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# CROSSLINGUISTIC SEMANTIC MOTIVATION FOR THE USE OF A GRAMMATICAL CONSTRUCTION IN ENGLISH AND GERMAN: X IS IMPOSSIBLE TO DO / X IST UNMÖGLICH ZU SCHAFFEN

#### CHRISTIAN MAIR

University of Freiburg

In the current debate between proponents of an "autonomous" (and rigorously formalised) syntax and believers in a cognitively or otherwise "motivated" (and fuzzy) syntax, semantic and functional constraints which help to explain apparently arbitrary grammatical facts across languages are crucial evidence. I have elsewhere illustrated the problem with data on believe-type raising in English, German and the five major Romance languages (Mair 1989/90). Here, further evidence pertinent to the same problem will be studied.

### 1. The data

As far as the English examples in the following pairs are concerned, we are dealing with the syntactic fronting operation commonly though not uncontroversially referred to as tough-movement. The hedge "a grammatical construction" in the title of the present paper is due to the fact that in German the number of tough-predicates and the suitable environments for the construction are so restricted that there are doubts as to whether English-style tough-constructions should be assumed for German, at all, and whether it would not be wiser to recategorise the few cases of (under this analysis) apparent tough-movement as special types of other infinitival constructions more common in the language (cf. König 1971:88-9, Hawkins 1986:78-9, 223-4, Comrie and Matthews 1990, Brdar and Brdar-Szabó 1993). This interesting issue, however, will not be followed up here (except briefly in note 2 below), because it is largely irrelevant to my present concerns.

Consider, for a start, the following data:

(1a) This room is very pleasant to live in.

- This room is very unpleasant to live in. (~It is very (un)pleasant to live in this room.)
- Your point is easy to argue.
- Your point is difficult to argue.

(~It is easy/difficult to argue your point.)

As is to be expected<sup>1</sup>, a predicate and its antonym, normally being members of the same semantic class of predicates, may occur in the same syntactic environment. This is paralleled by the German evidence, where - as pointed out above - leicht, schwer and (un)angenehm can either be treated as English-style toughmovement predicates or as adverbial expansions of a modal infinitive (Herr Huber ist zu erreichen)<sup>2</sup>:

- (3a) Herr Huber ist leicht zu erreichen.
- (3b) Herr Huber ist schwer zu erreichen.
- (4a) Das ist angenehm zu wissen.
- (4b) Das ist unangenehm zu wissen.

But there is one set of predicates where this neat symmetry breaks down:

- (5a) \*This task is possible to complete before tomorrow night.
- This task is impossible to complete before tomorrow night.

A clear mismatch between meaning and English grammatical form – evidence for the autonomy of the latter? I doubt it, because in the German data we get the mismatch at exactly the same point. Only unmöglich works as tough-movement predicate, or – if we adopt the alternative interpretation possible for German – as an adverb in a modal-infinitive construction:

- (6a) \*Das ist möglich vor morgen abend zu erledigen.
- (6b) Das ist unmöglich vor morgen abend zu erledigen.

In an area of grammar in which comparing English and German proves so difficult, this is a surprising coincidence indeed, and probably not one that is due to the fact that "parameters" are set in the same way as "Universal Grammar" is being narrowed down and specified to yield the grammatical systems of English and German during the process of language acquisition.

In what follows, I will argue that it is the same difference between the dictionary meanings of impossible/unmöglich and their actual meanings in text which creates an identical, apparently arbitrary but in fact semantically motivated irregularity in the two grammars.

2. Pairs of antonyms: the dictionary meanings of possible/impossible and möglich/unmöglich

The Concise Oxford Dictionary (p. 540) gives the following as the primary meaning of impossible:

Not possible, that cannot be done or exist, (such a thing is impossible; it is impossible to alter them);

and only then goes on to give the following extended meanings:

(loosely) not easy, not convenient, not easily believable; (colloq.) outrageous, intolerable (an impossible hat, person).

