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# Chair of Business Education

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Department of Law, Management & Economics

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“Sovereignty” – an anchor in the wavy  
discourse on competences?

Paper presented at

EARLI 13<sup>th</sup> Biennial Conference on

“Fostering Communities of Learners”

University of Amsterdam

Amsterdam, the Netherlands

August 25 – 29, 2009

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## Abstract

At present we meet with abundant publications dealing with concepts, models and instruments for the measurement of competences in a wide variety of areas of application. Nevertheless, many details as well as important basics in competence analysis are not yet clear enough. E.g. it is a basic but still open question whether competences should be conceptualized as continuously developing or as developing stage by stage. Nor do we have any approximatively precise idea how the many different *cognitive* attributes (abilities, skills) involved in competence concepts interact with each other and, more so, with *non-cognitive* attributes.

By following a proposition of Fritz Oser in this paper a new notion in this field, i.e. "sovereignty", is analyzed. Main questions to be studied are (1) the scientific meaning of this notion referring to its colloquial sense, (2) its status within the paradigm of methodological individualism and, therein, within a structure-genetic approach sensu Piaget, (3) its placement within a developmental stage model of competence and (4) how to get empirical information on "sovereignty" by measurement.

To illustrate the theoretical gains using the notion "sovereignty" a preliminary developmental stage model of teacher competence is outlined. It turns out that "sovereignty" could be of some use in identifying developmental phases of teacher competence and, possibly, in diagnosing developmental deficits, as well. But the problem of how elements of competence interact remains still unresolved.

## “Sovereignty” – an anchor in the wavy discourse on competences?

### Introduction: Competences and the idea of “sovereignty”

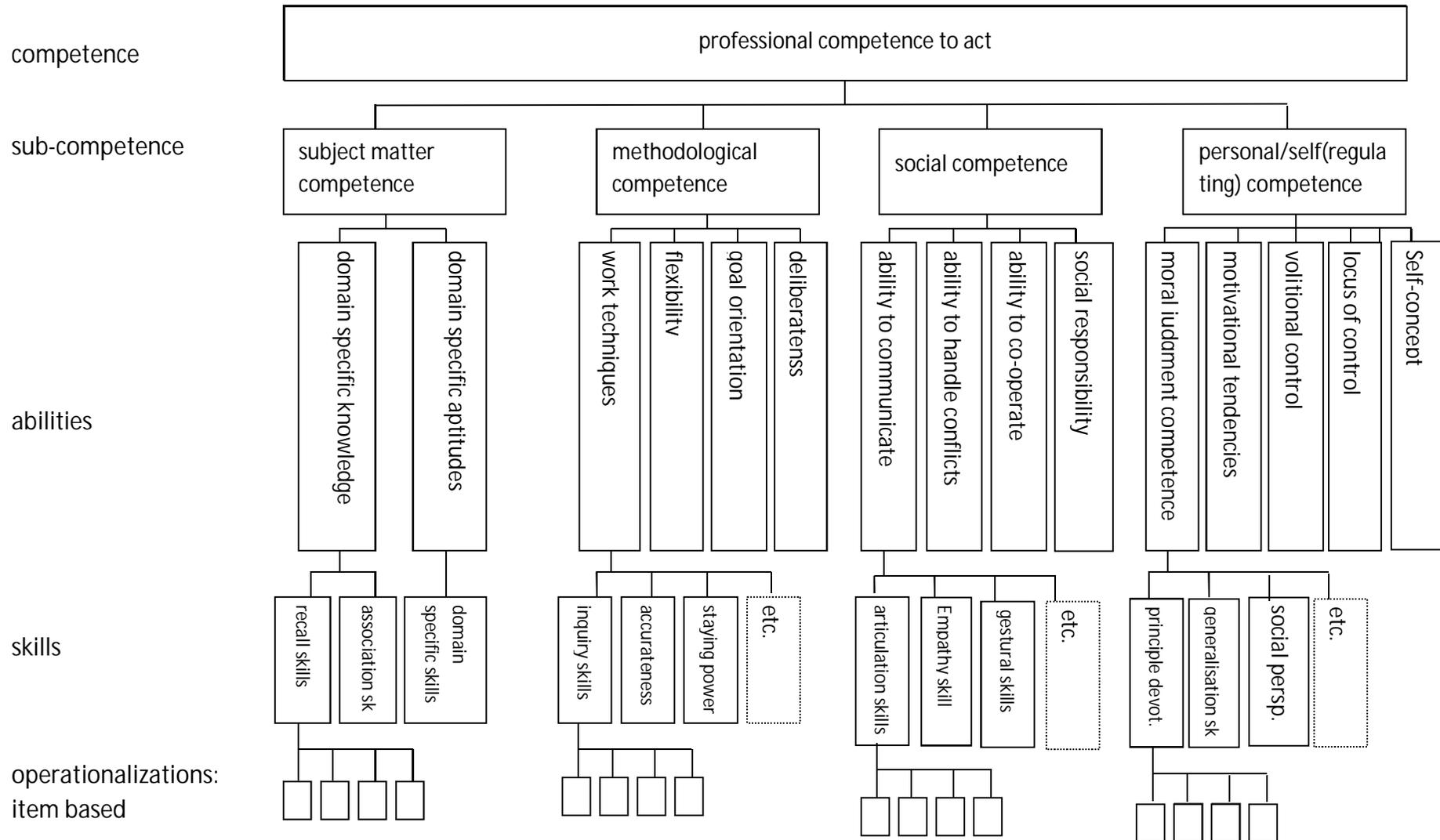
Since some twenty years we observe an impressive progress in theorising, modelling and even measuring competences. Roughly spoken, competences are conceived as latent dispositions of human beings (cf. e.g. Weinert 2001) enabling them to act successfully on special tasks (e.g. reading or math competence) or to perform in special areas under special conditions (e.g. problem solving or moral judgment competence). Generally, we decompose competences into sub-competences and, again, these sub-competences into single abilities and skills which – via interaction – allow for mastering special types of situations to a lower or higher degree (e.g. teaching competence).

Up to now there is still no consensus which abilities, skills and – in the case of complex demands – sub-competences constitute certain competences. Rather, pretty often we meet with verbalizations which do not differentiate between “competences” and “abilities” at all (KMK 2004). At least in the German speaking literature the notions “ability” and “skill” as well as the former rampant but now nearly lost notion “key qualification” seem to disappear more and more and to be substituted by the notion “competence” (often in abundant combinations with labels for special fields of application, like “counselling competence”, “communication competence”, “democracy competence”, “negotiating competence” and even “dressing competence” or “flirting competence”).<sup>1</sup> On the other hand looking at the so-called “professional competence to act”, a growing convergence is to be observed in modelling this construct hierarchically top-down by inclusion of sub-competences and abilities plus skills. But, the lower one climbs from the top level down the more incompatible, fuzzy or even indefinite are the views which components the respective superordinate concept might consist of (see e.g. Baumert/Kunter 2006, 481; cf. Fig. 1).

In modelling competences we either make up scales which are open ended (“psychometrical approach”) or, more and more frequently, we underlie a stage structure consisting of a relatively small number of mostly hierarchical ordered stages the highest representing a degree of competence which might be reached only by very few people, if ever (“structure genetic approach”). Intuitively spoken, these people whether academic professionals or members of trades – from the perspective of an observer – stimulate the impression that they are acting on a high level of perfection. They behave without stress but eagerly, relaxed but concentrated, open for new experiences but equipped with a sufficient base of knowledge, *leger* but engaged on a stable motivational level, circumspect but nevertheless doing the things necessary without self-doubting meta-cognitions – in short and still provisional: they show something which according to Fritz Oser we might call “sovereignty”.

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<sup>1</sup> Interestingly enough, the subject index of the Fourth Edition of the “Handbook of Research on Teaching” does not even list the notions “competence” or “model” (Richardson 2001)!

Fig. 1: Structure of models of professional competence<sup>2</sup> (example)

<sup>2</sup> Collected and reassembled from scattered text resources. Mainly based on Shulman (1987) and Baumert/Kunter (2006).

In trying to establish this notion as a scientific term in the theoretical environment of “competence” at least three steps have to be gone. At first, the central meaning has to be developed and defined in terms of other theoretical notions, then, a prototypical operationalisation by measurement outlines has to be given and thereafter exemplary cases have to be shown in which this notion may overtake a useful and fruitful function.

This is an ambitious task which cannot be accomplished sufficiently within one single paper. What can be offered is to give an overview on some central ideas by outlining a sketch of the meanings of “sovereignty”, starting with an intuitive analysis based on the common use of “sovereign” (Chap. 2.1), then reconstructing this use by means of a complex term (Chap. 2.2), subsequently critically discussing this reconstruction (Chap. 3.1) and trying to identify its core meaning (Chap. 3.2) showing its compatibility with current models of competence (Chap. 3.3) and of development of competence (Chap. 4). Then, I give an example for the use of “sovereignty” in the context of teaching by outlining a stage model of teaching competence (Chap. 5) supplemented by few considerations on the measuring problem (Chap. 6) and a short final remark on the question put in the head title of this paper (Chap. 7).

