The Vocabulary of Epistemology,

with Observations on Some Surprising Shortcomings of the English Language.·

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Dedicated to Kevin Mulligan on the occasion of his 60th birthday.

Abstract. After some observations on the conference performance of Kevin Mulligan, the paper notes shortcomings in the English epistemic vocabulary concerning the crucial terms *knowledge*, *science*, *evidence*, *certainty*, *proof*, *demonstration*, and *proposition.*

"No *Englishman* ever understood the process/product distinction." Those words, spoken in an authoritative, then high-pitched, slightly nasal voice, and not without considerable malice, immediately captured my interest, since in my first non-technical philosophy paper I had been concerned to apply precisely this distinction to the notion of *construction*. The speaker was Kevin Mulligan, and the occasion the first time we met, in a gathering of participants, during the 1989 Wittgenstein Centenary in the *Volksschule* at Kirchberg am Wechsel in Lower Austria. His words were not directed against me, but who the intended victim or victims of his words were, I do not now recall. Peter Simons? Barry Smith? As likely as not, *both* probably were. On another occasion, at a later Kirchberg meeting, I was myself at the receiving end of Mulligan's strictures. When in my lecture on *Rationality and Mistakes,* I had the temerity to refer to the Duke of Wellington as an "*English* military leader", I was firmly called to order by a discrete, albeit quite audible, cough from Kevin's corner.

Since that first occasion, there have been many more meetings, sometimes at Kirchberg, where one of the more amusing exploits involved Kevin's bribery of a waiter to let him out via a back door at the *Tausendjährige Linde*, but mainly elsewhere, for instance, in Copenhagen, when we both served on a Lund University Evaluation Panel, or impromptu encounters at *Vrin*'s in Paris. More often than not, good food and wine have

been involved, and my children remember "Professor Mulligan" as a most convivial dinner guest in my house. Kevin likes to be kind; thus, recently at Cracow, in spite of having already dined in the most august company possible, he took me, who arrived - tired and irritable - six hours delayed, to a nice fish-restaurant and saw to it that I was properly fed. Twice over the past decades, I have not take his advice on where to eat, and both times with highly disadvantageous consequences; I have resolved it shall not happen a third time.

However, that first *obiter dictum* of Kevin's has always remained with me; it was spoken, half in jest, as part of mildly provocative banter, but nonetheless it set me thinking. Now, after more than 20 years, I would even go further than my distinguished Geneva colleague:

> Not only is the process/product distinction not well understood among English epistemologists, but, by and large,

English is not at all well tuned to the needs of epistemology.

It is my aim in this note in Kevin's honour to point out and exemplify some perhaps surprising shortcomings.

Undoubtedly the first and foremost cause for these lies with the verb *to know*. The German, Dutch, and Scandinavian languages each have a pair of words at their disposal *kennen/wissen* (Ger), *kennen/weten* (Du), *känna/veta*, Swedish). Similarly in French we have *connaitre* and *savoir*, and in Italian (Latin) *cognoscere* and *sapire* (*scire*), whereas in English we have only the one verb *to know.* The difference between the two verbs in the pairs is that one is used for expressing "knowledge of objects", whereas the other expresses "knowledge of truths". Thus, for instance, "I know Kevin Mulligan; I know that he is a Professor." is translated into Dutch as "Ik ken Kevin Mulligan; ik weet dat hij een hoogleraar is." Knowledge of *objects* is expressed by means of *kennen,* whereas knowledge of *truths* is expressed by *weten* or *wissen*. Of course, we also have *Wissenschaft* (*vetenskap*, *scientia* from Latin *scire*). Science, of course, is a term that has narrowed it's meaning incomparably, whereas *Wissenschaft* (*wetenschap*, *vetenskap*) has retained its broad meaning: "Arts and Sciences" originally meant something quite different from how it is now usually taken. English sadly has jettisoned the fine verb to *wit*. Today we only come across it in the King James Bible: "God wotteth...."and in such terms as *witness*, *witty*, and the idiomatic use of "*to wit".* Had it still been current,

witcraft might have served as a fine translation of the title of Kant's third *Critique*. Also the *active* side of knowing is no longer part of the meaning of the verb, except perhaps when considering "knowledge in the Biblical sense".

Most Anglophone analytic philosophers that I have spoken to, once they have understood –of course, if Mulligan was right at Kirchberg, here, perhaps, it rather ought to be: tried to, but failed to understand fully - *this* distinction, implicitly appeal to the Principle of Expressibility that what can be expressed in one language can also be expressed in any other language, and say that the lack of the verb *to wit* is not a serious impoverishment, since the "objects versus truth" distinction will enable one to say everything in English that can be said in German or French or Dutch or Swedish or … . That might be so, but in those languages grammar automatically points the way to, or takes care of, certain distinctions, whereas in English one has first to hit upon these distinctions and then see how they might be expressed. Clearly, it is much more difficult to draw a distinction when one has to find it *ab novo* than when it is a part of the linguistic fare and readily served up on a plate of grammar. Furthermore, with potentially disastrous consequences, the phrase "know a proposition" becomes ambiguous between the object and truth readings, between grasping what is said, and between knowing that what is said is true.

