

## Towards a Balanced Account of Expertise

The interdisciplinary debate about the nature of expertise often conflates having expertise with either the individual possession of competences or a certain role ascription. In contrast to this, the paper attempts to demonstrate how different dimensions of expertise ascription are inextricably interwoven. As a result, a balanced account of expertise will be proposed that more accurately determines the closer relationship between the expert's dispositions, their manifestations, and the expert's function. This finally results in an advanced understanding of expertise that views someone as an expert only if she is undefeatedly disposed to fulfill a contextually salient service function adequately at the moment of assessment.

Keywords: social epistemology; expertise; dispositions; ascriptivism; reductionism; functional approach

“If someone loudly declares ‘I’m an expert’, then we can always reply ‘Only if we say you are.’” (Stichter 2015, 126)

### 1 Introduction

The notion of expertise<sup>1</sup> is notoriously unclear. Some scholars question the utility of taking a definitional approach to expertise (cf. Slatter 1991, 153), and others even claim this endeavor is “a sophomoric exercise almost guaranteed to stifle productive thought” (Bereiter and Scardamalia 1993, 4). In fact, it often seems that there “are almost as many definitions of ‘expert’ as there are researchers who study them” (Shanteau 1992, 255). I have argued elsewhere against this skepticism<sup>2</sup> and proposed a practical explication of expertise (cf. Quast 2018). In this paper, however, the more modest goal will be pursued to argue against a widespread tendency to conflate expertise with either the individual possession of relative competences or a certain role ascription. More precisely, the thesis will be put forward that an expert's role, competence, and the manifestation of expertise are mutually interdependent, so that none can be adequately reduced to the other. This balanced account of expertise is supposed to shed some light on how

the hitherto isolated debates in philosophy, psychology, and the social sciences largely neglect their deeper interrelation. The following discussion therefore strives to provide a more general account of expertise to inform scholars spanning expertise studies at large. It is, however, not implied here that these disciplinary discussions and stipulative definitions are necessarily misguided but that they often fail to recognize the larger picture to which they themselves contribute.

To develop this account, it is crucial to first distinguish three different dimensions of expertise ascription (in Sect. 2) before introducing two different reductionisms of expertise (in Sect. 3) and rejecting them thereafter (in Sect. 4-5). This paves the way for a more balanced understanding of expertise (in Sect. 6) and shifts the burden of proof to the reductionist.

## **2 Three Dimensions of Expertise**

Expertise ascriptions are often used to refer to at least one of three different dimensions.<sup>3</sup> In ordinary and scientific language, the notion is primarily used to indicate the individual possession of relative or extraordinary *competences*, whether these are spelled out in terms of practical abilities (powers, capacities, virtues, etc.) or epistemic properties, like having true beliefs, knowledge, justification, understanding, or a combination thereof (cf. Quast 2018, 13). The following passage is exemplary for this:

- (1) “To be a financial consultant requires a combination of different competences: expertise in accounting, auditing and reporting must be coupled with valuation and corporate finance know-how and an in-depth understanding of tax law.”<sup>4</sup>

This is an overt identification of expertise with the possession of individual competences. Correspondingly, expertise equals being suitably skilled in relevant matters. Or, as Harry M. Collins and Robert Evans (2007, 2) express this point, experts are people who “know what they are

talking about.” This dimension of expertise ascription is designated the *dispositional-sense*<sup>5</sup> of expertise (or Expertise<sub>D</sub>, for short):

(EXPERTISE<sub>D</sub>) In one sense of the term, “expert” or “expertise” applies to someone who is suitably disposed to succeed in matters of a restricted domain of (intellectual and/or practical) activities.

Although the dispositional-sense is often dominant in the conception of expertise, the expert’s nature should not be reduced to the possession of relative or even extraordinary competences.

There is instead another dimension of expertise ascription to be stressed that refers to the *results* of expert dispositions in contrast to their *possession*, i.e., to an expert’s achievements. In this vein, we often talk about something as an expertise in the sense of its being a manifestation of expert dispositions. This dimension of expertise ascription is expressed in the following sentence:

(2) “The German Federal Ministry of Transport has commissioned an expertise that is to examine the possible effects of climate change on conditions for inland shipping on the Rhine.”

What is reflected here is that “expertise” can also be used to make reference to proper manifestations of expert dispositions, that is, to agential achievements that are competently caused, not just caused by competence.<sup>6</sup> Correspondingly, a second dimension of expertise ascription needs to be highlighted, the *manifestation-sense* of expertise or Expertise<sub>M</sub>:

(EXPERTISE<sub>M</sub>) In another sense of the term, “expertise” applies to something which is competently caused, i.e., manifests expert dispositions.<sup>7</sup>

Both dimensions of meaning can also be found in recent dictionaries. The *Oxford English Dictionary* provides two definitions for the noun “expertise”: it is the “quality or state of being expert,” which corresponds to expertise ascriptions in the first sense (i.e., their Expertise<sub>D</sub>), or

an “expert’s appraisal, valuation, or report,” which corresponds to the manifestation-sense of expertise (i.e., Expertise<sub>M</sub>). Furthermore, the noun “expert” refers to persons who “gained skill from experience,” possess “special knowledge or skill,” and are thus “regarded as an authority,” whereas the adjective “expert” refers to being “trained by experience” or “skilled,” that is to “personal qualities or acquirements.”<sup>8</sup> Thus, “expertise” can apparently be used to at least refer to the individual possession of a special disposition or to the manifestation of that disposition.

But there is much more to say about the notion of expertise. More particularly, I want to stress that over and above these two dimensions of expertise is yet another that has been either completely neglected or bluntly overstated in the pertinent literature. This third dimension of expertise ascription can be properly identified by taking into account its characterizations in the social sciences, where it is often understood as an *ascriptive* rather than a *descriptive* property. Ben L. Martin (1973, 159), for instance, explicitly states that “[e]xpertness is an ascribed quality, a badge, which cannot be manufactured and affected by an expert himself, but rather can only be received from another, a client.” If this is correct, the existence of expertise is constitutively ascriptive and so logically depends on its prior ascription. The minimum criterion of expertise advocated by Neil M. Agnew et al. (1997, 2) can also be understood in this vein:

“to have at least one reasonably large group of people [...] who consider that you are an expert; in this sense, expertise is socially selected. [...] ‘Expert’ is a role that some are selected to play on the basis of all sorts of criteria, epistemic and otherwise.”

Being an expert thus would not only be constitutively ascriptive but also a social phenomenon presupposing the ascription of a certain role. Ideas exemplary of this can also be found in the works of Reiner Grundmann (2017, 26), E. Johanna Hartelius (2011, 1), and Harald A. Mieg (2001, 43). In the words of Mieg, “[A]n expert has to be regarded as the connection between a *person* [i.e., the expert’s dispositions] and a *function* [i.e., the expert’s role]” (Mieg 2006, 743).

Thus, there seems to be another usage of expertise that refers to the ascriptive role of fulfilling a certain function.

Nevertheless, one need not rely on the accuracy of such characterizations, since ordinary language already gives some indication of the ascriptive dimension of *expertise*. For one thing, we notoriously talk about the *ascription* of expertise in contrast to natural properties like being water or being a tiger. But, more importantly, we often use the notion of expertise to refer to a social role or function a person is set to play within a given framework. One example would be the biographical usages often found in *curricula vitae*:

- (3) “Geneva was my next stop, where I worked for four years as an expert for gender equality in two major United Nations organizations.”

But what can be the point of working as an expert for a certain period of time? To make sense of this time restriction, it seems plausible to assume that being an expert or having expertise should not be exclusively understood in terms of possessing suitable competences or dispositions, that is, in line with  $\text{EXPERTISE}_D$ , since it would be odd to ascribe these dispositions only for a restricted period of time. Wouldn't it be much more plausible to assume that this person was suitably disposed before she signed her contract at the United Nations and still is after her dismissal?

An alternative reading of these *episodic* usages of “expertise” is therefore needed. Such a reading was already introduced in the idea of expertise based on role ascriptions. Against this background, I want to propose that episodic manners of usage stress that a person is set to play a certain role within a given context and is thus employed to do something for which she is usually assumed to be suitably disposed. As a result of this and the foregoing characterizations, a third dimension of expertise ascription can be identified. I will refer to this dimension as the *functional*-sense of expertise or  $\text{Expertise}_F$ :

(EXPERTISE<sub>F</sub>) In a third sense of the term, “expert” or “expertise” applies to someone who is set to play a special service role in a restricted domain of (intellectual and/or practical) activities.

To briefly summarize the foregoing deliberations, “expertise” can be used to refer to experts’ competences or dispositions, to their achievements or manifestations, and to their role or function (that is, to the phenomena of *Expertise<sub>D</sub>*, *Expertise<sub>M</sub>*, or *Expertise<sub>F</sub>*, for short).