## “Sovereignty” as a relational notion

### 2.1 Colloquial links

Let me start with an example which I got from Fritz Oser when he outlined his basic idea of “sovereignty” to me: Think of a waitress or a waiter in a restaurant who is serving her or his guests properly one after the other having permanently an eye on all customers, remarking if one of them would like to contact her or him and instantly reacting to such signals, knowing all single items a certain person has ordered, remembering these items when asked to calculate the bill, always keeping smiling and always polite and friendly even if there is a grumbling guest who – let’s say – has a tendency to complaining about anything. As an observer of such a person we might get the impression that she or he is “sovereign” – an impression which Wilhelm Busch, a German poet, smilingly and somewhat ironically depicted thus (s. Fig. 2).

Fig. 2: Impressions of an assiduous, flexible and caring (i.e. “sovereign”) waiter



*listening to the order*



*hurrying for execution*



*fishbone obstructing guest's trachea*



*guest dying, waiter saving the precious wine*

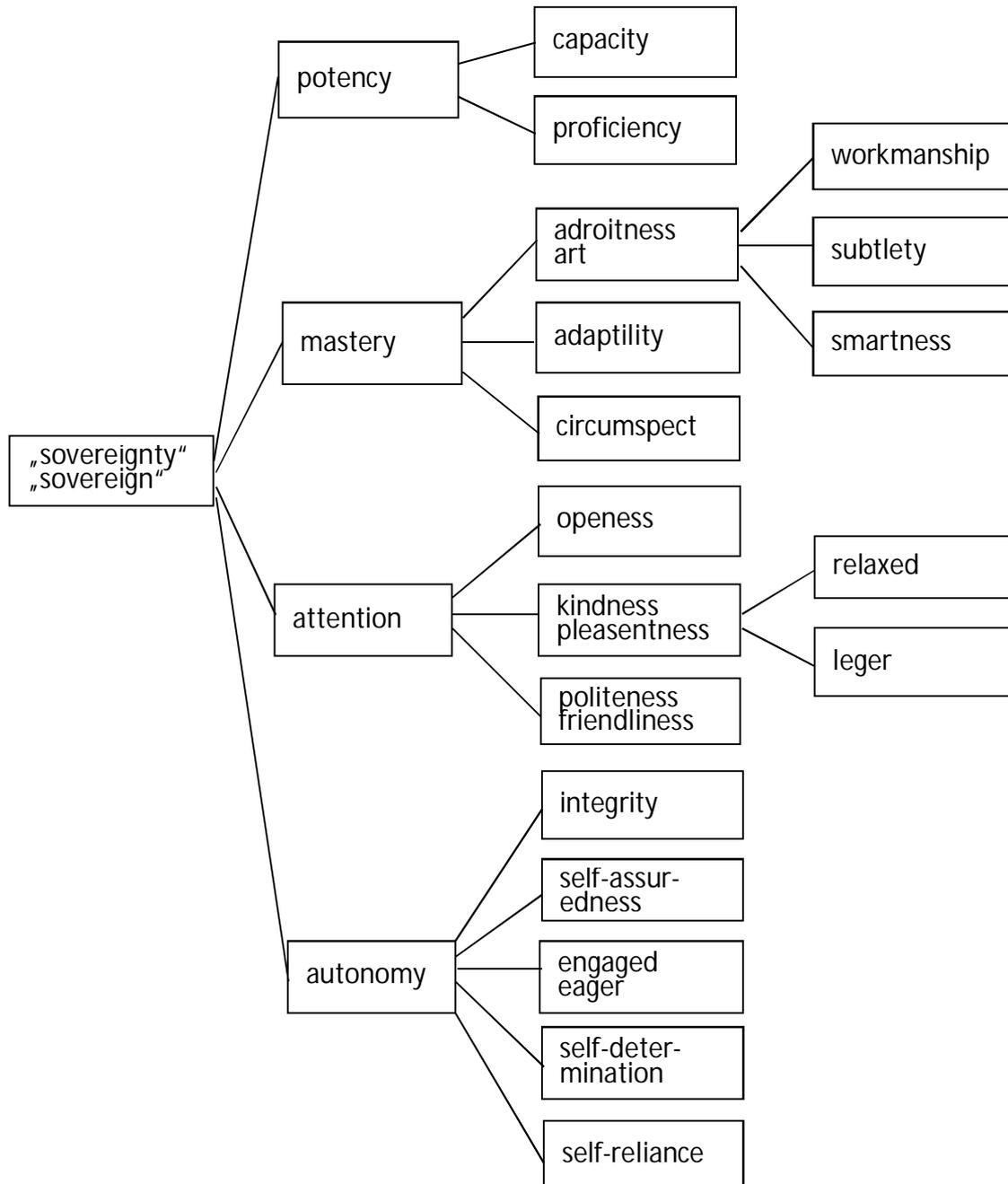
Indeed, one can expand this example to all working or even playing people and to all situations in which somebody follows certain rules or pursues certain objectives. In all these cases "sovereign" people seem to have an explicit or implicit consciousness of being competent, the willingness to act well, a feeling of self-efficacy and the knowledge of being respected as a specialist. "Sovereignty" of actors may occur or may be missed nearly everywhere, not the last with teachers.

Originally, the term "sovereignty" denotes a political and a juridical meaning indicating the *power* as well as the *right* of a person or an institution to exclusively and autonomously decide upon all affecting affairs. "Sovereignty" in this context is understood as a state of independence and supremacy, as opposite to heteronomy, and has firstly been philosophically elaborated by theorists of absolutism.<sup>3</sup> As far as I can see, this meaning is still prevailing in the English and even more in the French language. In German (and also in Dutch?) the notion "sovereignty" by and by has undergone a process of personalisation and has developed an additional meaning as indicated in the example above. In this new variant it denotes something like self-assuredness, self-reliance, self-determination and integrity as well as self-imposed internal standards of quality of one's own acting but also capacity and proficiency, furthermore adroitness or art in the shape of adaptability, workmanship, subtlety, smartness and not least, in many situations, pleasantness, openness, kindness – all in all a state or an attitude or a mindset of autonomy, potency, mastery and attention.<sup>4</sup>

The characterisations which were used above to circumscribe "sovereignty" in ordinary language are collected in the following Fig. 3.

<sup>3</sup> E.g. Jean Bodin, 1529-1596; cf. Wikipedia; "Souveränität"; download 2009-06-16.

<sup>4</sup> Cf. inter alia: Online Etymology Dictionary, download 2009-06-16; Team-Coaching, [www.souveränität.com/index\\_2.html](http://www.souveränität.com/index_2.html), download 2009-06-16)

Fig. 3: "Sovereignty" as characterised in ordinary language<sup>5</sup>

To summarise so far, in our ordinary life experience we meet with a phenomenon which we are used to name by the noun "sovereignty" or the adjective "sovereign". As researchers we take this as a starting point to analyse whether we can reconstruct this phenomenon theoretically and incorporate it into a system of theories – in our case psychological and educational theories –, then doing research on it and enlarging our knowledge by integrating the results into the corpus of descriptions of the world (cf. Popper 1982, 3).

<sup>5</sup> This graph is thought of as depiction of the meaning structure of "sovereignty". To be sure, there are many more expressions in colloquial language which may be introduced into a semantic net like this.

## 2.2 Specification and linguistically inspired analysis

Though in colloquial language (at least in German) we sometimes speak of a person by saying “she or he is sovereign”, this formulation is still under-determined. Using the notion “sovereignty” in a more deliberated way we refer to a certain situation in which a person is acting by coping with a certain challenge, may this challenge be set by herself or himself or by a third party. Thus, in this utilization “sovereignty” and “sovereign” are relational notions which refer to a personal state and, at the same time, to external circumstances. So, to attribute “sovereignty” to somebody explicitly or implicitly includes a reference to a type of situation or a type of task. Only with respect to these types a person may be expected or observed to act “sovereign”.

