

This is a document of errata, questions, and suggestions from the translator in Japan to the Authors, especially Darrell Mann, with the hope of response by the Authors in near future.

Responses from Darrell Mann inserted into text. Assume that I am happy with the changes or comments unless I include a comment here. In order to speed the process, I have deleted Toru's text unless I have a comment.

Section 3. Physical Contradiction Resolution Strategies

[Translation Note: Concerning to the concept of Physical Contradictions, strategies for resolving them, and examples of their applications, see Ref. 9, Chapter 11. In the present textbook, the strategy "4) Separation between the parts and the whole" and the three Inventive Principles relevant to the strategy are added to the table in Ref. 9.]

The most important aspect of this table is to show that each of the physical contradiction solution strategies maps to the Inventive Principles. If you have added new elements to the Table, I would like to see how you have mapped them to the Principles. Please bear in mind that the mapping published in the English version is the outcome of a considerable amount of research.

D. Inventive Principles that should be considered (in the decreasing order of frequency): The original text writes as 'Averaged list of other Principles that should be considered where we wish to improve this parameter (decreasing order of frequency)'. 5 to 10 Inventive Principles are described. It should be noticed that in this list the Principles listed in Item C above are not always included, and sometimes listed only in the low degree of frequency.

***** Question (important):** The difference between the items in C and D should be explained better. How were the items in C obtained? How should we guide the readers to use C and D? ***

D represents a mathematical average of how often each Principle was used to solve a problem associated with a given Improving Parameter. Hence, the Principle at the beginning of the list is more common than the second number, etc

C on the other hand has not used any mathematical calculation. The C table is included based

on the findings of the expert panel; when we were running through the test cases for each box in the Matrix, we were essentially constructing solutions for every Inventive Principle. As you might expect, some of the Principles used to derive solutions for a given conflict pair gave stronger answers than others. The C list represents Principles that consistently gave strong solutions for **every** worsening parameter. Thus, it may be that these Principles have not been used often by other inventors (i.e. they may not feature in D), but, according to our research, problem solvers should 'always' consider them for any problem they might be working on.

Sometimes there is a close match between C and D, but sometimes the lists are very different. Important thing to remember is D is a mathematical average, while C comes from expert panel 'strong solution' criteria.

Question (Page 42, 15. Force/Torque, B. Synonyms, etc.)

Original text: ... change of momentum, intensity, lift, drag, ...

Should be: ... change of momentum, **intensify**, lift, drag, ...

'intensity' is the correct word.

Authors' Profiles:

We would like to publish here the profiles and pictures of the four authors.

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