulmer Learning Style and Learning Strategy Test
- School records (e.g., scholastic)
- Interview with the son
- Interview with the mother
- Telephone interview with the math teacher
- Telephone interview with the expert adviser to the selection committee for the team representing Germany in the Mathematics Olympics

The results of the ability testing, performed at age 11, were unfortunately no longer available.

The results of the first two phases of ENTER, Explore and Narrow, which cannot be related here in detail, led to the conclusion that a learning path to excellence in the domain of mathematics existed. The most important grounds for this conclusion were as follows:

- The son's action repertoire contained a broad base of effective actions in the academic area. His scholastic achievements were exceptional and, despite having skipped two grades, well above his classmates. Further indicators of an effective action repertoire in the academic area were his performances on the SPM and the CAT 4-13, where he scored far above the above-average ranges in both cases. On the SPM he correctly solved all tasks, and on the CAT 4-13 he scored more than three standard deviations above the class means.
- The action repertoire in the area of mathematics was exceptional. The scholastic demands in his mathematics courses were child's play for him; he was able to solve all of the tasks on the quantitative subscales of the

CAT 4-13. The mathematics advisor to the selection committee for the German Mathematics Olympics Team confirmed that the mathematical abilities demonstrated by the son were extraordinary. He demonstrated, both during interviews and on questionnaires to assess learning strategies, that he was in command of several very effective learning strategies and that he set appropriate learning goals when studying mathematics.

- The results of the Motivation Test Battery confirmed that the son was highly motivated and pursued ambitious academic goals. The interviews also confirmed that this was particularly true in mathematics. Concurrent goals existed primarily in the area of music. He played the cello and the piano, sang in a choir, and was involved with the school orchestra. Social goals were less prominent; he was less interested in socializing with friends.
- The action repertoire was well represented in the subjective action space (e.g., with respect to how goal oriented the actions were). The regulatory skills (e.g., affect regulation, action regulation) were well cultivated, especially with respect to learning in the area of mathematics. The attributional style was functional.
- The social environment had a positive influence on learning. The son had access to a wide range of learning opportunities. His parents were in a position to supply motivational, attentional, and material resources necessary to support his learning.
- The actiotope was characterized by ample stability, and all components of the actiotope appeared to be well coadapted. We could not detect problems or conflict fields, which may have posed a threat to the stability of the actiotope.
- Various factors indicated favorable conditions for modifying the actiotope with respect to excellence in mathematics: the good coadaptive qualities among the components of the actiotope, the motivation demonstrated by the son for mathematics, the engagement of the parents, and the access to existing resources.
- The five adaptive functions needed to successfully realize a learning path, however, were not guaranteed. Although several beneficial skills had been developed (e.g., good computer programming skills, indispensable in anticipating an actiotope for a career in mathematics), they were not sufficient for the extended processes that were imminent. We made a decision to work together with the parents to determine how the five adaptive functions could be best installed.

The promotional goals we suggested were brought up over the course of the 11-SCC. However, because the entire five-session counseling process lasted almost 22 hours, we will offer only a summary here. Participants were the son, the mother, the father, and, at various points, the authors. These sessions were conducted in part as group sessions and in part as individual sessions.

Furthermore, we made telephone contact with a professor in mathematics who had previously demonstrated interest in mentoring. He was also given access to the results of the earlier diagnosis and a description of the learning path. In response, he reiterated his interest in acting as a mentor.

Step 1: Mediation of the Potential Learning Path

First, we revealed the results of the diagnosis and discussed them in detail. During sessions and discussions with the counselees, we avoided technical terminology as much as possible, except when it became absolutely necessary to use it (e.g., when reviewing the results of the IQ tests). In particular, we completely avoided completely unfamiliar terms from the Actiotope Model of Giftedness. When these terms are mentioned in the following summary, it is only to justify suggestions that we made to the counselees. In fact, in discussions with the parents, these terms were paraphrased with language understandable to counselees.