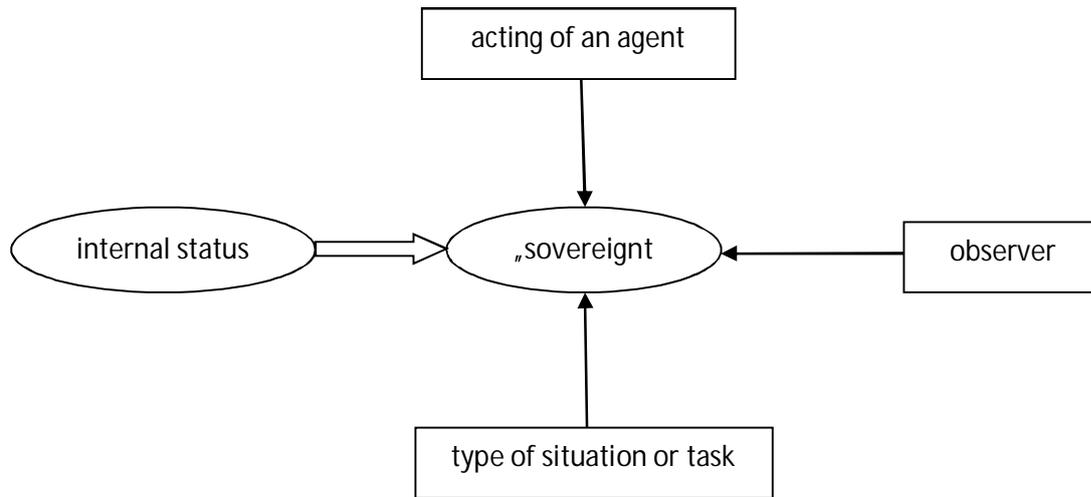
Next, we have to mirror a further facet of this meaning: It makes a difference whether we have to state that a person *feels* “sovereign” or whether this person – observed by another person – stimulates in the other person the impression of she or he acting “sovereign”. In this sense of “sovereignty” it is not enough that a person feels “sovereign”. This self-perception of an actor might even occur if none of her or his observers gets the impression that she or he is acting really “sovereign”. Think for example of a comedian in the theatre who misjudges his appearance as magnificent, or of a candidate in a television show who wants to become a superstar thinking her or his performance has been top, or also of a teacher who rules her or his class by oppressing any contradiction or obstruction believing that in so doing she or he being a good teacher.

In cases like these observers would not share the self-assessment of the actor. Rather, they possibly might be inclined to speak of a case of self-delusion but in no way of “sovereignty”.<sup>6</sup> Thus, we arrive at a next stage of specification: “Sovereignty” and “sovereign” denote or characterise the *way* and *quality* of acting of a person *in a given situation* or *under a given task* which *on the side of the actor* is accompanied by several interacting internal states enabling her or him to act well and *on the side of an observer* is stimulating an impression the actor having command of an aptitude to act well. More formally spoken “sovereignty” is a triple-digit (or triple-valued) predicate referring to (1) the acting of a person (2) in a given type of situation or on a given type of task (3) being observed and positively judged by a third party. Mind that the internal state of the actor is not included as a possible fourth value of the predicate “sovereignty” but is conceived as the causation of the phenomenon “sovereignty” (cf. Fig. 4).

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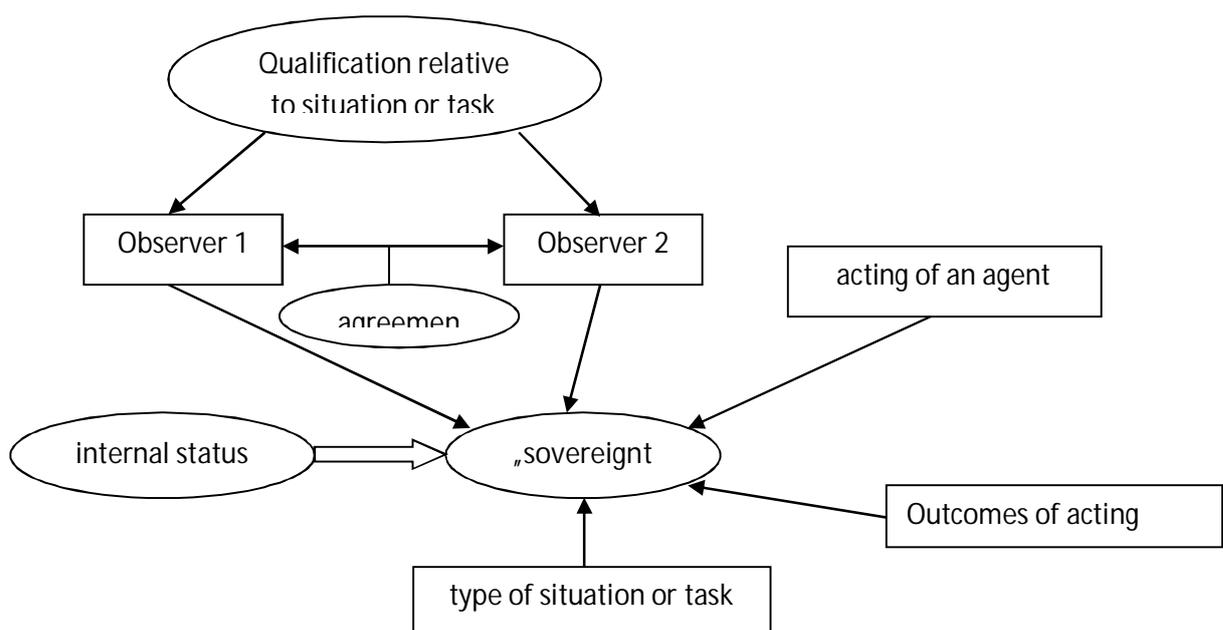
<sup>6</sup> Different from this constellation is a situation in which our actor brings herself or himself in a self-critical distance to herself or himself by virtually overtaking the role of an observer. But also under these circumstances she or he erroneously might judge herself or himself to be “sovereign”. A more detailed discussion of this issue is given below.

Fig. 4: "Sovereignty" as a triple-digit predicate



Obviously, there are some further specifications necessary to get to a more precise notion. E.g. the question may be raised whether it is enough to have only one observer convinced of the good quality of our agent's acting or whether it is a necessary condition for stating a case of "sovereignty" to have at least two observers who must agree in their positive judgement on the acting agent. In connection with this question it has to be asked whether the one observer or the multiple observers need(s) to possess the qualification to adjudicate upon the quality of the acts of an agent who seems to be "sovereign". Furthermore it has to be deliberated whether the results of the agent's acting should be a constituting feature of the meaning of "sovereignty". Adding these extensions the structure of the meaning of "sovereignty" might be depicted as shown in Fig. 5.

Fig. 5: "Sovereignty" as a multiple-digit predicate



It can easily be seen that given this interpretation “sovereignty” cannot be treated as a simple notion like names of colours or expressions of body height. On the contrary, “sovereignty” denotes a perceived mode, manner and quality of the observed and positively judged acting of a person, maybe including its effects, in a circumscribed setting, were it occupational or non-occupational.

## Reconceptualising “sovereignty”

### 3.1. Paradigmatic placement and terminological assignment

Within the scope of the interpretation given above “sovereignty” is characterised as a notion which is located within the paradigm of social constructivism or even of symbolic interactionism. Here we meet with other concepts like “respect”, “recognition”, “acceptance”, “trust”, “consent” and so forth. Like “sovereignty” these concepts are based on internal states and issued actions of at least two simultaneously attendant interacting persons thus constituting and describing something like an interpersonal or even transpersonal reality. To come into existence this reality is created by individuals exchanging sense and meaning by means of verbal or non-verbal communication. The entities denoted by this type of notions are said to be emerging from social interaction as objects which are immaterial and not-locatable.

From the point of view of methodological individualism, as one facet of Critical Rationalism (cf. Albert 1994), the idea of the existence of such entities is ontologically not at all acceptable and is thought of as a mere chimera, a pure phantasm, a meaningless pipe dream. No method can be specified to get interpersonal testable sensations or perceptions of such non-observable “things” nor is it possible to describe them independently of totally subjective ephemeral impressions.<sup>7</sup> Therefore the reconstruction of the notion “sovereignty” as given above based on colloquial associations is neither helpful nor admissible.

By following the rationale of methodological individualism we have to construct “sovereignty” as something which is totally and without any residual conceivable as an individual state or as the result of interplay of individual actions.<sup>8</sup> Certainly, the idea behind “sovereignty” is not to denote a product of interaction. Rather, “sovereignty” is thought to denominate a certain kind of acting or, more precisely, an internal state allowing an agent to act in a given situation in a way which has been characterized so far colloquially. It is this core of meaning which has to be retained.

According to this idea we can try to pick the characteristics of “sovereignty” and to reconstruct them within a model which can be adapted to current competence models like

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<sup>7</sup> As is well-known, in methodological individualism by definition latent traits are not observable, too. But via operationalisation we identify directly observable sections or aspects of behaviour which are treated as indicators for the latent non-observables.

<sup>8</sup> The latter is the case if e.g. by interaction between two artists a piece of music is to be heard or if by interaction of teacher and learner the store of knowledge of the learner has been expanded.

the one which has been outlined in Fig. 1. In doing so it is necessary to identify the internal states and traits which contribute to the becoming of “sovereignty”. Let us start by collecting the characteristics which have been listed in the beginning and assigning them to the theoretical constructs of the general competence model of Fig. 1. The following table shows this collocation.<sup>9</sup>

Tab. 1: Assigning colloquial descriptions of “sovereignty” to a general competence model

<b><i>Colloquial description</i></b>	<b>sub-competences and abilities</b>
<b><i>Potency</i></b>	<b><i>Subject matter competence</i></b>
<i>capacity</i>	domain specific knowledge
<i>proficiency</i>	domain specific aptitudes
<b><i>Mastery</i></b>	<b><i>Methodological competence</i></b>
<i>adroitness, art; incl. adaptability, workmanship, subtlety, smartness</i>	domain specific working techniques
<i>adaptability</i>	flexibility
	goal orientation
<i>Circumspect</i>	deliberateness
<b><i>Attention</i></b>	<b><i>Social competence</i></b>
<i>openness</i>	ability to communicate
<i>kindness, pleasantness, relaxed, leger,</i>	ability to handle conflicts
<i>Politeness, friendliness</i>	ability to co-operate
	social responsibility
<b><i>Autonomy</i></b>	<b><i>Personal/self(regulating) competence</i></b>
<i>integrity</i>	moral judgement competence
<i>engaged, eager</i>	motivational tendencies
<i>self-determination, concentrated</i>	volitional control
<i>self-assuredness, self-imposed standards, experienced recognition from significant other(s)<sup>10</sup> self-reliance</i>	self-concept  (internal) locus of control

To account for the fact that the meaning of “sovereignty” carries also a third-party inclusion, i.e. persons observing and judging quality of action as was described earlier it seems to be

<sup>9</sup> By chance, two sub-competences have not been addressed by our colloquially inspired description, “goal orientation” and “social responsibility”, a consequence of the fact that our unconsidered day-by-day thinking and speaking is not systematically organised.