Related to this is the treatment of *Gewissheit*. Wittgenstein's *Über Gewissheit* – a work to which Kevin Mulligan has devoted much thought, and on which, if I remember correctly, he has even supervised doctoral work – is very hard, nay, almost hopeless, to translate into English. *Certainty*, the customary rendering of *Gewissheit* in English, is also the proper translation of *Sicherheit*. Thus one needs another English word in contrast to *certainty* that would bring out the difference between *Sicherheit* and *Gewissheit*. *Certainty*, certainly, is an adequate translation of *Sicherheit*. It captures the notion of assurance, of putting one's hand into the fire, of offering a guarantee in order to meet an obligation. When you request a loan, the building society or bank will ask for a certainty, for an insurance that the loan is safe. Here the appropriate terms in the Germanic languages are *Sicherheit* (Ger), *zekerheid* (Du), and *säkerhet* (Sw). One could not, however, put up a *Gewissheit* as guarantee for a loan. In Dutch law, I have been told, the testimony of a witness has to be, at least to the satisfaction of the court, "*wis en zeker*". We could perhaps translate this with "grounded and firmly held". The *wis* is a cognate of

weten, the kind of knowledge pertaining to truths. Thus, the statement of a witness must be appropriately – objectively – grounded, for instance, by the witness being present, so that he could see what happened, and, secondly, it must be subjectively grounded in the sense that the witness is certain of what he saw, that his memory impressions are firm. In Swedish the same pair exists as in German: *visshet* versus *säkerhet*, where the latter has the same aspect of assurance. I have nothing to offer here as to the proper translation of Wittgenstein into English. Perhaps the best would be to use *certainty* for both notions and give the German in brackets to show what the original word is. This, after all, is the current fashion in high-minded Anglophone Frege scholarship regarding, for instance, *Begriffsschrift* (the ideography, not the book!), *Sinn*, and *Bedeutung*, which terms are, in such works, as often as not left without translation. In this case of the Fregean *Begriffschrift*, though, this gambit is otiose, since *ideography* is the perfect English translation as stressed by Kevin's erstwhile Geneva colleague Jonathan Barnes in a fine paper published in *Dialectica,* Vol. **56** (2002). The absence of a proper translation for *Gewissheit* is patently related to the absence of a live proper English equivalent to *wissen*.

A further very deviant usage in epistemological English concerns the fundamental notion of *evidence.* This according to the first meaning in the OED is:

> The quality or condition of being evident; clearness, evidentness.

It might come as a surprise, but this *is* the first meaning the OED offers for evidence. However, no Anglophone philosopher – not even Kevin Mulligan, as erudite an *afficonado* of Husserl and Reinach as any, who, when I drew his attention to this OED explanation of *evidence*, stated that one ought to use "self-evidence" instead - will read *evidence* as meaning the evidence *of* what is evident, but always, presumably under the influence of Anglo-Saxon legal parlance, and contemporary Anglo-American Philosophy of Science, take it as evidence *for.* James Allen's *Inference from Signs*, Clarendon Press, Oxford, 2001 is the only recent Anglophone discussion I have found where this is even noted. The author, however, does not share my scruples, but takes quiet pride in English deviancy:

> Cicero introduced *evidentia* ..., the quality of being evident... In this sense it entered European languages, including English, where, however, one tends to speak of 'self-evidence' because ***English uniquely recognizes the sense of evidence*** at issue ...

Here the emphasis is mine, and the sense at issue is the British one of evidence *for* rather than *of.* Sadly, this "legal" usage is being exported back - by philosophers of science - to German and one can find examples of *Evidenz für* in current German articles in *Allgemeine Wissenschaftslehre.* However, Mulligan's (and Allen's) proposal to use *self-*evidence as a translation of, for instance, German *Evidenz* in its proper, uncontaminated sense will not do. In the case of a *propositio per se nota*, its evidence is grounded in the *propositio* itself and then *self-*evidence will be apt. When the evidence is *mediate*, rather than immediate, though, *self-*evidence clearly is out of place, since its evidence is not grounded in the claim itself, but in that of other claims. The customary use of the term *immediate* in the distinction between immediate and mediate evidence might be a further source behind the British confusion; this immediacy is in no way *temporal.* Something self-evident need not be at all *obvious* or patent. On the contrary, a mathematical axiom, taken in the old-fashioned sense of self-evident judgement, but not in the modern senses of a hypothetico-deductive assumption, or of (a component in) a structure-theoretical definition, say, an induction principle with respect to a highly complex well-founded ordering, might pose a hard challenge conceptually. Considerable experience might be needed in order to familiarize oneself with the concepts in question before the self-evident status of the axiom is grasped. It is not for nothing that the Scholastics, for instance Thomas Aquinas in *Summa Theologica*, Q II, art. 1, considers propositions that are *per se nota (in se), per se nota ad nos* and *per se nota ad sapientes.* We might perhaps render this tripartite Thomistic distinction as *self-evident*, self-evident *to u*s, and self-evident *to the learned.* In German *per se nota* was rendered elegantly as *an sich Erkanntes* by Horst Seidl in his translation of Aquinas' *Five Ways.*