Both in substance and in order of arrangement, this broadly corresponds to the definitions found in the three major monolingual leamers' dictionaries currently available (Longman Dictionary of Contemporary English, p. 525, COBUILD English Language Dictionary, p. 729, Oxford Advanced Learner's Dictionary of Current English, p. 426).

German dictionaries also define unmöglich primarily as the antonym of möglich. Brockhaus-Wahrig (vol. 6, p. 408), for example, opens its entry as follows:

1 < 24 [code for absence of comparative and superlative] > nicht möglich, nicht durchführbar, nicht zu verwirklichen; bei Gott ist kein Ding ~ (Lukas 1, 37); du solltest nichts Unmügliches erhoffen, erwarten, versuchen, wollen; (scheinbar) Unmögliches leisten [...] 2 <24> nicht denkbar, ausgeschlossen

Meanings 3 to 5 are marked as colloquial and denote extensions of the basic meaning also found in English:

- unangenehm, von der Norm abweichend, aus dem Rahmen fallend, nicht vorteilhaft, nicht tragbar [...]
- 3.2. unpassend, nicht akzeptabel [...]
- 3.3. jmdn., sich [unmöglich] machen bloßstellen, blamieren [...]
- [...] seltsam, merkwürdig
- 5.1. nicht, keinesfalls (weil es nicht möglich ist, nicht der Wirklichkeit entspricht)
- nicht, keinesfalls, unter keinen Umständen (weil moralisch nicht zu vertreten, zu verantworten).

In the words of Lyons (1977:271) possible and impossible are presented as antonyms, and more specifically, as "ungradable opposites." The predication "X is impossible" implies "X is not possible," and "X is not impossible" implies "X is possible." Both in English and German comparatives and superlatives are unusual

<sup>&</sup>lt;sup>1</sup> If, as I do, one assumes that the surface syntactic regularities of language are to a large extent semantically or functionally motivated (on which see, for example, Dixon 1991).

<sup>&</sup>lt;sup>2</sup> The former interpretation seems more satisfactory for evaluative predicates such as angenehm and wichtig, the latter for the easy/difficult class, where the slots of leicht and schwierig can be filled with adverbial expressions of various kinds or left empty (cf., e.g., "Herr Huber ist (selten/an Freitagen nie/nur mit großen Schwierigkeiten) zu erreichen." Note, however, that the paraphrase relation to "Es ist leicht, Herrn Huber zu erreichen" remains unaffected by this additional interpretation.

and normally associated with metaphorically extended meanings only (cf., e.g., you couldn't imagine a more impossible dress to wear for the occasion).

# 3. The gradability of possible/impossible – evidence from usage

The ungradable opposition described in the dictionaries does not hold if one has a look at how speakers/writers use possible/impossible (and müglich/unmüglich) in actual text. The pairs are not good prototypical contradictory opposites like, for example, alive/dead or male/female, but neither are they fully gradable contraries like hot/cold or old/young (or – to return to examples (1) to (4) above – easy/difficult or pleasant/unpleasant).

Interestingly, however, any gradability that the two adjectives do show does links them not to each other but to other, at first sight unrelated concepts. Thus, there is not really a bridge linking *possible* to its antonym through the following gradual and transitional stages:

probable > likely > possible > unlikely/improbable > impossible

Of course, one finds the occasional authentic corpus-example of people qualifying states of affairs as "possible and indeed very likely", "very unlikely if not impossible" or "possible but unlikely":

- (7) But this [connection between two deaths] again proved unlikely, if not impossible. (LOB L 24/101)
- (8) [...] although very improbable it is not quite impossible that [...] (LOB G 6/152)