<sup>10</sup> Obviously, this formulation reminds of one of Deci’s and Ryan’s (1985) basic needs which according to the authors stabilize positive achievement motivation.

reasonable to locate this aspect within the actor herself resp. himself by adding “*experienced social recognition from significant others*” (cf. Tab. 1).

Of course, the assignment in Tab. 1 is somewhat arbitrary because, by nature, the meaning of colloquial notions cannot be specified exactly. But this doesn't matter. Rather, the table shows that the translation of the idea of “sovereignty” into psychological and educational theory ends up in a multifaceted resp. multidimensional construct. This construct is still general in the sense that it doesn't include any domain specific information. Two sub-competences, namely “subject matter competence” and “methodological competence”, hold free valences for the addition of domain and situation specific abilities and skills.<sup>11</sup>

### 3.2. “Sovereignty” within a structure of developmental stages

Next, we have to ask for the states or degrees which – as a precondition – the listed attributes should arrive at if “sovereignty” might be assessed. Intuitively, “sovereign” seems to be used dichotomously, i.e. one can only state that a certain person behaves “sovereign” or “not sovereign”. On the other hand “sovereignty” could be reconstructed easily as a continuously varying attribute by differentiating lower and higher degrees of “sovereignty”, i.e. by saying that this person seems to be more “sovereign” than another (“psychometrical approach”). In following Piaget's approach (1956; 1968; Piaget/Garcia 1983) competence models should be built of constructs which allow for the differentiation of (few) *qualitative* stages. According to his proposal “sovereignty” will be conceptualised here as a dichotomous notion (for some reasons to do so see Chap. 0 below).

Having this in mind I would like to offer a different reconstruction of “sovereignty”. At first, I suggest to conceive “sovereignty” not as a synonym for (a very high) “competence” though the previous discussion allowed for this interpretation. The basic idea is that we can observe “sovereignty” on different levels of quality. Think e.g. of a famous pianist travelling from concert house to concert house, enjoying standing ovations and being flattered by the world of art. Maybe, you think of Glenn Gould, the most perfect interpreter of Johann Sebastian Bach's Well-Tempered Clavier. Nobody would hesitate to attribute to him “sovereignty”. On the other hand we can think of a young child having been educated for some months in playing piano and now, by imitating the teacher, being able to play bimanually a melody of two voices by heart. If this playing is, let's say, not only without mistakes but melodious, if this child may concentrate on the sound not paying attention to the movement of her or his fingers, we might also be ready to denote this performance as “sovereign” – of course within the scope of her or his possibilities.

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<sup>11</sup> To be even more general one might like to omit the social competence dimensions because they do not apply to activities which are or may be carried out without partners like solo mountain climbing, cleaning buildings, doing homework, being a lighthouse operator, working as a single artist or doing research in historical archives as a professor of humanities. Again, this is not very much important and can be treated as a side problem which has to be solved by formulating the competence model for a certain domain.

Between this child's stage of musical development and that of Glenn Gould further stages of competence in playing piano can be established. And on each stage we may observe a state of "sovereignty". To describe it in our example: After some two years of exercising the child may have learned to read and play from notes. In the beginning of this higher stage everything seems to be complicated: to look at the notes and at the same time to hit the corresponding keys, to keep time and rhythm and to observe the prescriptions for sound intensity, not to speak of the sound-*gestalt* of the piece as a whole. After some more exercises the moment will come when our student player succeeds for the first time in doing everything well. This is not yet the state of "sovereignty" yet it is nearby. But then, when the player is freed of technique difficulties and is able to centre her or his attention to the sound of the playing she or he may have arrived at a state of "sovereignty". Of course, this state is clearly still lower than that of, say, Glenn Gould.

To put it more generally: According to the interpretation given just now "sovereignty" describes a state of consolidation or, as Piaget (1976) has phrased it, a state of "equilibration", a state of "perfection" ("Vollendung"<sup>12</sup>; 1993, 48) on one of the stages of a developing competence. Each stage of competence, theoretically modelled by rising qualities of its constituting attributes, can be divided into two sub-stages, that is to say: "capability" as the first, the beginning sub-stage and "sovereignty" as the second, the perfection sub-stage.

Obviously, this construction is closely related to the sub-stage approach developed by Kohlberg in elaborating the concept of moral judgment stages where he differentiated between "Stage B" as being more developmentally advanced than "Stage A" (cf. Colby/Kohlberg 1987, 322-326). Kohlberg, in turn, followed Piaget's concept of cognitive development which postulates within each logical stage a number of sub-stages through which development proceeds (cf. Inhelder/Piaget 1958). Kohlberg and his group have abandoned the sub-stage approach because on the bases of their data they could not corroborate their respective hypotheses in the realm of moral development. But they substituted this distinction later on by a 'heteronomy – autonomy' distinction (cf. Colby/Kohlberg 1987, 322).<sup>13</sup> Looking from the perspective of current advanced competence research it still seems to make sense to retain the conceptualisation of sub-stages.

### 3.3. Distinguishability and distinction of "capability" and "sovereignty" as sub-stages

To draw a distinction between "capability" and "sovereignty" I propose to relate approximatively on an idea which has been inaugurated for the context of implicit knowledge by Michael Polanyi (1966) and has been elaborated for the educational context

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<sup>12</sup> Piaget conceptualizes any stage by two "phases" which he names as "preliminary" and "perfection phase" (»Phase der "Vorbereitung" und der "Vollendung"«; 1993, 48).

<sup>13</sup> Here it is not the place to discuss why the Kohlberg group didn't succeed in the validation of their hypotheses. I personally believe that the reason for it have been some shortcomings in the operationalization of the differentiating criteria.

by Georg Hans Neuweg (1999). I am trying to give a short sketch of it. The authors introduce a distinction between two levels of consciousness or awareness: The “focal consciousness” or “focal awareness” is oriented towards an object a person is dealing with or is interested in. The “background consciousness” (Neuweg) or “subsidiary awareness” (Polanyi) includes the totality of all internal instances, states and processes the person is making use of by focusing the object. For this distinction Polanyi also uses sometimes the more pictorial phrases: “objects of attention” and “instruments of attention” or, more generally and abstractly “distal term” and “proximal term” (cit. by Neuweg 1999, 187). Characteristically the “instruments of attention” are preconscious, i.e. we make use of them without becoming aware of it. By contrast, the “objects of attention” compose the content of our active awareness. In the following I prefer to speak in short of the latter as “focal object”, of the former as “instrumental base”.

To give an example: Think again of a piano player, say Glenn Gould, playing and simultaneously listening to his interpretation of Bach’s Prelude in C-major (cf. Fig. 6). His focal awareness is oriented to the sound he is creating while he is acting on the base of corresponding “instruments”, i.e. his ability of moving his fingers upon the keyboard unerringly and deftly, striking exactly and sensitively the keys, having the course of melody of all the parallel voices in mind, also being able to sustain high concentration throughout his performance and so forth.

Fig. 6: Glenn Gould performing Bach



Fig. 7: Artist exercising Bach



By contrast, now imagine a piano player still exercising to play the same piece of music. He has to be aware of every note, may be in some passages even of every movement of his fingers, of every keystroke etc. (cf. Fig. 7). Let us suppose that he has command of all internal elements necessary to play the same piece as Glenn Gould does, i.e. he is not at all a beginner but an advanced player. Nevertheless, for him the *focal object* is the simultaneous activation of all the different abilities needed to get the notes translated to ringing music.

Everybody will remark the difference between the both performances though both artists may have available the same abilities and skills, that is to say: the same "*capabilities*". The difference I would like to draw to your attention is that we may say Glenn Gould has arrived at the sub-stage of "sovereignty" whereas his counterpart is still remaining on the sub-stage of "capability".

To illustrate this view a little bit more remember the example given above dealing with piano playing children. Again, we could imagine that two different children play the same piece, say the first part of Beethoven's "For Elise" in a-minor, which consists of only one voice for each hand, the first already knowing this piece by heart and having full command of playing it expressively, the second working on its acquisition (cf. Fig. 8 and Fig. 9). Again, we might state, that – nota bene: restricted to this domain and to this situation – the boy is still acting, let's say, on stage two of piano playing, sub-stage "capability" whereas the girl has already reached stage two, sub-stage "sovereignty".