Concerning the phenomenon of *Expertise<sub>F</sub>*, consider how some expertise ascriptions even seem compatible with an overt lack of relevant dispositions. Candidates for such usages of “expertise” are the following:

- (4) “None of the invited experts was relevantly competent on the matter at hand.”
- (5) “Oh, that’s not a pity that Mehmet Scholl<sup>9</sup> was let go by ARD. The Sports Department at the television company will certainly be able to find the next B-list expert without competence in no time.”

In light of the mentioned fact that expertise is most usually understood as, and often even identified with, expert competences, the above usages of “expert” require further explanation. Fortunately, they can be simply explained by introducing an important distinction within the notion of expertise (cf. Goldman 2001, 91; Scholz 2009, 190): the distinction between objective and intersubjective usage of “expertise.” Simply put, someone is an *objective* expert if she is suitably disposed to fulfill a contextually salient function adequately, whereas she is an *intersubjective* expert if this function is groundedly ascribed to her (cf. Quast 2018, 19).<sup>10</sup>

We are now equipped to explore the meaning of the above sentences. To make sense of them, it is best to understand both expertise ascriptions non-objectively. It is now possible to

have expertise without being suitably competent. However, the proper understanding of intersubjective expertise is controversial. Therefore, two different approaches to intersubjective expertise can be stressed.

According to a dispositional or competence-driven approach to intersubjective expertise, someone  $e$  is an intersubjective expert as compared to contrast class  $c$  within a certain domain  $d$ , iff  $e$  is mistakenly assumed to be suitably disposed in  $d$  in comparison to  $c$ . This is intersubjective expertise in light of expert dispositions and can be designated as an *error theory* of intersubjective expertise (cf. EXPERTISE<sub>D</sub>). But this is not the only way to understand intersubjective expertise. In comparison, it can also be conceived in light of an expert's role or function (cf. EXPERTISE<sub>F</sub>), namely, someone  $e$  is an intersubjective expert, iff  $e$  is groundedly ascribed to fulfill a certain role or function for  $c$  within  $d$ . This can be designated as a *functionalist approach* to intersubjective expertise. It states that intersubjective expertise ascriptions are either faulty ascriptions of objective expertise or grounded ascriptions of the expert's role or function, probably based on prior signs of aptitude.<sup>11</sup>

Interestingly, both approaches are compatible with sentences (4) and (5), while an error theory is much less intuitive in case of episodic usages (cf. [3]). It is not only for this reason that the following investigation strives to look into new evidence for the superiority of a functionalist account of intersubjective and objective expertise (in Sect. 5.3). As a matter of fact, a functional approach to expertise neatly fits a more recent development within expertise studies in which expertise is not simply understood in terms of ordinary competences. In this vein, Alvin I. Goldman (2018, 4) recently proposed that expertise needs to be understood as the “capacity to help others (especially laypersons) solve a variety of problems in D or execute an assortment of tasks in D which the latter would not be able to solve or execute on their own”; Jennifer Lackey (2017) characterizes “experts-as-*advisers*”; and Reiner Grundmann (2017, 45)

considers experts *mediators* “between knowledge production and application.” These and similar approaches can be considered specific expressions of what I have elsewhere called the conceptual function of expertise (cf. Quast 2018, 18):<sup>12</sup>

(CONCEPTUAL FUNCTION) The conceptual function<sup>13</sup> (point, role) of expertise is to substantially improve the social deployment of available agential dispositions to bring about cliental ends accurately.

Whether the expert’s role is *helping*, *advising*, or *mediating* knowledge production and application, this ultimately amounts to the more general need of every human being to improve scarce agential resources for achieving specific ends. This can be traced back to the most fundamental coordination problem faced by restricted<sup>14</sup> human agents, that is, the individual expenditure and social extension of scarce agential resources.<sup>15</sup> For the current purposes, however, it seems best to simplify these complexions by characterizing expertise in light of CONCEPTUAL FUNCTION as a *service* relation between an agent and her clients (or simply *Expertise<sub>F</sub>*).<sup>16</sup>

### 3 Reductionism and Anti-Reductionism of Expertise

I introduced three dimensions of expertise ascription in the previous section: the reference to an expert’s competences or dispositions (i.e., *Expertise<sub>D</sub>*), the manifestations of such competences (i.e., *Expertise<sub>M</sub>*), and the expert’s role or function (i.e., *Expertise<sub>F</sub>*).<sup>17</sup> It turned out that manifestations of expertise result from the expert’s application of dispositions, which means the dispositions are more fundamental than the manifestations. This leaves us with the difficult matter of determining whether the expert’s dispositions or function are more fundamental. Advocates of competence-driven accounts like Goldman (2001; 2018) will argue for the former, whereas adherents to functionalist accounts could argue for the latter.<sup>18</sup>



Goldman, on the one hand, argues that intersubjective expertise, what he calls “reputational expertise,” is *parasitic* on objective expertise, which is based on an expert’s dispositions preferably spelled out in terms of the possession of a sizable amount of true beliefs. The basic idea is that once “the objective sense is specified, the reputational sense readily follows” (Goldman 2001, 91). In other words, a reputational expert is someone who is widely taken to be an objective expert independently of whether or not she really is one. On the other hand, Agnew et al. (1997, 2) call for a minimum criterion of expertise that is “to have at least one reasonably large group of people [...] who consider that you are an expert.” From this perspective, it seems that an ascriptive dimension of expertise is more fundamental:

“[W]e think of experts less in terms of their possessing some particular rare cognitive competency, or a greater quantity of ‘true’ knowledge than their colleagues, than as having been selected by a constituency willing to attribute expertise to them.” (Agnew, Ford, and Hayes 1997, 2)

This selection often goes hand in hand with the ascription of a role or function to an expert. But these are intricate matters to which we will come back in more detail later on (in Sect. 6). I have argued elsewhere that it could be productive to assume at least a *methodological* priority to the functional dimension of expertise (cf. Quast 2018, 16, 21). But this does not imply that either dimension is *conceptually* more fundamental. For reasons which will be addressed later, it even seems more tenable to defend a balanced account of expertise (in Sect. 6) comprising symmetric treatments of the dimensions introduced above.

The issue of priority can also be framed more rigorously in terms of *epistemic* reduction. The basic idea is that one dimension of expertise ascription can be exclusively *explained* by means of another.<sup>19</sup> Against the backdrop of the three dimensions of expertise ascriptions, three approaches to *expertise* are worth investigating now: reducing expertise to the role or function of experts (or reductionism<sub>F</sub>); reducing the expert to a sizable amount of individual dispositions

(or reductionism<sub>D</sub>); and giving a balanced account of expertise encompassing all three of the dimensions introduced above (or anti-reductionism).<sup>20</sup> These approaches will be introduced and discussed consecutively in the following.

#### **4 Against Reductionism<sub>F</sub>**

Although an epistemic reduction of expertise to its role or function has been barely discussed by scholars explicitly, its underlying idea is straightforward. Under this account, an expert is simply “someone who is called an expert [...] because of the way [...] [she] fit[s] into social life” (Collins 2014, 49). Or to put it differently, the main idea of such an approach is that *expertise* denotes a role rather than an individual possession of anything (cf. Mieg 2001, 47). In this vein, expertise is thought to be a “role that some are selected to play on the basis of all sorts of criteria, epistemic and otherwise” (Agnew, Ford, and Hayes 1997, 2), and is considered “an ascribed quality, a badge, which cannot be manufactured and affected by an expert himself, but rather can only be received from another, a client” (Martin 1973, 159). Thus, according to reductionism<sub>F</sub>, expertise is an ascribed property or status that is socially conferred primarily based on a given role assignment. And since, in that case, expertise results from the ascription of a certain role, the individual dispositions for being an expert directly reflect the requirements for the fulfillment of the corresponding function. The bottom line of all this is that the widespread requirement for expert competences can be fully explained in terms of an expert’s function. An example might help to illuminate this:

(TRANSLATION EXPERT) Imagine that Kobe is a recognized expert for translations from Swahili into English based on several pertinent role ascriptions. And imagine that his track record is unquestionable, since he always delivers brilliant translations that reinforce his expertise. But he secretly commissions the translations to other translators because he is not able to do them himself and thus the works cannot be

properly credited to him. His contribution is to merely delegate these translations to unknown freelancers and sell their achievements as his own.

Is Kobe an objective expert for translating Swahili into English? I assume that most will strongly deny this. But if reductionism<sub>F</sub> is presupposed, Kobe would be considered a proper expert since the underlying idea of this approach is that expertise is simply conferred by the ascription of a role that a person is set to play “on the basis of all sorts of criteria, epistemic and otherwise” (Agnew, Ford, and Hayes 1997, 2). Furthermore, Kobe would have to be considered a proper expert even if everyone knew about his real contribution. If being an objective expert requires not only the *ascription* but also the *fulfillment* of the social role of delivering something on demand, then TRANSLATION EXPERT gives no reason to refuse this status. Kobe’s competence – his having and managing a translation network – obviously fits his given function, so that he reliably delivers the service.