But the more typical use of *impossible* in the corpora is as what the *Longman Dictionary of Contemporary English* calls a "limit adjective," i.e. an adjective "not usually used in comparative and superlative forms [but nevertheless used with certain adverbs] to express the 'highest' or 'close to the highest' degree," ("Language Note", p. 454). All three corpora surveyed for the present purpose contain many examples of such "close to the highest degree"-modification, the most frequent adverb being *almost* (5, 6, 3 occurrences in LOB, Brown, LLC respectively), complemented by *next to*, *nearly*, *well nigh* and *just about* (one or two occurrences, and not represented in all corpora). As is shown by the following examples, *almost impossible* is used to mean *very difficult* – a psychologically realistic link that was,

incidentally, also grasped by the compilers of Longman Dictionary of Contemporary English:<sup>4</sup>

- (9) [on recognising the sex of young birds] I think I said earlier that the hens are almost impossible to tell apart unless you get a good view (LLC 10.8a.332 ff.)
- (10) Heliotropes, however, are a very different matter, and unless the green-house can be kept well above freezing point it is almost impossible to keep them through the winter. (LOB E 8/55 ff.)

In the coordination of adjectives, sequences of *impossible* and another predicate denoting degree of difficulty and/ or discomfort are much more common than sequences of *impossible* and epistemological qualifiers such as *unlikely* or *improbable*.

- (11) men who found it difficult and [in] some cases impossible not to raise rents (LLC 12.2. 453 ff.)
- (12) [...] practically a whole age group would be looking for jobs at one and the same time. In such circumstances it would find it hard, and perhaps, indeed, impossible, to absorb within a reasonable time all the young people who had thus been thrown, at one swoop, so to speak, on to the labour market. (LOB B 17/182 ff.)

If one bears in mind the fact that it is precisely the predicates expressing degree of ease or comfort which allow tough-movement, it is not surprising that the construction is extended to impossible, that is to a predicate, which, although technically not a member of the class, is so frequently used in texts to denote the highest possible degree of difficulty/discomfort. Possible, by contrast, is prevented from following suit because even when premodified by an adverb it does not normally refer to degree of ease or comfort. Whether something is hardly, barely/remotely possible or perfectly, easily or even very possible – possible is and remains an epistemological predicate denoting potential or degree of probability.

Of course, analysis of real texts will not fail to reveal the odd experiment at the level of *parole* in which *tough*-movement is extended to *possible* – in trade-offs between syntactic correctness and stylistic complexity or expressive effort:

(13) Designers and manufacturers have produced models for purchasers who run the gamut from a nautical version of the elderly Pasadena lady who never drove more than five miles an hour on her once-a-month-ride around the block, to the sportiest boatman who insists on all the dash,

The corpus examples cited below are followed by abbreviated references to the Brown University Corpus of Edited and Written American English (henceforth Brown), the Lancaster-Oslo/Bergen (LOB) corpus of written British English and the London-Lund corpus of spoken British English (henceforth LLC). For German I consulted the corpora made available through the Institut für deutche Sprache (Mannheim), in particular their "Handbuchkorpus 1985-1987", here abbreviated to HK and containing 9,6 million words of press texts, and the (machine-readable part of the) "Freiburger Korpus", here abbreviated to FK and containing ca. 590,000 words of spoken language. Written examples are given without mark-up, spoken examples without mark-up and in standard orthography.

<sup>&</sup>lt;sup>4</sup> "You can often express a meaning more strongly by using a limit adjective rather than a scale adjective. [...] Compare:

very good - absolutely marvellous incredibly tired - totally exhausted a bit difficult - practically impossible (p. 455)

- color, flair and speed possible to encompass in a single You pay your money and you take your choice. (Brown E 6/70 ff.)
- (14) [list of formulas] Some were very familiar, others "scarcely possible to believe," as Hardy later wrote. (New York Review of Books 5/12/91, p. 13)
- (15) Kerry comments: "As both Bannerjee and Aspin are dead, the personal written permission required by the British judge has, needless to say, not been possible to obtain." (*Private Eye*, 23/10/92, p. 26)
- (16) HIV infection may be impossible to recognise, but it is possible to avoid. (Observer 12/2/89, section 5, p. 13)