Fig. 8: Girl acting "sovereign" as pianist

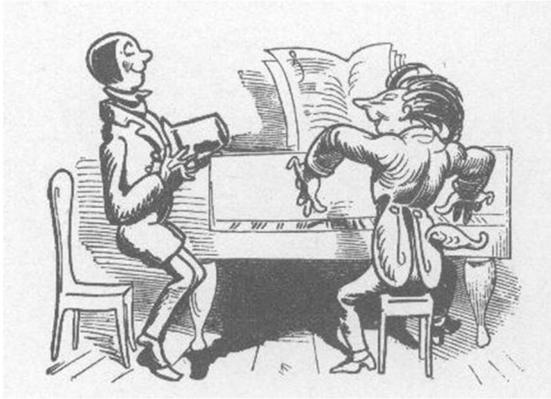
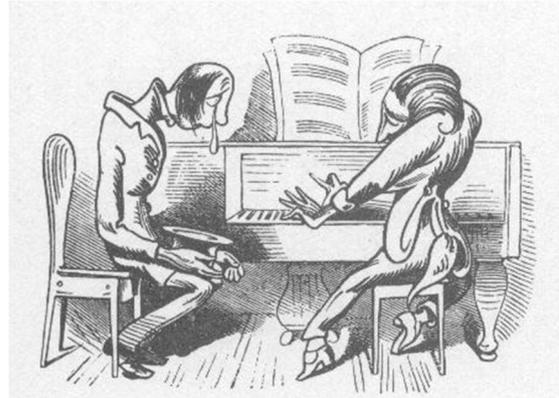
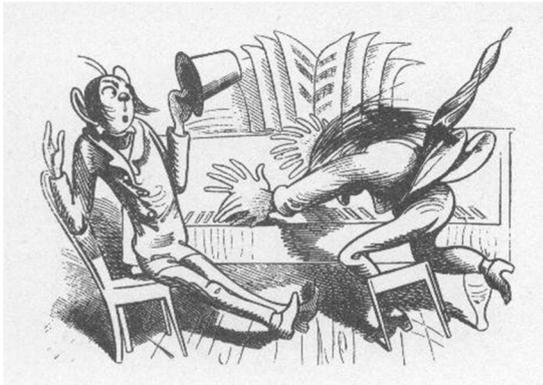
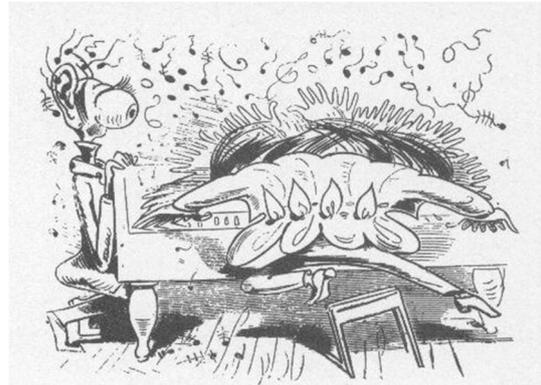


Fig. 9: Boy acting "capable" as pianist



The earlier mentioned Wilhelm Busch we owe another example of "sovereignty" seemingly still one stage higher than all famous pianists known so long in the world of classic music (s. Fig. 10).

Fig. 10: Pictures of "sovereignty" selected from Wilhelm Busch's "The Virtuos"

*Scherzo**Adagio con sentimento**Forte vivace**Finale furioso*

To pick one or two further examples for Polanyi's fundamental distinction: Think of a beginner of learning to read who is already able to identify single letters. On this basis ("instrumental base") she or he now focuses on whole words (focal object). Next, by having command of recognising whole words (now the new instrumental base) attention is directed to read words in context, i.e. to get to whole sentences (focal object), followed by trying to perceive the sense of the sentences (new focal object) on the basis of being capable to read its single words reasonably fluently (instrumental base). Or the other way round, think of a researcher writing down his latest insights (focal object) by stringing together the letters of single words (instrumental base). Imagine that she or he pauses for a second because she or he is not sure how to spell correctly a special expression. At that moment she or he steps back on the knowledge base of orthography (now instrumental base) by focusing on the word in question (focal object). During this (more or less short) phase the sense of the whole sentence which is nascent (former focal object) gets out of the range of attention – and hopefully doesn't get lost! The same problem would happen if, say, a high jumper during executing a try to establish a record for a moment during her or his run-up focuses on the movement of his legs (now focal object, beforehand instrumental base). In doing so doubtless she or he will fail.

## A developmental view

Now, given a certain competence structure, which alterations cause a movement from sub-stage “capability” to sub-stage “sovereignty”? Again, on the present level of generality we cannot name changes in *domain specific* sub-competences, abilities or skills which might contribute to a transition from “capability” to “sovereignty”. To be sure, for a precise empirical analysis it is totally indispensable to identify theoretically the particular attributes involved in this process. However, a general answer to this question is given below.

Abstractly spoken, as a presupposition the single attributes composing the possibility of acting “sovereign” (i.e. knowledge, abilities and skills, of emotional and motivational states, of self concept, self-esteem, locus of control as well as of a feeling of social recognition and experienced respectfulness and so forth (cf. Fig. 1)) must have reached simultaneously a well co-ordinated state of development (attributes functioning quasi as “bottlenecks” by restricting “capability” to the performance of the weakest link of the chain). This state of development allows for fluent and uninterrupted “hand in hand” interaction of these components. According to Piaget (1976) we can call this state a “state of equilibration” where none of the relevant attributes is either underdeveloped or elaborated far beyond the others.<sup>14</sup> To move from this state of “capability” to the state of “sovereignty” *two* stimuli and *one* internal condition have to be activated thus generating an increasing *push and pull* constellation (cf. Fig. 11):

- (1) The internal feed-back from the self-imposed standards for the given action (whether only one single act or, as in our musician example, a sequence of acts) has to consist of two messages, the first saying that, technically spoken, the action can be executed now without failures, the second saying that the given quality of action as measured by ideal standards is not yet reached.
- (2) Perception of external feed-back from one or more significant other(s), if present, has to go the same way, i.e. it has to express recognition from the significant observer(s) for the present acting of the person and, at the same time, it has to signal that the respective acting might be improved still more.

Given this stimulus constellation and, additionally,

- (3) given the achievement motivation to reach the internal and external imposed standards the movement to “sovereignty” will be *initiated*.

As we have conceptualised this movement as transition from sub-stage to sub-stage we now can describe it as a change in the “awareness” of our acting person:

- (4) The execution of action which has been so far the “focal object” now moves “back” and functions as “instrumental base” or, to pose it figuratively, as a base on which the acting of our person now is “standing”.

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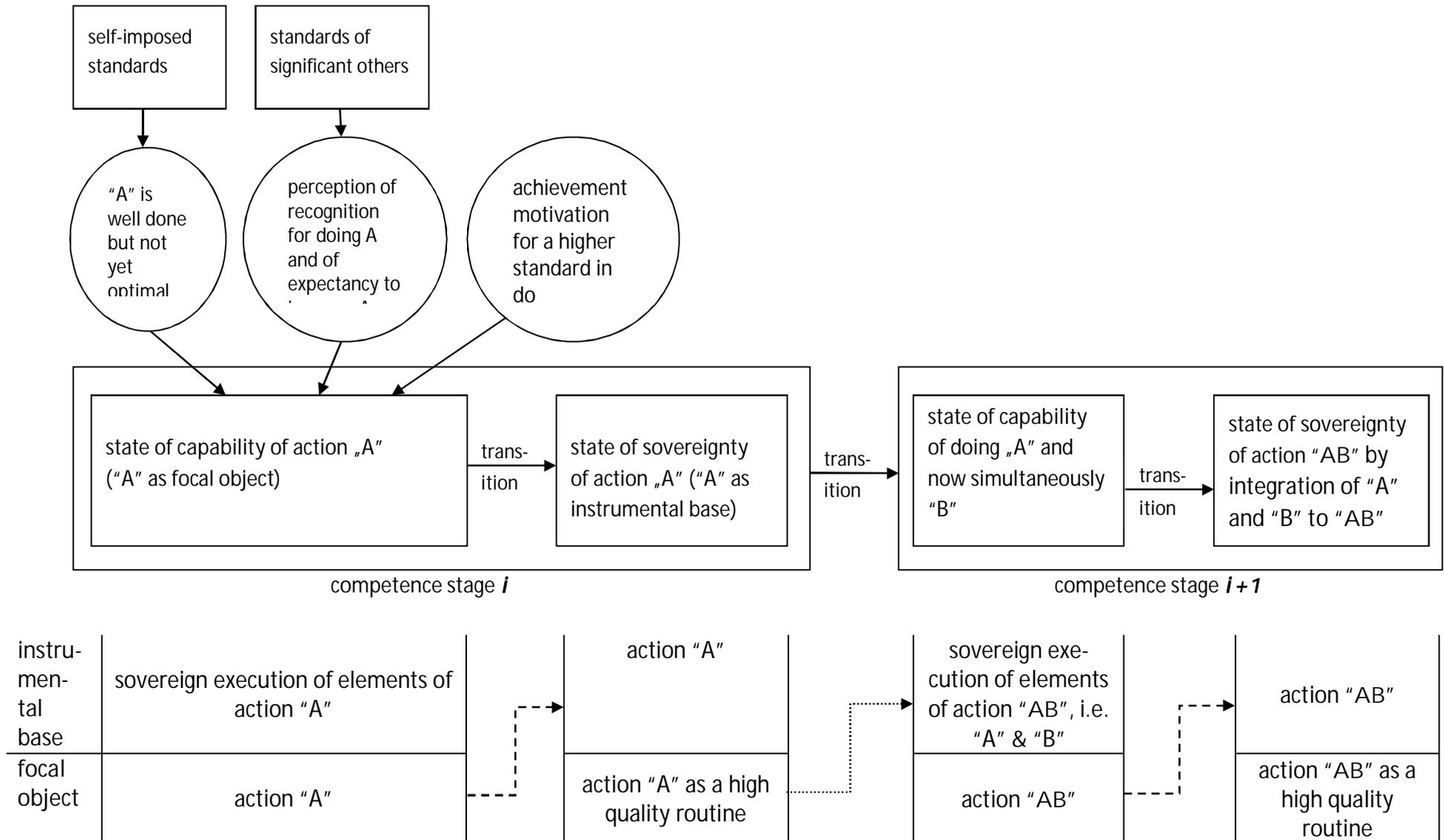
<sup>14</sup> By the way, this latter state of affairs is part of the requirements for a movement to the next higher stage of competence (see Chap. 5 below).