The counselees had several questions that were clarified at this time. For example, they were not sure what attributions were and what types of attributions were functional. In conclusion, we indicated to the parents that we believed it plausible that their son could attain excellence in the field of mathematics. We outlined a potential learning path. The main elements of this path were the following:

1. striving toward a career in the field of mathematics;
2. developing a learning plan for mathematics that included, among other things, reducing the engagement associated with preparations for the Mathematics Olympic Team;
3. increasing the amount of time spent with mathematics;
4. attending university courses before finishing high school;
5. constructing a social network in the domain of mathematics;
6. improving the abilities associated with self-regulated learning; and
7. flanking these measures.

All measures were presented in tandem, with detailed explanations, which will be sketched out below, along with other background information.

1. Because excellence in mathematics appears to be an attainable goal for the son, it made sense for him to choose a career in this domain. Learning could be framed as preparation for this occupation. Our counseling center would assist in planning the learning path and support the candidate until doctoral studies, which would begin in 5.5 years. The learning path would be devised so that excellence should have been attained by that time. Afterward, the doctoral advisor would assume further support, or the son himself will be in a position to further develop his actiotope.

2. It has been pointed out that developing achievement excellence requires goal-oriented, well-planned, systematic learning. In this case, the parents benefited from an illustrated explanation of the concept of deliberate practice

(Ericsson, 2003) and were made aware that deliberate practice does not refer to the time spent dealing with the domain of mathematics, but rather simply to systematically expand one's own boundaries. In these explanations, we emphasized that the daily amount of deliberate practice a person is capable of executing is limited to a few hours. In this regard, it is important that when planning daily learning activities, one must not only choose the best possible learning methods, but also the subject matter with the most potential to ensure optimal movement toward excellence in the area of mathematics.

We related the outcomes of the two telephone calls with the expert advisor to the selection committee of the Mathematics Olympics and the mathematics professor, who both verified that solving mathematic problems for the Olympics Team involves a special type of expertise. However, this expertise is only slightly similar to what a mathematician who has attained a state of excellence has. For example, the mathematical content of the Olympics tasks are not representative of the types of problems a mathematician must grapple with, because one prerequisite for the problems used in the Olympics is that they be grounded in the curriculum being covered in corresponding mathematics courses at school. In addition, the approaches used to solve these problems, for each of which a solution can always be generated, are little like the usual day-to-day work of mathematicians. The recommendation here was, therefore, to reduce the focus on participation in the Mathematics Olympics and to direct it instead toward systematically developing competencies associated with the tasks of a mathematician.

3. We presented a brief overview of research regarding the amount of practice individuals need to be able to execute excellent actions. (According to Simonton [2003] approximately 10 years, that is, about 10,000 hours of deliberate practice is needed.) According to our estimations, in addition to the amount of the son's prior deliberate practice in mathematics, at least 7,000 hours were necessary to be able to generate excellent achievements on an international level. These hours could be accrued before beginning doctoral studies in approximately 5.5 years (assuming an average of approximately 3.5 hours of deliberate practice daily during the next 1.5 years at school and 4 years of undergraduate studies).

4. As a measure that could be implemented immediately, we suggested that he begin attending university courses before finishing high school. These courses did not need to be mathematics courses and could include courses mediating secondary competencies in line with an anticipative actiotope, such as in computer science or English-language courses, because mathematics is an international science with English as the common means of communication.

5. We suggested forming a social network in the field of mathematics. It seemed particularly important to us that a mentor be made available. This mentor could help to plan learning steps with appropriate subject matter and to integrate the counselee into the scientific community surrounding mathematics (e.g., by pointing out potentially interesting lectures and introducing the student to the culture of journal publication). Above all, he would benefit from the feedback loop pertaining to individual learning growth. The counselees were informed that a mathematics professor had showed interest in becoming a mentor in this case.

Furthermore, we suggested that a network be formed with age peers who also had the goal of improving their competencies in mathematics. Potential members could be identified from preparation courses for the Mathematics Olympics, but could also include other university students with whom both learning and social circles could be established.

6. We offered to have the coworkers of the counseling center assist the son in improving his self-regulated learning skills so that the son would be able to control many of the learning processes in mathematics for himself in the future. In order to be able to do this, he would need to have competencies such as self-evaluation of strengths and weaknesses, goal-setting, self-monitoring, and goal-oriented selection of learning strategies, for example (see Stoeger & Ziegler, 2005). We offered to accompany the son during the first 8 weeks of the new learning path and to conduct regular counseling sessions following this period.