To be sure, an advocate of reductionism<sub>F</sub> may readily reply that Kobe’s capacities need not be purely translational, but can also comprise the access and use of otherwise functional means such as a translation network. A comparable view can be found in Hartelius (2011, 9), at least at first sight:

“[E]xperts use both their ‘real’ knowledge and experience in a specific field *and* their rhetorical prowess to persuade an audience. Reliance on substantive material ‘evidence’ does not make expertise any less rhetorical. Conversely, employing rhetorical tactics does not make an expert less [... knowledgeable] or the expertise less substantive. Effective rhetors rely on multiple means; the more they have at their disposal, the more likely they are to be viewed as experts.”

However, granting this point neither confirms Kobe’s translation expertise nor does it defend the reductionism in question. Because Hartelius combines the requirement for *primary* (“‘real’ knowledge”) and *secondary* (“rhetorical prowess”) competences,<sup>21</sup> her idea does not reflect

reductionism<sub>F</sub>, which considers someone an expert of a certain domain iff she has been assigned to fulfill a social role and has the prerequisites to do so, regardless of their grounding. For, as Hartelius states explicitly, both kinds of individual competences are required.

No matter how you look at it, the account under scrutiny is proving to be questionable when faced with TRANSLATION EXPERT; this impression is reinforced by dictionaries, where “expert” is usually characterized as someone “whose special knowledge or skill causes him to be regarded as an authority [on primary matters].”<sup>22</sup> Exactly this is also the point of the following statement by Robert P. Crease and Evan Selinger:

“The most commonsense approach to expertise is via the idea that experts possess a special kind of knowledge and skill [in primary matters] that nonexperts do not have but need for ordinary and extraordinary activities.” (Crease and Selinger 2005, 734)

If this is an accurate characterization of the commonsense meaning of *expertise* and if it is also plausible to assume that explications of ordinary language terms need to start with an established core meaning of the explicandum term, at least if there is no good reason to deviate from it, then reductionism<sub>F</sub> is a highly ill-motivated account of objective expertise, for it does not even require primary competences on behalf of the expert. Against this backdrop, it seems *prima facie* much more promising to give antithetical reductionism<sub>D</sub> a try, i.e., the idea that the possession of expertise can be reduced to the possession of a suitable amount of dispositions.

## **5 Against Reductionism<sub>D</sub>**

Many scholars only concentrate on the dispositional-sense of expertise and, accordingly, defend a narrow competence-driven approach. Lacking proper awareness of the other dimensions of expertise ascription, particularly philosophers and psychologists are often attracted to reductionist views according to which the role or function of experts can be fully explained in light

of the possession of suitable dispositions. This might not be a big surprise since it neatly fits the commonsense approach to expertise sketched above. In addition, the etymological roots of “expertise” provide some reason to downplay the other dimensions as well. According to Raymond Williams (1985), for example, “expert” derives from the Latin “*expertus*,” which is the past participle of “*experiri*” – to try. Thus, someone was originally considered to be an expert who became skilled or knowledgeable through experience.

Among the adherents of such competence-driven accounts are many philosophers<sup>23</sup> and psychologists,<sup>24</sup> as well as a couple of social scientists,<sup>25</sup> interestingly. Despite considerable differences within their precise understandings of expertise, these scholars broadly share two basic assumptions. The *first* is the reductionist’s core claim that expertise is the individual<sup>26</sup> possession of a sizeable amount of intellectual or practical dispositions and can be understood in terms of relative reliability. The *second* claim, in turn, which is often not explicitly stated, is supplemental to the first and rejects a functional nature of expertise. Accordingly, reductionism<sub>D</sub> can be understood along the following lines:

(PRIMARY CLAIM) Expertise is just *Expertise<sub>D</sub>*, i.e., the possession of suitable dispositions.

(SECONDARY CLAIM) *Expertise<sub>F</sub>* is just circumstantial to *Expertise<sub>D</sub>*, i.e., the expert’s role is negligible for a proper understanding of general expertise.

This position neatly fits the current naturalist tendencies in epistemology, which can be considered to motivate reductionism<sub>D</sub> as well (cf. Rysiew 2017).

However, this is not the claim to be tackled here. Rather, I will argue that the reduction of expertise to the possession of ordinary dispositions is misguided. For one thing, this view not only ignores the *linguistic* and *semantic* difference in using “expertise” (see Sect. 5.1), but also the *deontic* differences related to both properties (see Sect. 5.2). There also seems to be good

evidence for a profound difference between having expertise, on the one hand, and being suitably disposed, on the other, which counters the reductionist's primary claim. In a first approximation, competence will be displayed as underlying an *instrumental* functionality, while expertise ascriptions are subject to a *social* service role explained by CONCEPTUAL FUNCTION.

I argue subsequently for a closer connection of both properties. I will defend a concept of *expertise*, more precisely, which is supported by a functional understanding of *competences* (in Sect. 5.3) while remaining different from the concept of competence nevertheless. As a result, the close relation of both properties is illuminated, though they are not identical.<sup>27</sup> If the foregoing is approximately correct, then it counters the reductionist's secondary claim and is another reason why reductionism<sub>D</sub> is unable to provide a proper basis for understanding expertise.

### **5.1 Linguistic and Semantic Arguments against Reductionism<sub>D</sub>**

The *first* objection refers to a couple of linguistic and semantic facts. It can simply be asked: Why do we employ predicates like "having expertise" alongside "being a competent agent" if both are allegedly fully synonymous? This is not a trivial question given the fact that we usually apply an economy of speech that renders full synonymy a relatively scarce phenomenon:

"[H]uman cognitive processes [...] are geared to achieving the greatest possible effect for the smallest possible processing effort." (Sperber and Wilson 1995, p. vii)

This is why claims of full synonymy always require special justification. Granted, this argument by itself is still very weak. Therefore, further evidence needs to be considered. It can be stressed, for example, that there is much talk about experts' *roles* and *functions*, while nothing comparable can be said in the case of competent agents. To illustrate this point, notice that it is fully proper to claim:

(6) "Kobe functions in the role of or as an expert."

Whereas it seems odd or at least pointless to claim that:

(7) “Kobe functions in the role of or as a competent agent.”

However, if “being an expert” and “being a competent agent” were fully synonymous, both predicates should be interchangeable. But since the latter predicate obviously does not point to any such role as the former does, there is linguistic evidence to assume a conceptual difference between experts and competent agents.

Furthermore, the question can be raised why *expertise* is usually thought to be *contrastive*, which requires relative or even extraordinary competences on behalf of the expert. The most common way of highlighting this very point consists in claiming that experts need to be more competent than some contextually relevant contrast class. Thus, the required contrast breaks down into a *social* contrast. With a few exceptions, this point is generally agreed upon.<sup>28</sup> Accordingly, expertise is a property that can get lost when there are changes in the social environment, to wit, changes in the contextually relevant contrast class. For example, most fluent German speakers are experts of the German language during their holidays in France,<sup>29</sup> although this expertise ascription becomes pointless or masked as soon as another contrast class becomes more salient in a different social environment (back home, for instance). This differs from cases of ordinary competences, the ascription of which is usually thought to be more stable, although obviously not completely independent of contextual factors. It therefore seems valid to argue that expertise always depends on a social contrast, while competence relevantly differs in this respect. This explains why expertise is often masked under equals but competence remains salient.<sup>30</sup> We will return to this differentiation in due course (see Sect. 5.3).

For the moment, keep in mind that this difference between expertise and competence in entailing social contrasts gives rise to another important difference regarding the reasonableness of phrases like “ubiquitous expertise”<sup>31</sup> and “ubiquitous competences.” Briefly stated, this differentiation admits the ascription of ubiquitous competences, or the competences that virtually every member of a society is thought to possess (cf. Collins and Evans 2007, 13), while the

ascription of ubiquitous expertise presents itself as an oxymoron. Ascribing expertise presupposes a contextually salient social contrast class, whereas claiming an expertise to be ubiquitous denies this very presupposition. Therefore, calling expertise ubiquitous is self-contradictory and thus closely resembles the idea of an unconscious toothache (cf. Addis 2013, 328).

We are now prepared to look at some further linguistic evidence for distinguishing the ascription of expertise and competences. What is concerned here is the fact that “being an expert” and “being a layperson”<sup>32</sup> are treated as a contrastive pair of phrases (cf. Germain and Enrique Ruiz 2009, 624), that is, the meaning of the former partly depends on the meaning of the latter, and vice versa. Accordingly, we cannot fully grasp what it takes to be an expert if we have no awareness of plausible contrast classes. However, “being competent” is relevantly different in this respect. While there is a semantic contrast to laypersons in cases of expertise ascriptions, this differs in cases of competence ascription. More precisely, the claim is that expertise demands a social contrast to laypersons, a fact which is manifested on the surface of ordinary language, whereas such a contrast is much less important in cases of competence ascription.<sup>33</sup> This is a salient difference that advocates of reductionism<sub>D</sub> need to explain (away).