The new "focal object" becomes the elaboration of the action as a high quality routine which allows for focusing the attention on the external effects of the action, whether material or social, and to try to embed this action into a widened scenario in which new components of the complex reality can be perceived, taken into account and reflected. In Piaget's words (1976) this is the achievement of a higher level of equilibration. To put it more technically: a transition from "capability" to "sovereignty" happens by moving the former "focal object" to the "instrumental base" and by introducing a new "focal object" which is partially based upon the mastery of the former "focal object".<sup>15</sup>

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<sup>15</sup> To some extent this conceptualization is reminiscent of the interpretation of learning as the intellectual production of redundancy by building so-called super symbols (cf. Frank 1962; von Cube 1965) or as the production of chunks (or schemes) by combining several mental elements to one including element (Miller 1956). But it is still different from these views not only in being developed within the research program of genetic structuralism but also in stressing the difference between non-conscious or preconscious abilities on the one hand and conscious objects of intention on the other.

Fig. 11: Causal (top) and terminological (below) relations of sub- stage transition



In addition to this description of the transition from sub-stage “capability” to sub-stage “sovereignty” it might be mentioned that the transition from a given stage ( $i$ ) to the next higher stage ( $i + 1$ ) according to Piaget (1956) will be initiated by further development of one or more of the elements on which a sovereign execution of an action is grounded. Elements in this sense can be: single skills or abilities, the acquisition of subjective new knowledge and insights, raising internal or perceived external standards as well as motivational gains, new emotional orientations or other components of a given competence. These changes cause a new disequilibrium. They stimulate efforts and a struggle for the enhancement of the hitherto reached stage of competence. When this happens the transition to sub-stage “capability” of the next higher stage has been accomplished. But, of course, this will not necessarily happen. Possibly the stage of development reached so far will be maintained. Furthermore, it may be that one or more of the conditions named above will not remain but become worse and so entail an inverse disequilibrium which might initiate a regressive development.<sup>16</sup>

### Stages of “sovereignty” in teaching

Unfortunately, as far as I can see, up to now in the literature there is no attempt to be found to elaborate a theory based stage structure model of teaching.<sup>17</sup> Rather, there are very many more or less general models of relevant sub-competences, abilities and skills, partly including measuring instruments. These models are based on the assumption that the relevant competences develop continuously (i.e. not stage by stage). Though, with some reservations, it might be possible to reinterpret them structure-genetically it is urgently necessary to design genuine stage models on the base of an elaborated stage theory. Asking whether it is possible at all to justify the use of continuous models in this field there are – at least to me – good reasons to deny this question (cf. Minnameier 2000). As has been argued above the transition from focusing an object of attention to its integration into the “instrumental base” is a striking example for the plausibility of the fundamental supposition that (at least some) “movements” in mental development are discontinuous (i.e. stage by stage).

Of course, within the present paper it is totally impossible to discuss this basic question, not even superficially. But to give at least a rough idea what “sovereignty” could mean in the domain of teaching we are in need of something like a framework of a stage model of development of teaching competence. The following Tab. 2 outlines a sketch of such a model partly based on the general competence model given in Fig. 1, partly on the

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<sup>16</sup> An example for this phenomenon occurs with the burn-out syndrome when a person loses step by step competencies, abilities, skills or even knowledge she or he has had command of so far (cf. Schaarschmidt/Kieschke/Fischer 1999).

<sup>17</sup> Interestingly enough in her article on “better conceptualizations” of teacher’s professional development Desimone (2009) even doesn’t mention the idea of stage development models at all. – By contrast there are many stage models to be found with regard to the development of student competences whether theoretically grounded as is the case with Kohlberg’s work or based on empirical data (e.g. Seeber 2008).

theoretical frame used in the COACTIVE study on teachers of mathematics (Kunter/Klusmann/Baumert 2009, 155), also partly based on the “Professional Minds” project which includes 45 standards of teacher competence<sup>18</sup> developed by relying on data of an expert survey and bundled into four main groups (e.g. Oser/Heinzer 2009, 173 f.; cf. also Oser 2001). Not worthy to mention that this conceptual outline might be debated and also modified in many details. Albeit, it offers an impression of how a stage model could look like and, what is more important, it allows for an exemplification of what has been devised so far with respect to the concept of “sovereignty”.

As can be seen (cf. Tab. 2) teaching competence is comprised from the very beginning as a complex entity developing in several dimensions which are supposed to interact in generating teaching behaviour. The six stages are hierarchically integrated, i.e. each higher stage includes the skills, abilities, knowledge as well as the non-cognitive achievements which characterise the stage(s) below. So, in “describing” a higher stage only the new qualities are listed which are characteristically for it. And, what is more important, the difference between the stages is *qualitative* in the sense that on a higher stage there is not only “more” of a given attribute but the attribute has developed a higher level of “moulding”.

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<sup>18</sup> Only few of them specifically for VET teachers.

Tab. 2: Sketch of a developmental stage model of teacher competence<sup>19</sup>

	Level 1: NOVICE					
<i>sub-competence:</i>	sub-stage	Stage 1: Beginner	sub-stage	sub-stage	Stage 2: advanced	sub-stage
knowledge on ...	c a p a b l e	<ul style="list-style-type: none"> <li>• domain specific content</li> <li>• learning processes</li> <li>• pedagogical diagnostics</li> <li>• <u>domain spec. didactics: justification of objectives</u></li> </ul>	S O V E R E I G N	c a p a b l e	<ul style="list-style-type: none"> <li>updated</li> <li>deepened</li> <li>amplified</li> </ul>	S O V E R E I G N
methodological comp.		working techniques			orientation on teaching related standards**	
social comp.		communication			co-operation, team teaching	
personal/self-comp. <ul style="list-style-type: none"> <li>• mot. tendencies</li> <li>• moral judgment</li> <li>• self-concept:               <ul style="list-style-type: none"> <li>▪ locus of control</li> <li>▪ self-assuredness</li> <li>▪ standards of performance</li> <li>▪ self-reflection</li> <li>▪ experienced recognition</li> </ul> </li> </ul>		engagement, motivation to teach stage 2 (Kohlberg); avoiding decision (Oser)*** mainly external low diffuse readiness; first trials very weak positive			sustained stage 3 (Kohlberg); delegating/ security seeking (Oser)*** partly ext., partly internal medium specified more precisely with respect to content and teaching methods restricted on methods weak positive	

\* adapted from COACTIV study (Kunter/Klusmann/Baumert 2009, 155)

\*\* according to Maiello/Oser (2007, 4)

\*\*\* according to Oser (1994)

<sup>19</sup> Within „personal-/self-(regulation) competence “sub-competence “volitional control” (cf. Fig. 1) is disregarded because it is thought to be highly developed throughout stage progression.