Such examples are interesting but should not be made too much of. One, (13), is a nonce construction due to pressures of information packaging (cf. 4 below). The grammatically "correct" alternative ("which it would have been possible to encompass in ...") would have further bloated a sentence which is complex enough as it is. The other three examples actually strengthen our case as the "X is possible to do"-constructions get a free ride on the back of the corresponding impossible-structures. Examples (14) and (15) show possible negated or preceded by an adverb (scarcely) with negative polarity, thus giving the idea of impossibility. The word impossible itself is actually present in (16), where the meaning can be paraphrased as "while HIV infection is impossible ("extremely difficult) to detect, it is rather more easy (hence possible) to avoid."

The German corpus data reveal some phenomena which are interesting from a contrastive point of view, for example the fact that unmöglich regularly co-occurs with können to express an idea which in English is expressed by the combination of possibly with cannot (e. g. so etwas kann man unmöglich sagen vs. you can't possibly say such a thing). From the point of view of the present paper, however, it is more interesting to note the far-reaching similarities with the English data. As with impossible, it is rare to find uses of unmöglich in which the word is merely used to negate possibility:

(17) Mit diesen Worten forderte der Präsident der Deutschen Gesellschaft für Chirurgie, Hans Joachim Streicher, am Mittwoch zur Eröffnung der 103. Jahrestagung in München seine 2000 Kollegen auf, nie etwas für unmöglich zu erklären, was vielleicht morgen schon möglich sein werde. (HK 1986/JM3/2329)

As in English, the adjective is usually treated as gradable, the preferred premodifying adverbs being fast and nahezu (13 and 8 occurrences respectively in HK) and others including völlig, beinahe und vollends. Depending on how generously one will define collocational ranges, there are between 13 and 20 occurrences in the two German corpora in which unmöglich is used to denote a very high degree of difficulty:

(18) Doch so lange es für einen Facharbeiter und Meister schwer bis unmöglich ist, eine Hochschule zu betreten, bleibt die Einsicht der Ministerin folgenlos, ein Lippenbekenntnis. (HK 1985/CZ 1/1921)

- (19) Dies führt dazu, daß die Gemeinschaft auf die Außenstehenden oft sehr viel einheitlicher und geschlossener wirkt, als für die Europäer selbst, die deutlicher sehen, wie schwer es ist und oft unmöglich gemeinsame Antworten auf viele politische Fragen zu finden. (HK 1985/QA1/5322)
- (20) Sie hieß Margaret Sanger und setzte sich schon zu Beginn des Jahrhunderts dafür ein, daß die Last der Verhütung erstens nicht den Frauen allein überlassen blieb und zweitens nicht durch alle möglichen gesellschaftlichen Vorbehalte unnötig erschwert, ja unmöglich gemacht wurde. (HK 1986/JZ4/582)

Two of these examples could be rephrased as tough-movement structures:

- (18a) ... solange eine Hochschule für einen Facharbeiter und Meister schwer bis unmöglich zu betreten ist ...
- (19a) ... wie schwer und oft unmöglich gemeinsame Antworten auf viele politischen Fragen zu finden sind.

That the approximately 10,000,000 words of text surveyed should contain just one actually attested example of the construction is striking evidence of its marginal status in German:

(21) Die Erklärung des Sinngehalts aber und zugleich noch die Vermittlung der Handlung sind in der kurzen, jeweils zur Verfügung stehenden Zeit unmöglich zu leisten. (HK 1985, QZ 1/2464)

Note that this example is typically vague, pointing as it does both to a complex-sentence paraphrase (es ist unmöglich, Erklärungen und Vermittlung in der kurzen, zur Verfügung stehenden Zeit zu leisten) and to an underlying modal infinitive (Erklärung und Vermittlung sind zu leisten).