In light of the semantic and linguistic evidence investigated so far, though, this would probably be poor advice. For we have already noted that expertise ascriptions (1) are closely associated with the assignment of roles or functions, (2) presuppose a social contrast to some contextually salient contrast class, and (3) are often accompanied by contrastive phrases like “being a layperson.” It thus seems *prima facie* more reasonable to argue for a notion of expertise that incorporates this evidence rather than explaining it away. In this vein, it appears plausible to argue that phrases like “being an expert” and “being a layperson” (or “being a client,” respectively) often appear within the same context, because the ascription of expertise calls for a social contrast, at least implicitly.<sup>34</sup> This, in turn, arises from the fact that *expertise* designates a social role the function of which was assumed to be a special service relationship. As we have also



seen, nothing comparable is plausible for the ascription of competences. Therefore, reductionism<sub>D</sub> appears to be at least semantically and linguistically questionable. But there is still further evidence against the identification of expertise with the possession of ordinary competences or dispositions, which will be addressed below.

## 5.2 *The Deontic Dimension of Expertise Ascriptions*

My basic argument will be that the ascription of expertise, in contrast to competence, comprises a *deontic*<sup>35</sup> dimension that results in the following: Once expertise is properly ascribed, having expertise can be lost despite remaining highly competent. If this proves to be correct, there is striking evidence against reductionism<sub>D</sub>.

A couple of deontic requirements for being an expert have already been identified. John Hardwig (1994, 92 f., my italics), for instance, lists a series of maxims for experts and “guidelines for *responsible* professional behavior.” Grundmann (2017, 26), on the other hand, mentions that sometimes “experts are thought to have *moral* virtue, besides technical competence,” and Wagemans (2011, 330) alludes to what he takes to be a well-established tradition of defining *expert* as someone who is “*epistemically responsible* for a particular domain” (see also Germain and Enrique Ruiz 2009, 626). It is in this vein that I have claimed expertise to be partly a normative status comprising several aspects of responsibility (cf. Quast 2018, 18). In what follows, I will concentrate on only one of these aspects: the accountability of experts.

Not only are experts sometimes held accountable for their performances but also competent agents more generally. This is at least the opinion of Michael Williams after reflecting on the default and query structure of (epistemic) competence ascriptions.<sup>36</sup> According to Williams, an agent can only be competent and thus accountable for her performances if she features some basic self-understanding. That is, she must have some understanding of the reliability and limitation of her competences and how their manifestations could possibly go wrong (see also

Hardwig 1994, 92 ff.). This need not be fully conscious, but “may be mostly exhibited in practice rather than explicitly ‘thematized’” (M. Williams 2015, 265). These are default-conditions for ascribing competence. However, as soon as these performances are put into question, the agent must be disposed to give an account of them, whether these queries are challenges or of more explanatory kind (cf. M. Williams 2015, 263). If the agent is unable or unwilling to produce good explanatory or justificatory reasons to contextually appropriate queries, a formerly impeccable ascription of competences can be defeated. This, by implication, means that a competence ascription obliges the agent to elucidate her performances when appropriate in order to retain her competence and responsibility. In other words, what Williams proposes is a dynamic two-stage model of ascribing competence and responsibility with modest default-conditions in contrast to more demanding conditions once contextually appropriate queries arise.

Although this might be a plausible account of epistemic agency and knowledge-ascription in particular (see fn. 36), it appears to be too demanding for competence ascription in general. Competences are most plausibly understood in terms of instrumental reliability, that is as achieving a given aim within the current context often enough (see Sect. 5.3). According to Williams, however, instrumental reliability at best leads to a *default*-ascription of competences. As mentioned, though, this can be defeated once the agent does not properly react to contextually appropriate *queries*. However, on closer inspection, this model seems to be far too restrictive. To illustrate this claim, consider that the vast majority of competence ascriptions do have more relaxed conditions. Imagine, for example, the following case:

(WINE ENTHUSIAST) A highly skilled wine enthusiast can not only reliably identify left and right bank Bordeaux wines, but also reliably identifies producers, blends, vintages, and even terroir in blind tastings. Her outstanding capabilities are proven and have been widely known for decades now. Further imagine that this person on

some occasion reliably masters another test that was designed to lead her competences astray. Facing this unexpected result, the tester raises a couple of contextually appropriate “How do you know?”-questions, which the wine enthusiast is unable or unwilling to answer.

According to Williams’ account, this is good reason to consider the competence ascription to be defeated. But this is obviously too demanding.<sup>37</sup> To recognize this, the following three distinct aspects must be differentiated:

- (i) The refined palate of the wine enthusiast, that is, her gustatory or *primary* competences,
- (ii) the ability to give an account of her performances, i.e., her explanatory or *secondary* competences, and
- (iii) the *willingness* to manifest both competences when appropriate, that is, her intellectually virtuous character (cf. Hardwig 1994, 92 f.).

This three-part divide is closely related to two kinds of misconduct: competence and expertise ascriptions could be questioned due to incompetence or a lack of respective manifestations (as a result of missing virtuousness).

When speaking of ordinary *competence*, only primary incompetence seems to be relevant. Under normal circumstances the possession of these competences is not tied to the possession or willingness to execute secondary competence. In other words, it is just claimed that ordinary competence is appropriately conceived in terms of instrumental reliability, which justifies its separation from any further deontic requirement. This is no surprise considering the difference between competences conceived in terms of instrumental reliability and expertise conceived in social terms.

When speaking of objective *expertise*, however, there is good reason to call for a combined condition comprising all three aspects introduced above. In cases of primary or secondary incompetence, an ascription of expertise can be considered *flawed* or it can be *defeated* in cases of vicious character. This is because expertise can be understood as the disposition to *serve* (or *Expertise<sub>D-F</sub>*, hereafter), the underlying point of which is to coordinate and improve the social expenditure of scarce agential resources. At this juncture, it becomes more and more apparent that the dispositional and functional dimensions of expertise ascription, which were originally introduced as separate matters, are conceptually interwoven.<sup>38</sup>

To establish this service requires reliability on behalf of the expert and trust on behalf of the client, because without either of these ingredients cooperation will probably not ensue for longer periods. Thus, dispositions to serve not only presuppose *primary* competence, which ensures the reliable attainment of relevant manifestations, but also *secondary* explanatory competence, the function of which is to establish and retain mutual trust between experts and clients. To be sure, in order to establish and sustain mutual trust, experts also need to be appropriately *virtuous*, that is, must be disposed to properly estimate and communicate the scope and limitations of their competences and be willing to give an account of their performances when appropriate, etc.<sup>39</sup> So, when it happens that an expert refuses to serve in primary or secondary matters, it often becomes more and more difficult to sustain an originally sound default-ascription of expertise. For sure, a one-off misconduct usually needs to be very grave to instantly defeat such a default-ascription, but this can also happen when minor misdemeanors are repeated. This is how the deontic dimension of expertise becomes more and more evident.

It is against this backdrop that a default and query structure seems to be a proper requirement for expertise in contrast to competence ascription. To illustrate this point, imagine another case:

(WINE EXPERT) With mixed feelings you decide to contact a wine expert to estimate the value of a wine cellar that you recently inherited from your deceased grandfather. Because your grandfather told you on his death bed that there were some very expensive and extremely rare bottles in the collection, you feel incapable of estimating their value not only because of the less-than-ideal storage quality in your grandfather's cellar. Accordingly, you decide to hire a wine expert to estimate the value of the collection. Moreover, assume that the wine expert not only offers to buy the entire cellar for a price well below your honest expectations, but also that your grandfather hallucinated about several things during his last days. Unbeknownst to you, the wine expert's offer perfectly reflects the collection's current value. But due to your understandable confusion, you decide to ask the wine expert for an explanation, which he is unable or unwilling to provide in this case.

Now, if expertise ascriptions do indeed underlie a dynamic default and query structure, then the above expertise ascription might be defeated. This is claiming that whoever does not deliver the required goods runs the risk of losing their expert status sooner or later. As I take it, this in fact often happens and is reflected in the common critical and distancing use of *expertise* in phrases like "so-called experts" or "wannabe experts." That is, absent special reasons, we can retract tentative expertise ascriptions if the expert herself is *unable* or *unwilling* to give an account of her services when appropriate. A default-ascription of objective expertise is flawed in the former case and defeated in the latter.

To that effect, the proposed two-stage model of expertise ascription can be sketched in the following way: To be an objective expert initially requires the fulfillment of two conditions, that is, the reasoned ascription of a service function, as well as the possession of suitable dispositions for its adequate fulfillment. This not only implies dispositions to serve, i.e., primary and secondary competences, but also a corresponding willingness to serve under appropriate

circumstances. Thus, an agent is an objective default-expert if she is suitably disposed to fulfill a particular service function adequately at the moment of reasonable *ascription*. Accordingly, agents like the wine expert above can be thought of as objective default-experts due to their specific service function (or *Expertise<sub>F</sub>*) and corresponding dispositions (i.e., *Expertise<sub>D</sub>*).