Level 2: Expert						
<i>sub-competence:</i>	sub-stage	Stage 3: experienced	sub-stage	sub-stage	Stage 4: versed	sub-stage
knowledge on ...	c a p a b l e	<ul style="list-style-type: none"> <li>• updated, deepened, amplified</li> <li>• soc.-psych. of learning</li> <li>• <u>domain spec. didactics: domain specific explanatory knowledge*</u></li> </ul>	S O V E R E I G N	c a p a b l e	<ul style="list-style-type: none"> <li>• updated, deepened, amplified</li> <li>• legal, inst., org., polit. framework</li> <li>• <u>domain spec. didactics: mental models of students (incl. misconcept.)*</u></li> </ul>	S O V E R E I G N
methodological comp.		<ul style="list-style-type: none"> <li>• deliberateness</li> <li>• orient. on learning process related standards**</li> </ul>			<ul style="list-style-type: none"> <li>• orientation on teaching related standards**</li> <li>• basics in counselling</li> </ul>	
social comp.		taking over social responsibility			handling conflicts by discourse	
personal/self-comp. <ul style="list-style-type: none"> <li>• mot. tendencies</li> <li>• moral judgment</li> <li>• self-concept:               <ul style="list-style-type: none"> <li>▪ locus of control</li> <li>▪ self-assuredness</li> <li>▪ standards of performance</li> <li>▪ self-reflection</li> <li>▪ experienced recognition</li> </ul> </li> </ul>		sustained stage 4 (Kohlberg)/unilateral, single-handed decisn. (Oser)***  mainly internal high stage 2 (s. above) internalised  further trials, adopting third person point of view positive			sustained stage 5 (Kohlberg)/incomplete discourse (Oser)***  completely internal medium (by regression)° justice  observing critical burden  highly positive	

° On this higher stage "absolute certainty" erodes and makes room for "productive scruples" which are a prerequisite for qualitative new learning.

Level 3: PROFESSIONAL						
<i>sub-competence:</i>	sub-stage	Stage 5: specialized	sub-stage	sub-stage	Stage 6: generalist	sub-stage
knowledge on ...	c a p a b l e	<ul style="list-style-type: none"> <li>• updated, deepened amplified</li> <li>• individualization</li> <li>• domain spec. didactics: strategies to intervene directly in misconceptions</li> </ul>	S o v e r e i g n	c a p a b l e	<ul style="list-style-type: none"> <li>• updated, deepened amplified</li> <li>• domain spec. didactics: individualisation of objectives</li> </ul>	S o v e r e i g n
methodological comp.		<ul style="list-style-type: none"> <li>• orient. on co-operation related standards**</li> <li>• counselling</li> </ul>			<ul style="list-style-type: none"> <li>• school development</li> <li>• networking</li> <li>• quality management</li> </ul>	
social comp.		differential attention to (types of) individual students			handling conflicts by discourse	
personal/self-comp. <ul style="list-style-type: none"> <li>• mot. tendencies</li> <li>• moral judgment</li> <li>• self-concept: <ul style="list-style-type: none"> <li>▪ locus of control</li> <li>▪ self-assuredness</li> <li>▪ standards of performance</li> <li>▪ self-reflection</li> <li>▪ experienced recognition</li> </ul> </li> </ul>		<p>sustained</p> <p>stage 3 (moral adaptation to student interaction)<sup>+</sup>/complete discourse (Oser)<sup>***</sup></p> <p>completely internal higher than medium care</p> <p>emotional balancing positive and negative experiences</p> <p>highly positive</p>			<p>motivation to improve framework conditions differential morality relative to realms of action<sup>++</sup></p> <p>mainly internal medium efficiency</p> <p>efficient self-management</p> <p>positive</p>	

<sup>+</sup> By development of domain specific morality; progress to an enlightened moral relativism (cf. Beck 2006)

<sup>++</sup> E.g. on stage 3 (Kohlberg) in interaction with students, parents, colleagues; stage 4 in matters of school development; stage 2 in bureaucratic affairs etc.

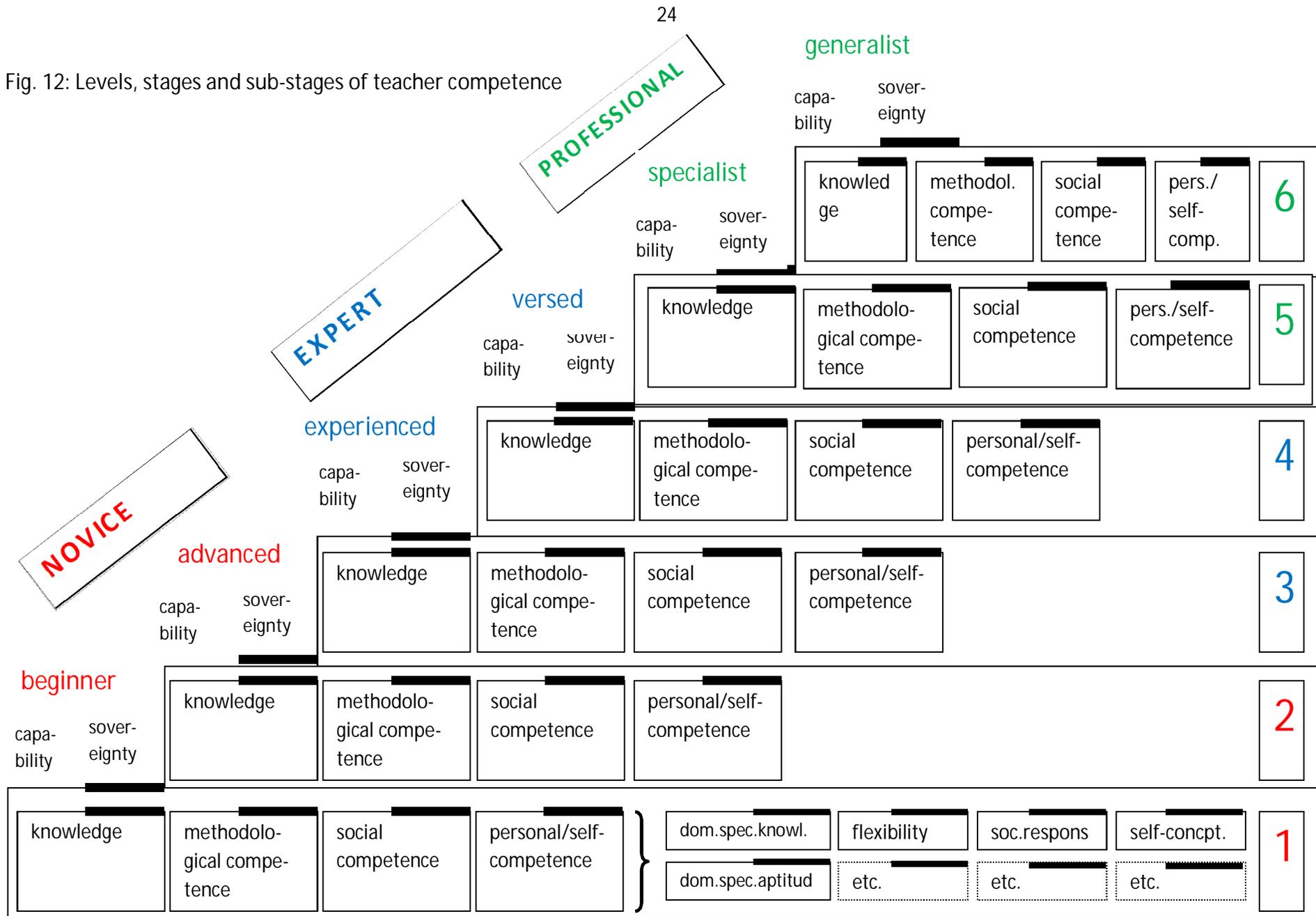
Now, as has been argued, within each stage we have to differentiate between a first sub-stage on which the new potentiality stays in the focus of attention of our teacher, i.e. "capability", and a follow-up sub-stage on which the new potentiality has been internalized ("assimilated" in Piaget's terminology (1976)) thus providing an "instrumental base" for acting "sovereign" by making unconscious use of that potentiality. On the "capability" sub-stage the teacher is struggling for a no-friction and smoothly integration of her or his newly acquired knowledge, ability, skill and so forth by experimenting and making experiences with the additional scope of action in different situations (included the recognition she or he gets from her or his social environment, mainly students, parents and in some cases colleagues or headmasters, too!). By and by it becomes routine to make use of that potentiality. Then, the moment is coming up when for the first time the use of it happens to be unconscious – a developmentally and cognitively important leap of quality and, at the same time, the beginning of sub-stage two: "sovereignty".

So, for each stage the delineation in Tab. 2 comprises the (additional) stage-characteristic cognitive and non-cognitive abilities and skills on the one hand as elements of "capability" (focal object) and, on the other, as a fundament for "sovereignty" (instrumental base).

To go one step further, in modelling the stage transition process one can look at every single attribute characteristically for a given stage (cf. Fig. 1: the elements of subject matter competence, of methodological competence, of social competence, of personal/self-competence). Analogously, each attribute may (and should) be reconstructed by a stage model which allows for the identification of development stages (cf. Fig. 12; a well-known example is moral development as part of personal/self-competence). But, of course, this could be done throughout the whole list of attributes included in the concept of teaching competence. From a developmental point of view the way through the single stages upwards follows similar steps as have been outlined above for the transitions within the comprising stage model, i.e.