7. In conclusion, we pointed out that the measures undertaken could be effectively supported by a series of additional measures (e.g., optimal nutritional intake and sleep patterns). Steps 4–9 of the 11-SCC explain what could be efficiently integrated into the daily routine.

Step 2: Assessment of the Learning Paths by the Counselees

The counselees were able to follow the report of the diagnostic assessment and expressed that it was in alignment with the expectations they had had. We had become aware, in the diagnostic discussions, that a career in the field of mathematics was a goal of both son and parents. They basically assented to the learning path without hesitation (see Steps 3 and 6 for caveats).

The parents expressed reservations only in connection with the mentor and how cooperative he might be. We asked them to put this question aside, as this point would be concretely addressed after reaching consensus regarding the goals of the learning path and the most important measures to be used in attaining these goals. The parents declared that a basic consensus had been reached.

Step 3: Importance of Alternative Goals

In response to the question of alternative goals, the father asked if it was completely necessary for his son to renounce his goal of participating in the Mathematics Olympics. After the counselor asked for his opinion, the son answered that he thought it would be "a great thing" to be able to qualify and participate. However, it was more important to him, in the long run, to be able to reach the highest level of competence. The mother also said that her top priority was to ensure the best support possible for him. For her, the significance of short-term goals was not as high as a potentially long-term and lasting promotion. The counselor repeated that time-consuming efforts to qualify for the Mathematics Olympics would contribute little to the goal of attaining excel-

lence. In addition, he indicated that this activity could also cause time conflicts with university class schedules. He did, however, offer to discuss the matter with the mathematics professor to see whether a solution could be found. In response to these explanations, however, all counselees expressed their preference to stick to the original learning path.

Step 4: Clarification of Resources and Willingness to Participate

We clarified resources and ascertained the willingness of each counselee to participate in individual sessions. We prefer to conduct individual sessions in our counseling center when a consensus appears to be tenuous or when extensive changes in the actiotope need to be made. The latter was likely to occur in this case. Because the father had also indicated brief support for an alternative goal, individual sessions appeared to be appropriate. Steps 4–8 were conducted at first with each of the counselees in individual sessions and later in a group session. In the group session, the counselor reiterated conclusions from each of the three individual sessions and discussed them with the group.

The counselees all demonstrated high levels of willingness to participate and, in response to concrete inquiries, stated that they had ample resources available to them (in particular, time). Using the weekly time planners filled out by the parents, we held individual discussions as to what types of changes would need to take place in daily activities when additional learning time needed to be integrated into these plans. Weekends and holidays received intense focus here.

Of a number of topics addressed, two have been selected to illustrate the detail that was given to planning at this point. We asked all three counselees how the nutritional and sleeping behaviors of the son could be improved, and who would undertake that responsibility for these elements. It was extremely fortunate that not only with respect to these two examples, but also in general, the contributions offered individually and the expectations voiced by the others with respect to these points were in harmony.

Step 5: Ascertaining Available Support in Similar Situations

Earlier explanations here have already made clear that the choice to pursue a particular learning path is related to changes in the actiotopes of the counselees. It is therefore of the utmost importance that none of the modifications will endanger the stability of the actiotopes. For example, we asked the son if he had already had experiences working intensively over a long period of time toward a learning goal, which indeed had been the case for each of the grades he had skipped. The parents were asked to describe how they had supported him during these phases

and what the consequences had been for them. These effects were also discussed, when pertinent, with regard to other types of support. Here the points established in the first two phases of ENTER could be observed again, namely (a) that the parents demonstrated a large amount of support and (b) that the son was extremely motivated regarding pursuing learning goals, even when goals called for significant modifications of his actiotope.

How failures had been dealt with during the learning process and how the parents had reacted in such situations were given considerable attention. Although these areas had already been addressed briefly in the first two phases of ENTER, here the topic was covered in greater detail. Here again, as we focused on concrete situations, the parents' high degree of support was clearly evident. Fortunately, in response to failures related to the learning process, the son typically responded with increased effort.