However, even if these conditions are met, there are grounds on which the sustainability of these expertise ascriptions can still be put into question (cf. Hart 1948). This can be the case if the default-expert refuses to serve in primary ways, does not properly disclose her competence restrictions, or does not account for her performances when queried (cf. Quast 2018, 22), that is, if she neglects the duty to manifest her dispositions often enough (cf. *Expertise<sub>M</sub>*). Thus, a default ascription of objective expertise *can* be defeated if the expert is unwilling to fulfill her obligations, although she retains competence nevertheless.<sup>40</sup> More concisely, for an attribution of objective expertise to be sustainable, the agent needs to be *undefeatedly* disposed to fulfill a particular service function adequately at the moment of *assessment*. This is how all three dimensions of expertise ascription need to be integrated into a balanced account of expertise.

Since a default-ascription of objective expertise can be retracted for deontic reasons, it is now becoming clear why the ascription of default-expertise is tentative and can be defeated in cases of repeated or grave misconduct.<sup>41</sup> As a result, expertise ascriptions feature a dynamic structure. Even when expertise is properly ascribed, it can still be retracted for deontic reasons. It is for this reason that the manifestation-sense proves itself to be indispensable for a proper understating of expertise (i.e., *Expertise<sub>M</sub>*). And this is why a lack of expertise can be induced by these conditions, that is, can be based on a lack of expertise *ascription* (or *Expertise<sub>F</sub>*), suitable *dispositions* (or *Expertise<sub>D</sub>*), or relevant *behavior* (or *Expertise<sub>M</sub>*). To especially highlight this last-mentioned shortcoming was the primary aim of the current section and thus to argue that once the expert's dispositions fail to manifest properly, there is reason to retract a default-ascription of expertise. But if the structure of expertise ascription, in contrast to competence, is

dynamic, there should not be a simple identification of expertise with ordinary competence, which was introduced as the *primary* claim of reductionism<sub>D</sub> (in Sect. 5).

### 5.3 *The Functional Dimensions of Expertise and Competence Ascriptions*

My final objection questions the assumption introduced in the *secondary* claim of reductionism<sub>D</sub>. In short, this assumption asserts that the expert's function is a negligible dimension for a proper understanding of expertise. This stance is widespread, even in the social sciences. Exemplarily, this is demonstrated in Collins' dismissal of a "relational approach" to expertise, according to which someone is an expert just "because of the way [...] [she] fit[s] into social life" (Collins 2014, 49). In contrast, Collins and Evans (2007, 2) defend a "realist approach" to expertise according to which expertise "is the real and substantive possession" of people "who 'know what they are talking about.'" In their view, being an expert is just being highly competent. Or, to put it differently, an expert's role or function at best *follows* her competences or dispositions and is not conceptually *implied* in the ascription of expertise. This is clearly an instance of reductionism<sub>D</sub>.

Furthermore, I will argue that the widespread dismissal of the functional-sense of *expertise* in favor of the dispositional-sense is myopic since even ordinary competence ascriptions presuppose a functionalist reading, at least implicitly. More exactly, the thesis will be defended that expertise needs to be individuated by the ascription of a *service* function, while ordinary competence is individuated by the ascription of bare *instrumental* functions.<sup>42</sup> However, if this is correct, it will be hard to make sense of the widespread tendency to neglect the functional-sense of expertise ascription while also identifying experts with competent agents. Therefore, in what follows, the functionality of expertise and competence ascriptions will be compared.

How can expertise be individuated? I have already claimed that we cannot fully grasp the meaning of expertise ascriptions if we are not already aware of a contextually salient *contrast class* of laypersons or clients. I have also suggested that relevant contrast classes become salient

in the context of expertise ascription that is set by the attribution of a service function (this claim will be elucidated in more detail below). As a result, the expert's contrast class and thus the point of expertise cannot be understood without an awareness of the expert's role or function. Hence, the overall picture is approximately the following: In cases of expertise, a social function is ascribed that determines the contextual requirements and the contrast class in comparison to which someone counts as an expert. This is how the individuation of expertise and the ascription of a service function are closely entangled. For this reason, the individuation of expertise directly depends on an understanding of its underlying service function within the context of ascription. But there is further evidence for this dependence:

At first, the extent of the *subject area* of expertise can be plausibly determined by the contextual ascription of a service function. Then, the degree of required *reliability* for being an expert is also based on this function, as well as on the practical interests and stakes within the context of ascription. It is, moreover, on the same basis that the degree of *modal stability* of experts' performances can be set, these are the relevant alternative scenarios under which an expert is expected to succeed in order for a success to be fully creditable to her. And, finally, the required *scope and extent* of suitable dispositions of experts can be plausibly determined in proportion to such a function. This is why the endeavor for a more general threshold for attaining expertise is pointless.<sup>43</sup>

The determination of each of the above aspects leads to five distinct and serious philosophical problems that the reductionist of expertise to suitable dispositions or competences needs to answer:

- (i) The social contrast of expertise to different contrast classes is ultimately an issue of *relativity*, which is why an agent can be considered an expert for something in com-



parison to some contrast class but not for some other. Therefore, the question naturally arises why a particular contrast class is relevant for the ascription of expertise at all.

- (ii) The next issue pertains to the proper characterization of the subject area of expertise and can be considered a *generality* problem for characterizing the domain of expertise (cf. Scholz 2018, 32). This is the problem of identifying proper criteria for the restriction of an expert's domain. Without valid criteria for such a restriction, an agent can be considered an expert according to one characterization of the domain in question yet she can lack this very property in different characterizations.
- (iii) Another issue results from the shifting standards within different contexts, which can be considered a problem of *contextuality*. Against this backdrop, an agent is reliable enough to serve as an objective expert in one context and for some pertinent standards of ascription yet she is not able to serve as an expert in other contexts. But which context is relevant for the evaluation of an expertise ascription? Is it the context of *ascription* (or use), that is a specific situation in which the pertaining concept is ascribed, or is it the context of *assessment*, that is the situation in which the use of a sentence is evaluated (cf. MacFarlane 2014)? In both cases, expertise ascriptions are dependent on the individual standards of the ascribing or assessing subject.
- (iv) Moreover, a *localization* problem for expert dispositions can be identified which pertains to the specification of relevant nearby conditions under which an expert is expected to succeed. To put it another way, a criterion is necessary to distinguish between those possible courses of the world which are irrelevant from those which are relevant for the ascription of expertise. However, how could it finally be decided whether an expert's failure threatens her expert-status or not if such a criterion is not at our disposal (see Sect. 5.2.)?

- (v) The last issue to be addressed is the problem of fixing minimum conditions for being an expert, or the *threshold* problem for expertise (cf. Goldman 2001, 91). More exactly, this comes down to the question of how to specify non-comparative minimal conditions for being an expert. In other words, under which conditions does an agent fulfill the individual requirements of objective expertise and why are these requirements relevant at all?

Interestingly, the solution to these problems can be found in a function-based account of expertise, which is defended in this paper. An example might illustrate this claim:

(PRIVATE EXPERT) One morning my wife discovered that the kitchen drain was leaking. She asked me to take care of this problem shortly thereafter. Since we are both inexperienced in handicraft matters, I decided to hire someone to handle the matter. After describing the problem to my father-in-law, who is a passionate hobby-craftsperson, I left my wife a message that “our private expert is going to solve the problem tomorrow.”

By implicitly ascribing the function to repair our leaky drain pipe, the claim of my expertise attribution is limited to a certain contrast class, that is, to the class comprised of my wife and me. Moreover, the respective subject area is set in a similar kind of way. Accordingly, my father-in-law can be considered an expert for repairing or replacing leaky drain pipes or similar activities. In the same way, it can be argued that the characterization of his task also determines the contextually required degree of reliability, since to properly fulfill this service my father-in-law needs to satisfy my (i.e., the ascriber’s) standards for the repair or replacement of leaking drain pipes. If this is an urgent concern and something is at stake, the required degree of reliability will be much higher than if the service is marginal. This leads to the degree of modal stability of expert performances that is necessary for their success to be sufficiently creditable to the expert and to thus manifest expertise, that is, represent an expert’s achievement. Again,

it seems plausible that this depends on the practical interests and stakes at the moment of ascription. Thus, the more urgent the repair – say, the leaky drain pipe threatens to destroy very expensive hardwood flooring – the more capable the expert is required to be. Hence, the circumstances under which “our private expert” is expected to competently succeed can be functionally determined. The threshold problem of expertise can be similarly addressed. This means the scope and extent of expert dispositions for the repair or replacement of leaky drain pipes is determined by the service function for which one must be suitably disposed as well as by the current standards for expertise at the moment of assessment. Overall, this could require *profound* plumbing competencies, intellectual or practical, or a suitable amount of mere *relative* competence in contrast to the vast majority or another contrast class set by the context of expertise ascription.

It is important to consider that expert dispositions depend on social factors in at least two different ways: They are socially determined by the *service* the expert is asked to fulfill for a particular contextually salient contrast class. Moreover, the quality of being suitably disposed also reflects the standards of assessment induced by the present practical interests and stakes. Technically speaking, this can be framed within some sort of contextual indexicalism paired with the assessment sensitivity of expertise ascriptions (cf. Quast 2019).