Proof is another unhappy term that unfortunately is omnipresent in current Anglophone Philosophy of Mathematics, for instance in *Proof Theory,* which is the translation of German *Beweistheorie.* Dag Prawitz told me that he once received an invitation from a Swedish university to come and give a lecture on "*provteori*", which in Swedish means something like *the theory of tests*. What had happened was that Swedish *bevisteori* was translated into *proof theory*, which in turn was mistranslated back to Swedish as *provteori*. The event is reminiscent of the old chestnut concerning the automatic translation of: "The spirit is willing but the flesh is weak" (Matthew 26:41）into Russian, and back again, as: "The vodka is strong, but the meat is rotten." Surely it would here be preferable and profitable to use *demonstration* instead, which is cognate with

demonstratio (Lat), *dimonstrazione* (It.) and *démonstration* (Fr), as well as with the Germanic *Beweis*. Using *demonstration*, furthermore, has the advantage that it does have a process reading that is absent from *proof*, a point, I suspect, that might be appreciated by the honorand, in view of his erstwhile Kirchberg claim. *Proof* has an entirely different origin and derives from *probare*, putting to the test. Accordingly, it is the *test* (but not the demonstration!) of the pudding that lies in the eating thereof. An approved man, a *vir probatus*, similarly is a tried and tested man. The rum served in the Royal Navy had to be "proof". This meant that it had survived the test of being poured over gunpowder, which then still had to ignite. *Proof* has cognates both in French (*preuve*) and Italian (*prova*). Native speakers inform me that those words are not used for the *act* of demonstration, but have only objectual uses.

Proposition, perhaps, provides the most bothersome case of all. In the tradition a *proposition* is either a judgement (made), that is, what is "*propounded"*, or it can also be the spoken or written garb of such a (mental) judgement, with or without assertoric force. *Enunciation,* or *sentence,* or *statement,* would do as well here, perhaps. Sometimes, in old-fashioned mathematics, a Proposition can also be a *demonstrated theorem*, e.g. the Propositions of Euclid. However, a proposition can also be (the formulation of) a proposal or alternative for action. In stilted parliamentary language, "proposition has been put and a vote shall be taken". A multiple ambiguity similar to that of the old-fashioned notion of proposition is exhibited – at least from Cook Wilson onwards - by the anodyne Oxonian term *statement*. I once distinguished *seven* different uses of the term statement in one and the same Oxford exposition of Philosophical Logic. I had rather fun doing so, but the students in the third-year seminar on whom I had unknowingly inflicted the text in question, since I was unaware of its infelicities, were perhaps less amused.

Matters really became awkward in 1903 with Russell's (mis)translation of the Fregean *Gedanke* in his Frege Appendix to the *Principles of Mathematics*. There a *Gedanke* ("Thought") is rendered *proposition*. With this the earlier confusions become acute, since propositions have now moved from the level of *judgements* also to that of judgemental *contents*. Finally, we have also the notion of proposition used by the logician in his well-formed formulae, for instance, in the propositional and predicate calculi. Following Frege's lead in the *Grundgesetze*, §32, these formulae are associated

with conditions for them to be Names of the True. In order to obviate some of the difficulties the cleave to Frege's doctrine of sentences as names of truth-values, let us say that to each **wff** A there corresponds a condition TC_A such that the **wff** is true if that condition is fulfilled. The truth-conditions for a complex **wff**, say A&B, is then obtained by recursion from the truth-conditions for A and for B:

T $C_{A\&B}$ is fulfilled iff TC_A is fulfilled and TC_B is fulfilled, etc.

However, at this level, no content or sense is provided. We operate solely on the level of reference, but not on that of *sense*. In order to endow the **wff's** with content from their truth-conditions, Frege then said that the *sense* ("Thought", *Inhalt*, content) expressed by the **wff** A is *that TC_A is fulfilled*.

With this move, the resulting confusion has become irreparable. A proposition in an Englishman's text might now be a meaningful sentence, a truth-condition for such a sentence, the content that such a truth-condition if fulfilled, an assertion that what is said in such a sentence is true, or any other out of many more or less likely options …

And on that happy note I safely deliver my observations, not into the hands of an Englishman, but into those of Kevin Mulligan, colleague and friend.