- (1) emergence of disequilibrium (initiated by learning and experience),
- (2) struggling for reaching a higher standard of quality and acquisition of the new potentiality,
- (3) internalise and habitualize ("assimilate") it as a focal object by experimenting and exercising (sub-stage "capability"),
- (4) sinking of the new potentiality into the state of pre-consciousness as an instrumental base of acting (sub-stage "sovereignty") and, at the same time, opening the horizon of perception for new problems and experiences which, in turn, might stimulate needs for further learning and deliver volitional, emotional and motivational energies to put it into action (see (1)).

Fig. 12: Levels, stages and sub-stages of teacher competence



Moreover, this developmental pattern applies again when we look at the (four) different sub-competences of teaching (cf. Fig. 1 and Fig. 12). Each of them can be analysed in exactly the same way, i.e. as a facet of teaching competence developing stage by stage by following the four steps mentioned above. To put it somewhat technically: The model presented here is *recursive* in that it reconstructs the developmental process of teacher competence as a multiple nested hierarchy of stagewise evolving and interacting attributes generating step by step higher levels of competence and thus, by degrees, enabling a person to perceive and to solve problems of increasing complexity. Concededly, this view discloses again emphatically the difficult structure of the process of development of teaching competence. But, on the other hand, it offers the possibility for a professional diagnostic insight in single developmental deficiencies somebody might exhibit and opens the chance for systematic and targeted remedy interventions (cf. Pinard/Laurendeau 1970, 307-309).

### **A crucial question: How can “sovereignty” be measured?**

By now, there are a lot of instruments for measuring facets of teacher competence (e.g. for German speaking countries: Bloemeke et al. 2009; Frey 2006; Kieschke/Scharschmidt 2008; Kunter/Klusmann/Baumert 2009; Oser/Heinzer 2009; Oser/Düggeli/Heinzer (2009); Rotter 1966; Schwindt et al. 2009). As most of them are based on a “continuity paradigm” (see Chap. 3.2) they fit only with reservations into the stage model outlined above because they cannot map scale sections which enclose qualitative leaps. Nevertheless they can be used alternatively as tentative substitutes in this latter context, too. This is because the measures they produce might be categorized and projected on ordinal scales whether by theoretical deliberations or by inserting breaking lines into an array of empirical data.

Partly, other measuring instruments work qualitatively (based on interview or questionnaire data). Mostly, these methods cannot be used with our structural genetic approach except for instruments which are explicitly devoted to a stage model (as is the case with Kohlberg’s “Moral Judgment Interview”; cf. Colby/Kohlberg 1987).

As far as I can see, at present there is no instrument apt to identify sub-stages of development, i.e. “capability” and “sovereignty”, as they have been sketched out above. The task they had to fulfil is to bring forward whereupon the attention of an acting person is directed, i.e. what the content of the “focal object” is. Obviously, this is a latent entity which cannot be observed directly. Therefore it is the question how the actual forming of this entity can be reconstructed by indicators. Preferably these indicators should be located in immediate causal relation to the latent state of affairs of the interesting entity.

In principle, two sources of information can be used to get a measure on the internal states of interest, namely (a) observation by a third person or (b) by introspection (the first-person

observational approach)<sup>20</sup>, the latter in turn to be divided up in two variants, i.e. introspection along with acting (e.g. thinking aloud) or retrospective introspection (e.g. stimulated recall). However, though this procedure would provide very interesting process mirroring data, it is hardly imaginable that teachers think aloud during teaching why this variant is here out of the question. Third-person observation, on the other hand, provides real time process data but with the limits that these data are less valid. Additionally, in both remaining cases we have to make an inference from what has been observed by a third person<sup>21</sup> or what has been told by the first person – a situation which, concededly, is quite common as long as we do not have direct neurophysiologic measures.

What makes things more complicated in our case is that the “instrumental base” of acting, as it has been defined above, may include *very many* of the single “capabilities” an acting person has acquired so far. Although we can restrict the range of eligible “capabilities” to those “capabilities” which are closely relevant for an emitted (issued) action (and thus exclude e.g. a teacher’s capability to play piano as relevant for her or his behaviour during a mathematics lesson) we still do not know exactly which single capabilities contribute to this action.<sup>22</sup> Therefore measurement of “sovereignty” has to concentrate on what is the “focal object” of an acting teacher. The content of attention, by definition, is conscious and hence reportable by an actor. Knowing the content of focal attention in principle it is possible to draw a conclusion on what the content of the “instrumental base” must be.

In some cases a third-person observer may also get a reliable impression of what the “focal object” of the person observed is. E.g. think of a novice teacher who gives one of her or his first lessons. It is very likely that this teacher looks very often on her or his plan for that lesson and also on the textbook(s) prepositioned – a behaviour which signalizes that her or his “focal object” (at least temporarily) is the domain specific content to be taught and, may be, additionally the sequence of questions to be put or the next steps to be gone. Given this as a valid observation we would conclude (i.e. infer) that this teacher amongst others (see footnote 22) is “capable” of presenting a certain content, of putting pedagogical relevant questions on this content, of following her or his plan for the lesson and so forth but is not yet “sovereign” in doing so. This were only the case if she or he could make unconscious use of these “capabilities” and – given this example – now might focus on putting situation adapted domain specific tasks (cf. Tab. 2, stage 1 and 2). In cross-validating this finding generated by an observer one could confront the teacher with videos of the scenes observed and ask on which objects her or his attention has been focused (what she or he had in mind) at that time.

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<sup>20</sup> I do not discuss here the epistemological status of self-knowledge as well as the question whether our “privileged access” to our internal states guarantees true insights (a detailed discussion of this topic is to be found in *Erkenntnis*, Vol. 71, No. 1, July 2009, all articles.

<sup>21</sup> For an overview on the many pitfalls which can occur with third person observations cf. e.g. Beck 1987.

<sup>22</sup> The reason for this is that our models of teaching competence are not elaborated downwards to the very bottom of elements of behavior (single gestures, body movements, treasury of words etc.).

Obviously, the higher the stage a certain teacher has already reached the lower is the possibility to capture in detail her or his “focal objects” by third-person observation though an experienced observer may at least get an impression of what the observed teacher has at her or his full command.<sup>23</sup> This impression might lead to specific and differentiated hypotheses which, then, on the base of a worked-out stage model (cf. Tab. 2) could be studied in more detail by stimulated recall.

Admittedly, this procedure seems to be not very exactly compared with data produced by objective psychometric tests. But, on the other hand, it offers some valuable advantages:

- Objective tests mostly provide information on isolated single abilities or skills but they do not tell what this information means as part of an interesting competence (which includes several abilities and skills).
- Self-reports stimulated by research questions do not refer to preconscious or unconscious but to conscious entities on which a questioned person can give valid information.
- The measuring procedure outlined above is strictly process-oriented thus following the actual trend in research on teaching which has been developed after the failure of the traditional process-product research strategy (cf. Seidel/Shavelson 2007).
- The introduction of two sub-stages of competence directs the attention to the interaction and concurrence of single abilities and skills in forming a competence which develops step by step from trials to combine isolated elements (sub-stage “capability”) to experienced practice. This is not a *holistic* view in the narrow sense of this word but a comparatively comprehensive perspective which brings the relevant facets of (teaching) behaviour to attention.
- The stage/sub-stage approach outlined above seems to fit nicely in the modelling of teaching standards which has been developed and is at present studied by Fritz Oser and his co-workers (cf. recently Oser/Heinzer 2009). It allows for studying their film vignettes by introducing two important stages of development of their 45 standards. In applying their advocatory approach of competence measurement in a first step test subjects could be asked which attributes they are likely to watch or, after having seen a vignette without being given an observation task, which attributes they have perceived and watched. The answers reveal nothing else than the “focal object(s)” of a test subject thus indicating the developmental stage which this person has reached so far. Furthermore, in the same way the protagonists in the vignettes could be measured in advance with respect to the stage and sub-stage they are acting on. This information might be helpful if vignettes are used not for diagnostic but for intervention purposes.

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<sup>23</sup> The intuition of an external observer is, of course, not reliable enough for a safe diagnose. This was one of the reasons why third persons have been excluded from the definition of “sovereignty” (cf. Chap. 3.1).

## Conclusion

The research on competences and their developmental paths is still in its infancy. Though we meet with very many “competence models” (unfortunately often depicted by colloquially named rectangles and non-named arrows) the complex internal logics of a working competence seems to be not yet understood in its decisive details. Rather, the interaction and concurrence of internal cognitive and non-cognitive components of psychologically hypothesised “competences” even need to be modelled far more precisely than has been pointed out briefly by the distinction of two comprehensive sub-stages, i.e. “capability” and “sovereignty”.

After all, an answer to the question in the heading title of this paper might read as follows: Indeed, “sovereignty” together with “capability” as sub-stages of a structure-genetic developmental stage model offer something like an anchor in the current discourse on competences in so far as these notions can help to dock circulating competence models with a theoretically consistent and practically relevant approach urging to focus on (a) the developmental aspects of competences and (b) on *processes* of acting as well as allowing for (c) a mapping of practically relevant observable states of competence. On the other hand we still do not know how the many attributes interact which allow for competent behaviour on different levels and stages. In this regard the discourse on competence models finally remains to be wavy.

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