But then how can competencies be individuated? As stated, it seems plausible to claim that one cannot fully grasp the point of competence ascriptions if she is not aware of their *instrumental* function in the first place. To recall, this simply means that a competence ascription can be understood by singling out its instrumental point, i.e., the point it was selected for doing. However, this functionality is highly implicit. Nevertheless, in most everyday contexts it is generally agreed upon who is considered competent and what is expected from those agents. In this vein, Ernest Sosa (2015, 28) refers to an “instrumentally determined common sense that humans live by” on the basis of which competences are individuated. Moreover, he claims that

our ordinary agreement on the individuation of competences and dispositions is more generally based on our ongoing practice of ascribing praise and blame, whether this pertains to the virtues of agents or to the dispositions of things like sharp knives for instance (cf. Sosa 2015, 28):

“As a special case of how to handle things and agents that manifest dispositions and competences, we have propriety of encouraging praise or approval, or discouraging blame or disapproval, which in turn helps to fix the relevant dispositions, abilities, and competences in ourselves and in our fellows.”(Sosa 2015, 28 f.)

To sum up, I have claimed that competences are individuated on the basis of their instrumental functions. Furthermore, Sosa states that we can keep track of or even fix these very functions by means of our evaluations, that is by our everyday practice of ascribing praise and blame. And, finally, it is stressed that the standards for being competent are dependent on contextual assumptions pertaining to the domain of performance, the precise function in question, the practical interests and stakes, etc.

Indeed, this understanding closely resembles the idea of expertise individuation suggested earlier. The crucial difference, however, is that a *service* function underlies these cases of expertise, while a purely *instrumental* function underlies cases of competence ascription. Accordingly, there are similar solutions to the philosophical problems introduced above: to recall, the *generality* problem for characterizing the domain of competence, the *contextuality* problem of shifting standards for competence ascriptions, the *localization* problem of specifying the conditions under which an agent is expected to succeed, and a *threshold* problem for being competent, that is, the problem of fixing minimum conditions for being reliable and skilled enough.<sup>44</sup>

First, the domain of competence can be determined by contextual assumptions about the instrumental point of competence ascriptions, which just claims that competences are always abilities to do something well enough. Likewise, the degree of reliability for being competent

plausibly depends on such a function. Thus, my seven-year-old son will often enough count as a competent free throw shooter on the schoolyard while playing basketball with his friends with a reliability of 0.35. But this rate is far too low for Dirk Nowitzki and any plausible NBA standard. Third, what goes for reliability also goes for modal stability. That is, the relevant alternative scenarios under which a competent agent is expected to succeed depend on the instrumental function at hand and some further contextual assumptions about relevant comparison classes, practical interests, and stakes. And, finally, the scope and extent of relevant competences for being a competent agent can be determined in proportion to this very function. A competent climatologist, for instance, is faced with higher demands in some contexts than in others. A representative of the IPCC explaining the most probable consequences of global warming to the UN General Assembly is expected to possess a higher quantity and quality of technical knowledge than if she is just reporting these consequences to her son's primary school class.

With that said, it can now be demonstrated how this can be taken into account to argue against the supplemental thesis of reductionism<sub>D</sub>, i.e., the claim that the expert's role is circumstantial to a proper understanding of expertise. If the foregoing provides us with an accurate account of competence and expertise individuation, it will be hard to make sense of the reductionist's supplemental thesis above (see Sect. 5). Because of this, the widespread reluctance to understand expertise from a functional point of view needs further argument or it will appear to be unfounded. For, as explained above, the ascription of competences already presupposes a functionalist leverage point, which is just getting a social twist in cases of expertise. And this twist, as seen, is semantically and linguistically well supported (see Sect. 5.1). Therefore, the take-home message of this paragraph is that ordinary competence is competence to *do*, while expert dispositions comprise competences to *serve*.

## 6 Anti-Reductionism: Towards a Balanced Account of Expertise

Discussed in the previous paragraphs were a series of objections against a position that was introduced as reductionism<sub>D</sub>. As a result, the identification of expertise with ordinary competences turned out to be misleading on *semantic, linguistic* (see Sect. 5.1), and *deontic* grounds (see Sect. 5.2), which put the reductionist's primary claim into question. More general doubts were also raised against a common reluctance to *individuate* expertise in the light of role-functional reflections (in Sect. 5.3), which calls into question the reductionist's secondary claim.

In the course of the argument, the former differentiation between a dispositional-sense and functional-sense of expertise ascription proved to be too simplistic (i.e., the sole differentiation between Expertise<sub>D</sub> and Expertise<sub>F</sub>). More precisely, it turned out that expertise is better understood in terms of dispositions to serve. But it is important to note that this does not give the proponent of reductionism<sub>D</sub> any substantial boost, since objective expertise could be equally understood as the *function* to serve on matters for which one is suitably disposed as opposed to *dispositions* to serve. By implication, someone has expert dispositions for a restricted domain of intellectual and/or practical activities only if:

(EXPERTISE<sub>F-D</sub>) she is set to fulfill a contextual service function adequately (i.e., *Expertise<sub>F</sub>*) that she is suitably disposed for (i.e., *Expertise<sub>D</sub>*),

or, alternatively, if:

(EXPERTISE<sub>D-F</sub>) she is suitably disposed (i.e. *Expertise<sub>D</sub>*) to adequately fulfill a contextual service function (i.e. *Expertise<sub>F</sub>*).

Hence, an expert's dispositions can be characterized by means of her role (i.e., as *Expertise<sub>D-F</sub>*) or, vice versa, an expert's role can be characterized by reference to her dispositions (i.e., as *Expertise<sub>F-D</sub>*). What initially appears to be a controversy between a function-first and a more competence-driven or dispositional approach to expertise is actually better understood as an

entangled interrelationship. Nevertheless, that expert dispositions are plausibly understood with reference to a service function – as the higher order disposition to serve<sup>45</sup> – does not undermine the fact that the ascription of this *function* usually depends on the prior recognition of ordinary *competences* to do. Therefore, the *conceptual* dependence between an expert's dispositions and function allows for an *epistemic* priority of ordinary competence to which advocates of competence-driven accounts can legitimately refer. However, this kind of priority does not support either of the reductionist's theses. It is for this reason that neither of the above readings is more fundamental. Instead, the relation between expert dispositions, manifestations, and functions is best understood as a relation of varied conceptual and epistemic interdependence. Neither does an expert's function simply follow the expert's dispositions, nor are expert dispositions simply set by an expert's function; rather, both aspects can be considered integral parts of the general concept of expertise.

Having expertise should therefore not be reduced to the expert's functional dimension (see Sect. 4) or to the possession of ordinary dispositions to do (see Sect. 5). In light of the foregoing discussion, it appears more plausible to assume that expertise needs a more balanced understanding comprising serviceable dispositions and manifestations, on the one hand, and a corresponding service function on the other.<sup>46</sup> With this new emphasis, objective experts do not fulfill some individually necessary and otherwise independent conditions, but at least three essential conditions that are intimately related and therefore cannot be reduced to either of them:<sup>47</sup>

(EXPERT<sub>F-C-M</sub>) Someone *e* is an objective expert in contrast to some client *c* within a certain domain *d* only if *e* is undefeatedly disposed to fulfill a particular service function in *d* for *c* adequately at the moment of assessment.

As a result, the instantiation of hybrid kinds such as expertise is always relative to the ascription of a service function and is thus partly mind-dependent. This might be the underlying point of the following claim:

“If someone loudly declares ‘I’m an expert’, then we can always reply ‘Only if we say you are.’” (Stichter 2015, 126)

This claim expresses that expertise is essentially an ascriptive property, so that nobody can be an expert completely irrespective of the attribution of a service function, no matter how competent this person eventually is.<sup>48</sup>

## 7 Conclusion

We have now arrived at a balanced account of objective expertise: someone is an expert only if she is undefeately disposed to fulfill a contextually salient service function adequately at the moment of assessment. Moreover, this account points to the possibility of dispensing with at least explicit ascriptions of an expert’s role or function<sup>49</sup> and allows for an understanding of an expert’s capabilities as her dispositions to serve. By reconciling the three major dimensions of expertise ascription that were introduced in Section 2, we eventually arrived at a general framework for the explication of expertise that takes reductionist’s concerns into account without representing a reductionism itself (in Sect. 6). To come to these conclusions, the chosen dialectic was to initially reject reductionism<sub>D</sub> almost completely (in Sect. 5.1-2), before an affinity between competence and expertise ascriptions led us to unexpectedly reapproach reductionism<sub>D</sub> once again (in Sect. 5.3). Finally, it is important to mention that this framework is still no full account of expertise<sup>50</sup> but is thought to represent a fertile fundament that reductionists will have trouble resisting.