Evidently, the inductively obtained semantic profile emerging from the corpora is the same as that of English *impossible*. And so are the grammatical consequences. One finds *unmüglich* in constructions in which one encounters other adjectives denoting degree of ease or difficulty, in addition to the marginal *tough*-frame:

- (22a) Das läßt sich leicht/schwer so erklären.
- (22b) Das läßt sich unmöglich so erklären.
- (22c) \*Das läßt sich möglich so erklären.

If used here, möglich has to be expanded into möglicherweise, a process which is practically non-existent for unmöglich (cf. ??unmöglicherweise). Arguably, this particular asymmetry has a functional counterpart in English in the vastly different distribution of the adverbs possibly – frequent and multifunctional – and impossibly – very rare and found only with the metaphorically extended uses of impossible, as in behave impossibly or impossibly (=unbelievably) low cost.

In sum, the corpus evidence for English and German shows that impossible/un-möglich in natural-language use is not really the negation of its logical antonym but has moved into a different class of adjectives, those expressing degree of dif-

ficulty. The grammatical asymmetries between unmöglich und möglich on the one hand, and impossible and possible on the other reflect this semantic shift. An apparently arbitrary structural contrast turns out to be motivated. One is reminded of a citation in the German material which may serve both as an exemplification of and as an ironic commentary on the process discussed here:

- (23) *Unmöglich*, was da passiert ist. (HK 1985/0Z 1/8789)
- 4. Information packaging as alternative functional motivation?

In the search for possible semantic or functional motivations for tough-movement, it has been pointed out that the construction improves topical coherence across sentences and helps to bring about structural simplification within complex sentences – which is why (24a) and (25a) are said to be preferred to (24b) and (25b):

- (24a) Q: Tried the new ones yet?
  - A: Yes, they are easy to use, I think.
- (24b) Q: Tried the new ones yet?
  - A: Yes, I think it is easy to use them.
- (25a) I think the new dictionary is both simpler and easier to use.
- (25b) I think the new dictionary is simpler and it is also easier to use it.

Many attestations of tough-movement found in actual texts can quite satisfactorily be accounted for in this way. However, whether its current usefulness as a stylistic device can also explain why the construction first came into being is another matter. For one thing, fronting is often not used with impossible even where it would have been advantageous to do so in terms of functional sentence perspective and efficient information structure.

- (26) Nettled by some remarks by de Gaulle, the Soviet Premier had declared that France would be obliterated in another war and added: "However, it is impossible to destroy the Soviet Union." (Brown A 26/129 ff.)
- Possibly such hybrids occur, but have not been recognised. Owing to the degree of overlapping which occurs in scale and fin ray counts between the two species, it would be almost impossible to detect such a hybrid by external means although examination of the pharyngeal teeth and gill rakers would certainly identify the fish [...] (LOB F 38/60 ff.)

In the first of these two examples a parallel is drawn between France and the Soviet Union. Rephrasing the premier's statement as "But the Soviet Union is impossible to destroy" would have saved space, and – by promoting Soviet Union to the rank of subject – underscored the semantic parallel on the grammatical plane ("France – be obliterated/ Soviet Union – impossible to destroy"). Admittedly, this case is not conclusive as we may be faced with a translation from the Russian. But in the second example the use of tough-movement would have recommended itself even more strongly. "Such hybrids" is the topic throughout the passage, so that it would have been a natural subject in an alternative expression "such a hybrid would be almost impossible to detect ..."

For another thing, we would probably find tough-movement used freely with possible if information structure were indeed the decisive factor. The corpora contain numerous examples in which tough-movement should have been used if the logic sketched above were valid. Consider, for example, the following speaker groping his way through a conversation:

but ah well it would be possible to sort of do that sort of thing wouldn't it (LLC 3.2.477 f.)