Step 6: Anticipated Problems

The modifications needed in the learning path could pose a threat not only to the individual actiotopes of the counselees but also to the family system. Although both the father and the son were optimistic that no major problems would arise, the mother reported having reservations. Particularly important to her was to discuss what effect the learning path would have on family life: Would the son still have adequate free time and would he be motivated to spend enough free time with his family? Because the entire family was affected by this problem, during her individual session we asked the mother what her intentions were and which specific problems were causing her concern. We agreed to bring up this point again later in the group meeting and to clarify it at that time (see Step 7 of the 11-SCC below).

The counselor himself brought up some potential problems. Because the father had previously voiced concern as to whether they would be able to find a suitable mentor, but did not actively address this topic in Step 6, he was asked what he expected of a mentor. Because the mathematics professor, in the opinion of the counselor who knew the professor personally, was likely to fulfill these expectations, all agreed to discuss this topic once again in the group meeting. In case further reservations were then raised, the discussion would be postponed to a time when all parties, including the mathematics professor, could meet and clarify details.

Another problem the counselor addressed was a possible move away from the family for university studies, a phenomenon that is not at all uncommon in Germany. Because the son would be only 22 years old when the learning path being implemented would end, and the university was in the same city as the family home, all counselees assumed in their individual sessions that the son would not move out.

Step 7: Experiences With Possible Solutions and the Development of Solutions to Problems

The most important topic of Step 7 was the fears raised by the mother that the learning path could have a negative effect on the family in general. Both of the weekly time plans constructed by the parents were discussed together in session and altered according to the learning path suggested by the counselor. The father and son both saw the potential for detrimental effects on the family life, but declared that they would be willing to take this risk. The counselor noted, however, that the concerns expressed by the mother were justified, because all involved parties agreed that a "risk" potentially existed. If a solution for this potential problem were possible, it should be sought out together before the fact. Because a repetition of the approximately 90-minute clarification of this point is not advisable here, we will limit ourselves to a reiteration of the seven-step solution co-constructed by the family and the counselor:

- The learning path should be implemented as planned.
- During the first 8 weeks of the learning path, the son would receive support from the counseling center to develop self-regulated learning skills, among which are time-management skills, so that the son would also learn how to protect enough free time to maintain family life as it was.
- After 8 weeks (i.e., after the son had improved self-regulating activities through interactions at the counseling center), each member of the family would compile lists of personally negative and positive effects of the learning path. In addition, they would to determine whether, in their opinion, the learning path generated for an improvement, deterioration, or no change in the quality of their family life.
- After the 8-week period had been completed, all family members would hold individual discussions with an associate of the counseling center, as well as a group meeting, to discuss the lists and to make a final assessment.
- For the group meeting, insofar as this was related to individual counseling issues, the counselor would bring in the mentor.
- If a solution could not be established for a specific problem, the learning path would be altered, if needed.
- The family would conduct discussions on a regular basis, or in response to problems that arose, and, if necessary, a member of the counseling team or the mentor would be called on to participate.

Step 8: The Counselees Describe Their Participation in the Learning Path

The counselees were then asked to describe how they were to participate in the learning path. As previously mentioned, Steps 4–8 of the 11-SCC were first covered in individual sessions, with individual participation roles almost

fully clarified. The seven main points of the learning path were discussed concretely with each of the counselees (i.e., what each was to do where, when, and how). The degrees of specificity and accuracy built into the time schedules were very high for the first few weeks, so that all parties could draw a clear picture of exactly what kinds of changes were expected.

In the group sessions, all aspects that were anticipated to have consequences for the other counselees were discussed. Each counselee was requested to repeat the resolutions he or she had made and to give the other two family members the opportunity to articulate their reactions to these points.

Step 9: Discussing the Learning Path Within the Context of the Counselees´ Lives

In Step 9, the counselor emphasized the effects the learning path would potentially have on each of the participants. Afterward he pointed out that a learning path to excellence was *one* possible option for support. Alternatives were certainly possible, and it was up to the counselees to make the final decision for the suggested learning path to excellence. At this point, counselees almost always inquire as to what alternatives may be open to them, although if they do not, the counselor explicitly points out alternative goals. In this case, a wide range of possibilities existed, for example, a different university major (concrete references were made here to music, as the son had demonstrated a high degree of interest in this direction) or a later entry onto the learning path. At the same time, the counselor made clear that the duty of our counseling center was to supply gifted individuals with competent assistance for developing their gifts to a state of excellence on a learning path. The counselees, after being informed of all aspects of the learning path, which they had forged together, did decide to begin this developmental process.