Acknowledgements: Thanks to Michel Croce, Paul Faulkner, Oliver Scholz and Ansgar Seide for their helpful comments on earlier versions of this paper.

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<sup>1</sup> Some guiding remarks may be useful here. A word in quotation marks (“expertise”) designates, as usual, the word as a word. If not otherwise contextually apparent (by phrases like “the notion/explication/ascription of expertise”) an italicized and bolded term (***expertise***) refers to the concept expressed by that word, while regular print (expertise) designates the respective phenomenon. When “expertise” is set in capitals and equipped with some index (EXPERTISE<sub>[F,D,M]</sub>), this is a reference to a certain approach to expertise, which is introduced in due course,

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whereas in italics with an initial capital letter (*Expertise*<sub>[F,D,M]</sub>) it refers to a special aspect of the phenomenon of expertise, and in regular print (Expertise<sub>[F,D,M]</sub>) it points to a particular sense of using “expertise.”

<sup>2</sup> Proponents of this skepticism are, for example, Zoltan P. Majdik and William M. Keith (2011a), as well as Oliver R. Scholz (2018).

<sup>3</sup> For the sake of clarification, some remarks are helpful here. For one thing, it needs to be mentioned that these dimensions are almost completely different from what Harry M. Collins (2011) has declared to be the three dimensions of expertise. And for another, it is important to stress that “dimension” is only used to reference different aspects of expertise ascription, that is, to the different manners in which “expertise” can be used.

<sup>4</sup> If not indicated differently, an indented sentence in quotation marks without further reference is a common usage of “expertise” and thus is no direct quotation.

<sup>5</sup> I will understand competences as a special kind of disposition to do (for discussion see Fantl 2017; Löwenstein 2017, 171-6; Vetter 2016). As such they are subject to both trigger- and manifestation-conditions (cf. Choi and Fara 2016) and can be suitably characterized by trigger-manifestation conditionals. According to Sosa, for instance, the trigger conditions for competences are tryings, while the manifestation conditions pertain to a special kind of modal stability in attaining agential successes (cf. Sosa 2015, 96). Thus, the competence to open jam jars is a disposition which is roughly represented by the following conditional: If she tried to open a jam jar under appropriate circumstances, then she would likely enough (safely) succeed in the right causal way (non-deviantly). When these conditions are fulfilled and the corresponding success eventuates, the success manifests competences and represents an achievement.

<sup>6</sup> A case of intervening luck may clarify the point in question: “Take an archer’s competent shot that (a) would hit the target absent intervening wind, and (b) does hit the target because, although a first gust diverts it, a second gust puts it back on track. Here the agent’s competence yields the early orientation and speed of the arrow, and this combined orientation and speed, together with the two compensating gusts, results in the bull’s-eye” (Sosa 2015, 13). Thus, absent intervening wind the resulting success would be competently caused (or manifest *competence*) and therefore represents an achievement, while in the other case, the success is caused by competence, but manifests *luck* and so does not represent an achievement (see also Bradford 2015, 64 ff.).

<sup>7</sup> Note that I have elsewhere characterized the dispositional-sense of expertise ascription as the competence-sense, or Expertise<sub>C</sub>, and the manifestation-sense of expertise ascription as the product-sense, or Expertise<sub>P</sub> (cf. Quast 2018, 14 ff.).

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<sup>8</sup> See, “expertise, n.,” “expert, n.” and “expert, adj.1.” in OED Online. Oxford University Press, December 2015. Web. 5 June 2017.

<sup>9</sup> Mehmet Scholl is a former football player who was formerly employed by ARD, a German public-service broadcaster, to comment on matches of the national football team. Interestingly, former football players are often invited to comment on football matches although their suitability is regularly put into question. To be sure, more often than not former football players are invited to comment based on the assumption of relevant competences like an understanding of strategies, mental attitudes and challenges, abilities in match analysis, insider information and the like. This is not put into question. However, it is important to note that former football players are still often considered football experts, even if their suitability is put into question.

<sup>10</sup> Moreover, someone is a *subjective* expert insofar as she believes herself to have suitable dispositions or sets herself to play the relevant role.

<sup>11</sup> These *intersubjective* manners of expertise ascription are sometimes referred to as the *relational* manners of usage according to which expertise is what is accepted as expertise in a given society (cf. Collins and Evans 2007, 2). To avoid misunderstanding, this does not coincide with my functional approach to intersubjective expertise (cf. EXPERTISE<sub>F</sub>). Rather *Expertise<sub>F</sub>* is just a special interpretation of these relational manners of use.

<sup>12</sup> There are a couple of predecessors of similar views: See exemplarily Agnew (1997), Hartelius (2011), Mieg (2001; Mieg 2006), and Markus Rhomberg and Nico Stehr (2007), to name just a few.

<sup>13</sup> Note that “conceptual function” is a technical term which refers to the function of a phenomenon that is set by falling under the respective concept.

<sup>14</sup> This limitation is due to the fact that human agents are by nature not only cognitively and temporally restricted, but also in many other respects like natural abilities, skill acquisition, location, motivation, etc.

<sup>15</sup> In this paper (cf. Quast 2018, 17), I have argued that *expertise* is best understood against the backdrop of restricted sentient beings and their complementary need for cooperation to optimize their available resources. These beings have potentially infinitely many interests and desires, the fulfillment of which is inherently *pleasant*, and a restricted amount of executable efforts to fulfill these interests, the execution of which is inherently *unpleasant*. To overcome their individual restrictions, these beings try to improve the proportion between fulfilled interests and executed efforts on the basis of two major strategies: They can either optimize their individual expenditure of effort or they can socially expand their available resources. The former strategy basically consists in executing efforts economically, that is, its execution has to be efficiently directed at the most relevant ends, while the latter strategy socially widens the available resources by asking other agents for support. By attuning both strategies



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each other their output can be increased. This is where *individual* efforts are economically directed at an efficient selection of *social* support, that is at identifying competent agents apt for fulfilling our most salient interests.

<sup>16</sup> Such a functional understanding of expertise is implicit in several of the characterizations highlighted above. However, it could also underlie the expertise ascriptions of those who are “asked for *advice* when important and difficult decisions have to be made” (Germain and Enrique Ruiz 2009, 627, my italics), who are understood as *problem-solvers* (cf. Germain and Enrique Ruiz 2009, 624), or as people who “*tell* you how to fix [...] faults and get things working once more” (Cornford and Athanasou 1995, 10, my italics).

<sup>17</sup> Although this paper will be primarily on the interrelation of the expert’s *dispositions* and *function*, this does not mean that the dimension of *manifestation* may be neglected for a proper understanding of *expertise*. On the contrary, the idea of competent causation provides an important specification of the way in which experts need to fulfill their given function in order to manifest their dispositions. This is why experts are not only thought to be agents who are suitably disposed (cf. EXPERTISE<sub>D</sub>) to reliably fulfill their contextual function (EXPERTISE<sub>F</sub>), but prove themselves to be experts by manifesting relevant dispositions (cf. EXPERTISE<sub>M</sub>). This will become more evident when disclosing the *default and query structure* of expertise ascriptions in Sect. 5.2.

<sup>18</sup> Of course, holding a competence-driven or more functionalist account does not automatically commit to any kind of reduction (cf. fn. 19).

<sup>19</sup> It is worth mentioning that not every claim for the priority of one dimension of expertise ascription already implies the stronger claim of reducibility. So, principally, the claim can be advocated that one dimension is dominant or comes first without considering it to be a proper basis of epistemic reduction. This could be a balanced account of expertise with different emphasis on its constitutive parts. I will come back to such an account in due course (see Sect. 6).

<sup>20</sup> Reductionism<sub>M</sub> is left out intentionally because it is evident that the manifestation of dispositions in performative successes is conceptually derivative of the possession of these very dispositions. Therefore, a reductionism<sub>M</sub> is highly implausible right from the beginning.

<sup>21</sup> The discussion about primary competence refers to *technical* skills, knowledge, or understanding of a contextually relevant subject matter (plumbing, particle physics, epistemology, wine tasting, etc.). Reference to secondary competence, in contrast, is different because it applies to the social *exercise* of primary competence and thus to performative abilities, mediation competences, communication skills, trust-building abilities, etc. Although not explicitly stated, such a differentiation is indicated within a number of characterizations of expertise. In this vein, it is often claimed that expertise not only requires an extensive fund of (primary) competences, but also “a set of

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skills or methods for apt and successful deployment” of these competences (Goldman 2001, 92), “relevant heuristics and methods for applying” them (Licon 2012), “the ability to engage productively with a subject matter” (Watson 2018, 48), “to employ strategies for acquiring new knowledge about the domain” (McBain 2007, 127), or “to provide inventional capacities for selecting the best possible resolution of a particular problem vis-à-vis particular expectations regarding the resolution of a problem” (Majdik and Keith 2011b, 371). In other words, being an expert not only presupposes “armchair” competence, but also secondary competence for its application. As will become apparent in due course, the underlying reason for this requirement is that expertise is to be understood as a disposition to serve (see Sect. 6).