It is probably too much to ask for well-thought out distribution of information in unplanned speech, but "that sort of thing" is anaphoric and crassly undeserving of a sentence final, focal position. Hence, why not "that sort of thing would be sort of possible to do, wouldn't It?" Also consider the following example:

While on this subject of exposure, do not forget a lens hood. This is one of the most valuable accessories it is possible to have, and use it every time you make an exposure. (LOB E 24/46 ff.)

Superfluous information though the two words may be, it is is not dropped; the requirements of English grammar are fulfilled.

What all these examples show is that the pressure to use available grammatical variants to make information structure maximally efficient is not very strong. It seems that he is easy to talk to differs from it is easy to talk to him not only in information structure. There is also a subtle shift in meaning, as the former expression is likely to be understood as the description of an individual human being whereas the latter is an assessment of the degree of difficulty of an action.

# 5. The semantics of tough-movement

As I hope to have shown above, the motivation for the use of tough-structures with impossible is the semantics of this predicate, and, more specifically, not the idealised meaning represented in dictionaries but the textual meaning inferred from corpora as authentic records of performance.

As Nanni (1980) has shown, tough-moved structures are not necessarily equivalent in meaning to the corresponding structures without fronting. In fact, toughmovement should be seen as the first stage in the "freezing" of productive syntax which leads to the formation of stable and conventional collocations and, ultimately, to lexicalised complex adjectives<sup>5</sup>. It is only the degree of conventionalisation which accounts for the fact that there are practically no restrictions on easy-to-use but quite a number on ?easy-to-have. Compare the following examples instancing syntactic environments from true productive fronting through predicative qualification of a subject noun phrase to attributive NP premodification:

<sup>&</sup>lt;sup>5</sup> A re-analysis of hard-to-handle (in "X is hard to handle") as a complex adjective was proposed by Chomsky (1981:312) for reasons internal to Government-and-Binding theory.

14 Ch. Mair

- (30) dictionaries which are easy for most pupils to use? feelings which are easy for most people to have Such dictionaries are cheap and easy to use.
  - ? Such feelings are immoral but easy to have.
  - a cheap and easy-to-use dictionary
  - ? immoral but easy-to-have feelings.

Data from very large corpora, such as the increasing number of newspapers available on CD-ROM, suggest that this middle ground between syntax and word-formation is extremely interesting to study. *Impossible* and *achieve*, for example, co-occur much more frequently than the individual frequencies of the two lexemes would warrant, so that it could be argued that *tough*-moved "X is impossible to achieve" fills the gap left by *unachievable*, which – unlike its near synonym *un-attainable* – is very rare.

Direct comparison with German is difficult as far as these matters are concerned but a type of premodification that is without structural equivalent in English exhibits very similar characteristics. Compare:

(31) Es unmöglich, dieses Gefühl in Worte zu fassen.

Dieses Gefühl ist unmöglich in Worte zu fassen.

ein unmöglich in Worte zu fassendes Gefühl

Es ist unmöglich, dieses Kind auf die Musikschule zu schicken.

\*Dieses Kind ist unmöglich auf die Musikschule zu schicken.

\*ein unmöglich auf die Musikschule zu schickendes Kind

In its fine points, this is a most difficult-to-explain area of grammatical complexity in the two languages. But I do hope to have made clear why certain types of fresh produce may (occasionally) be "impossible to get," whereas superficially and syntactically completely analogous English sentences like "a second chance is often impossible to get" or "a better view was impossible to get from where I stood" sound much less natural in the opinion of most informants. Only getting food from the market is a conventional human activity whose degree of difficulty may range from "easy" through "not so easy" to "hard," "very hard/difficult," "almost impossible" and, finally, "impossible." Over time, the many such uses of the word impossible have weakened its link to its antonym possible and moved it closer to the easy/difficult-class of predicates, not only semantically but also grammatically. The process potentially leads to the creation of lexicalised complex adjectives such as impossible-to-get, spelled with hyphens and with a specific meaning ("unobtainable, preferably by purchase") which is more than the sum of the meanings of its parts.

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## Crosslinguistic semantic motivation

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