After the counselor had named the alternative of a university major in music, the mother related that she could also imagine her son pursuing such a path. Although the father rejected this immediately, the son confessed to his mother that he would be open to considering such a move. At this point, the counselor suggested postponing the remainder of the session, recommending that the three counselees give thought to whether they wanted to commit themselves to the proposed learning path. At the same time, they were advised to initiate contact with other counseling centers or with the school guidance counselor. Should they resolve to go ahead with the learning path, they could make an appointment with the counseling center. After only 4 days, the son called the counseling center and stated that the family had decided to work with the learning path. The mother then arranged for a session in which the son, mother, father, and counselor again took part.

Step 10: Forming Resolutions, Reinforcing the Solutions

The counselor requested that each member reveal why he or she had decided in favor of the learning path and repeat their individual goals. The other counselees were asked to express their opinions as to whether these goals were sufficient. Because this was the case, the process moved on to Step 11.

Step 11: Taking Stock

The counselor then summarized all resolutions. The next steps were agreed upon, which, among others, included making an appointment to meet the mentor. It was agreed that the counselor should first meet with the mentor and jointly plan out the learning steps to be taken over the next 2 months. Furthermore, they were to gather information pertaining to suitable university courses.

The counselees stated that they were willing to make immediate contact with the son's scholastic counselor. The aim here was to make an appointment to meet with school officials (those the counselor considered to be appropriate) and both discuss the results of the counseling and determine how they could enable the son to combine continued regular school attendance with university courses. After it was clarified what information was to be supplied to the school officials, the parents were requested to relate the results of this meeting to the counselor as quickly as possible. The counselor agreed to contact the parents immediately following his meeting with the mentor, inform them about what had been accomplished, and plan further steps jointly.

Finally, the evaluation points (i.e., the fourth diagnostic phase of ENTER), were drawn up. These included the meeting after 2 months (already agreed to), at which an analysis would be made as to whether the family life of the counselees was being negatively influenced and if the measures undertaken by the counseling center to improve self-regulated learning had been effective. Further benchmarks of the evaluation were current scholastic records and a good start in university studies, the latter to be determined following the first eight classes. In addition, the family was assured that the counseling center would establish regular contact (approximately every 2 months) with the mentor, in order to alter the learning path if necessary. If alterations had the potential to affect the family, they would be contacted immediately for permission.

Conclusion

The authors invite the readers to compare the first three steps of ENTER and the 11-SCC contained in the text outlined here with the selection and promotion of talented athletes. The idea that a child at age 8, determined to be

a gifted soccer player, and offered a 2-hour counseling session, even with the best soccer trainer in the world, would then go on to attain athletic excellence without having experienced further supportive measures, appears to be absurd. However, this is unfortunately exactly what is common practice in counseling centers that advise the academically talented. For young soccer talents, close attention is paid to proper nourishment, regular rest and breaks, adequate sleep, exceptional training facilities, the best trainers, opportunities to play on the best teams, and continuing support over a period of years. In contrast, most counseling centers are content to supply inquirers with only a brief (in most cases only 1 or 2 hours) explanation of possible general interactions. Excellence can hardly be attained when a complete learning path is not carefully planned, down to the minutest of details, and closely monitored.

In the case presented here, the fears expressed by the parents that the learning path would have detrimental effects on family life proved to be unfounded. After a period of 11 months, no signs of this had surfaced. Evaluations indicated that the chosen learning path appeared to be successful. Collaboration with the mentor went extremely well.

However, despite all the planning and investment, learning paths do not offer a guarantee of attaining excellence. Some counselees will grasp opportunities because they fit with one of their life goals, not because the learning path can lead to excellence.

We sincerely hope that the case study depicted here is also a good illustration of Csikszentmihalyi's (1998) idea, which we referred to earlier, that the mind is not the place where genius and creativity can be found. The location of genius is not in any particular individual's mind, but in a system. Counseling of the gifted is thereby a process, the center of which is not a single characteristic of a person. The ultimate aim of counseling the gifted is the development of an actiotope to the point at which a person is in the position to execute excellent actions in a talent domain.

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