<sup>22</sup> See, “expert, n.” in OED Online. Oxford University Press, December 2015. Web. 5 June 2017.

<sup>23</sup> See David Coady (2012), Hubert L. and Stuart E. Dreyfus (2005), Sanford C. Goldberg (2009), Goldman (2001), Elizabeth Fricker (2006), Jimmy A. Licon (2012), Michael Luntley (2009), James McBain (2007), Barbara G. Montero (2016), Robin Nunn (2008), George S. Pappas (1994), Oliver R. Scholz (2018), Jean H. M. Wagemans (2011), Jamie C. Watson (2018), and Bruce D. Weinstein (Weinstein 1993).

<sup>24</sup> See John R. Anderson (2007), Michelene T. H. Chi (2006), William G. Chase and Herbert A. Simon (1973), K. Anders Ericsson (2008), Paul J. Feltovich et al. (2006), Giyoo Hatano and Kayoko Inagaki (1984), Robert R. Hoffman (1998), Michael I. Posner (1988), Robert J. Sternberg (1998), and many others.

<sup>25</sup> See Collins and Evans (2007), Richard W. Herling (2000), and Stephen P. Turner (2001).

<sup>26</sup> As John Hardwig (1985, 347 ff.) stressed already, these dispositions need not be understood in individualist terms, but can also be construed along more collectivist lines (cf. Lackey 2014). That is, it is sometimes favorable to allow for expert dispositions that are partly seated in the individual members of a team. But to keep things simple, this complication will be left out of the following.

<sup>27</sup> Another two remarks: Firstly, the instrumental function of competence is not necessarily connected with extrinsic utility but just references the bare goal-directedness of competence. Thus, the success of milling around need not take the form of achieving a distinct target, it may just consist in simply milling around well (cf. Vetter 2016, 15). To put it differently, “[W]hat I have an ability to do is what my systems were maintained or selected for doing” (Millikan 2000, 61). Secondly, the alleged contrast between instrumental and social functions does not imply that both cannot overlap to some extent. For social functions can be instrumental just as instrumental functions can be social. The crucial point, however, is that only a minor subclass of instrumental functions is relevantly social.

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<sup>28</sup> For different views, see Collins and Evans (2007, 13 ff.) and Arthur L. Caplan (1992, 31), as well as a marginal note found in Goldman (2018, 5).

<sup>29</sup> Imagine, for example, being asked to translate a German inscription into French on a memorial in Verdun, France, or to pronounce “Zeitgeist” properly.

<sup>30</sup> For further details concerning social contrast and expertise ascription, see Quast (2019, § 4 f.).

<sup>31</sup> This incoherent idea is prominently defended and used by Collins and Evans (2007, 15-8).

<sup>32</sup> Etymologically, this certainly is the most original semantic contrast (cf. R. Williams 1985, 129). However, for reasons which I cannot explain at length, it is plausible to argue for the more fundamental contrast between *expert* and *client* (cf. Quast 2018; Grundmann 2017). Therefore, a group of laypersons should be considered as just one paradigmatic contrast class amongst others (for some alternatives see Scholz 2018, 30).

<sup>33</sup> The underlying idea is that *expertise* comprises a *social* service function, whereas *competence* needs to be understood exclusively along *instrumental* lines. However, this is not claiming that social contrasts are bluntly irrelevant in cases of competence ascription. Quite the contrary, it is obvious that these contrasts, for instance, are part and parcel of determining what it takes for an agent to perform reliably *enough* and so to be competent. This will become evident in Sect. 5.3.

<sup>34</sup> In Quast (2019, § 4 f.) this social contrast of expertise ascriptions is explained by means of an indexical functionality in using “expertise.”

<sup>35</sup> In what follows, a deontic difference is a difference in *ought* as opposed to an expert’s *being* suitably disposed.

<sup>36</sup> It seems fair to mention that Williams’ actual focus is on epistemic performances, epistemic subjects, and knowledge ascriptions. Nevertheless, he sometimes explicitly extends the scope of his claims to general agency, agential subjects, and achievements more broadly construed (cf. M. Williams 2013; M. Williams 2015).

<sup>37</sup> To understand this, just consider that chicken-sexers or similarly competent persons often cannot make the underlying rules of their actions explicit (cf. Stichter 2015, 112).

<sup>38</sup> Recall that an expert’s function is understood here as part of its conceptual content (cf. fn. 13). This is similar to other notions like vegetable peeler, light switch, driveway, screwdriver, soap dish, clothes hanger, bookmark, circus tiger (cf. fn. 47). Thus, claiming someone to be an expert is already ascribing her a service role and thereby the corresponding obligations.

<sup>39</sup> Thus, the disposition to serve (or *Expertise<sub>D-F</sub>*) already incorporates primary and secondary competences as well as a relevantly virtuous character.

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<sup>40</sup> A plausible defeat can result from one-off violations of pertinent obligations, at least when they are grave enough, or can just as well be based on repeated minor violations. For the former case, think about an expert witness on the stand who refuses to give evidence for her claims. (“The role of the expert [...] finds perhaps its clearest expression in the archetypal figure of the *expert witness* before a court of law” [Gelfert 2014, 182]). But this does not change the fact that every defeat of expertise ascriptions allows for some amount of vagueness and is subject to context-sensitivity (cf. Quast 2019, § 6).

<sup>41</sup> Note that this is still compatible with the common intuition that a lack of competences is often much more damaging to an expert’s status than a lack of willingness to give an account of one’s performances. This is because a lack of relevant competence is usually harder to eradicate than a lack of corresponding willingness.

<sup>42</sup> Notice that the talk about the individuation of expertise, competences, or dispositions is straightforward and just means “to single these properties out” (cf. Lowe 2003, 75 f.).

<sup>43</sup> Does it require a *contrastivist* (a simple or a qualified difference?), an *absolutist* (a maximalist or a less requiring measure), or even a *combined* threshold for being an expert? I have tried to answer these questions elsewhere on indexicalist and assessment sensitive grounds (cf. Quast 2019, § 6).

<sup>44</sup> Notice that the issue of relativity, which comes down to the problem of setting adequate contrast classes in cases of expertise, is left out intentionally here. The reason that it can be neglected at this point is that competence ascriptions are not constitutively contrastive in a similar kind of way. This is claiming that, in contrast to competence, expertise can get lost due to changes in the salient contrast class, whereas competence is usually widely immune to bare Cambridge changes (cf. Quast 2019).

<sup>45</sup> To recall, competences to serve always comprise primary and secondary competences to fulfill contextually appropriate service functions and therefore can be considered as higher order dispositions.

<sup>46</sup> But then expertise ascriptions to hermits are not straightforwardly *invalid*, but somehow *pointless* nevertheless. Since they are removed from society, their competences do not matter so much if we already know them to be not at a client’s disposal. Even if a hermit is suitably disposed to fulfill the ascribed service function, its fulfillment and thus the manifestation of these dispositions is almost impossible due to her chosen hermitism. This is why expertise ascriptions to hermits are considered to be ultimately pointless.

<sup>47</sup> We are already familiar with those hybrid kinds. Their existence is often reflected in our common names for things – for example, vegetable peeler, light switch, driveway, screwdriver, soap dish, clothes hanger, bookmark, circus tiger, and so on (cf. Preston 1998, 243). Interestingly, each of these things is characterized by featuring certain *dispositions* on the one hand which are set to fulfill a descriptive *function* on the other. In this vein, a circus

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tiger can perform a series of trained tricks and is set to do so during performances, while a screwdriver has certain dispositions which are expedient for torment, for example, but are conceptually set to loosen and tighten screws.

<sup>48</sup> For those who are still uncomfortable with an ascriptive approach to expertise, consider that it could be less demanding than it initially appears. The *first* and most obvious way to ascribe expertise is by declarative speech acts like the following: “From now on, you are our expert for financial concerns of any kind.” But these explicit ascriptions are the exception rather than the rule. Thus, a more implicit way of expertise ascription consists in *intending* someone to fulfill a service function for someone else. Such an intention can be, *second*, prior to the respective action or represents, *third*, an intention in action, to borrow a prominent phrase introduced by John R. Searle (1983, 83-98). In the former vein, you can visit a dentist to let her check your teeth without explicitly calling her an expert on these matters before. But nevertheless, by intentionally going to the check-up and receiving a service, expertise is ascribed more implicitly on the basis of your prior intention. In contrast, an expertise ascription in action is a case also worth considering in which no declarative speech act or prior intention can be identified. Rather, this is thought to be a case where the course of cooperative action itself determines whether expertise is implicitly ascribed or not. But these cases are highly controversial and open to further discussion. Anyway, at this juncture, it shall be sufficient to consider the possibility that expertise does not necessarily presuppose explicit or even declarative ascriptions but can also be considered to have a more implicit basis, whether this is based on prior intentions or on the behavior itself.

<sup>49</sup> See fn. 48.

<sup>50</sup> A more encompassing account of *expertise* is proposed in Quast (2018).