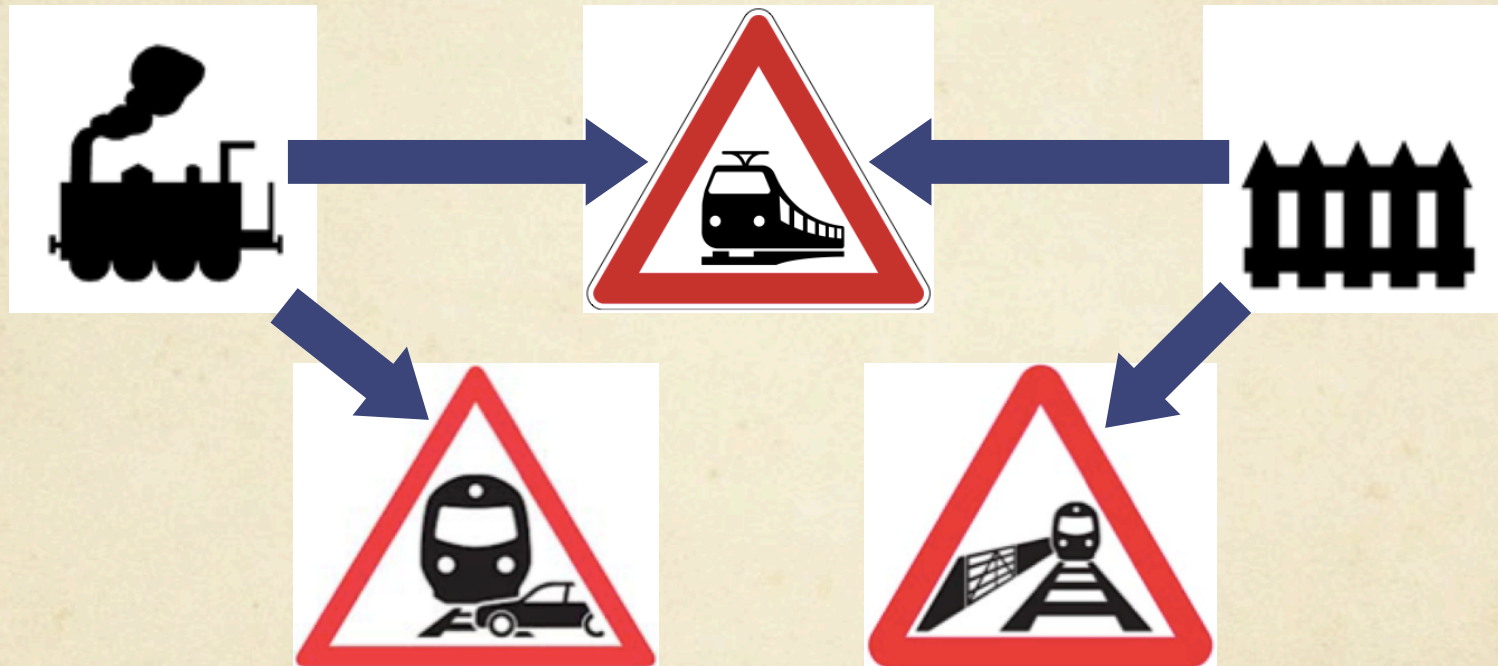


“Level crossing” signs proposals analysis

Stefan Egger, IIIDre

“Level crossings”-signs study: Introduction

Having analysed information provided by the UN’s Level Crossings Group (LX) on proposed new signs to substitute A25 and A26a, and the introduction of a “Break Gate” sign,



- the following is believed to be necessary to be taken into account:

1 Road signs have to be learned

Road signs are not as self-explanatory to

- facilitate understanding of the intended meaning
- induce an intended driving action

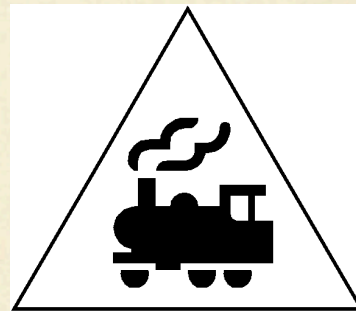
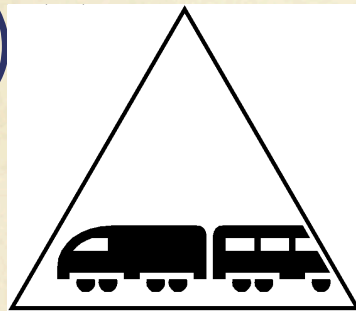
Substituting current signs' symbols with "modernised" symbols implies

- re-education of drivers (world wide), and monetary funds to do so
- confusion and possible misunderstanding, generating a potential danger

2 Modern trains are very different in appearance (from one another)

It is not recommended to pick a modern train symbol

- as even in one country many different trains are used, while in other countries, it might entirely unknown
- which differ by appearance and properties (such as speed)



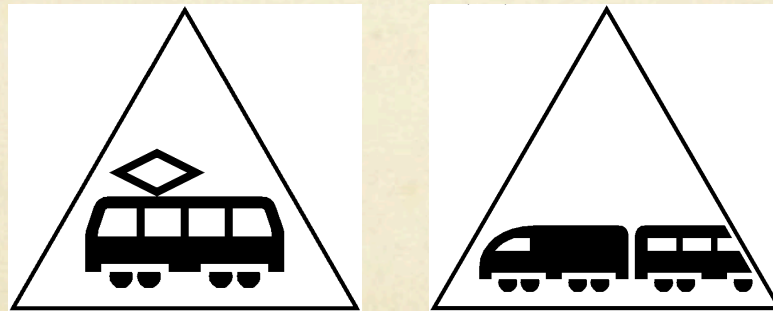
In symbol design, in such circumstances, an archaic model is chosen to represent the idea of – in this case – a steam train engine, which is most widely known to represent the concept of “train”

3 Emphasize the danger coming from one side

To do so, the train needs to be shown from the side.

Yet, if a modern train model is chosen,

- confusion with symbols such as “Tram”, “Bus” or “Truck” has to be avoided. Therefore the (modern) train would become a lengthy construct that resembles a thick horizontal line, not efficiently using given space.

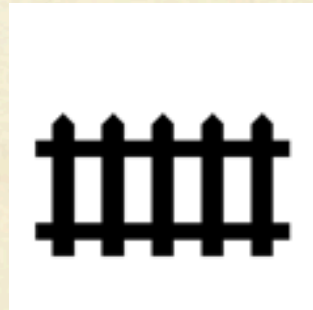


This does not support visual discrimination of a symbol, nor understanding as it could.

4 Three signs to be considered

Instead of A25 and A26b only, the “Break Gate” sign is to be into account as well for choice of symbols -

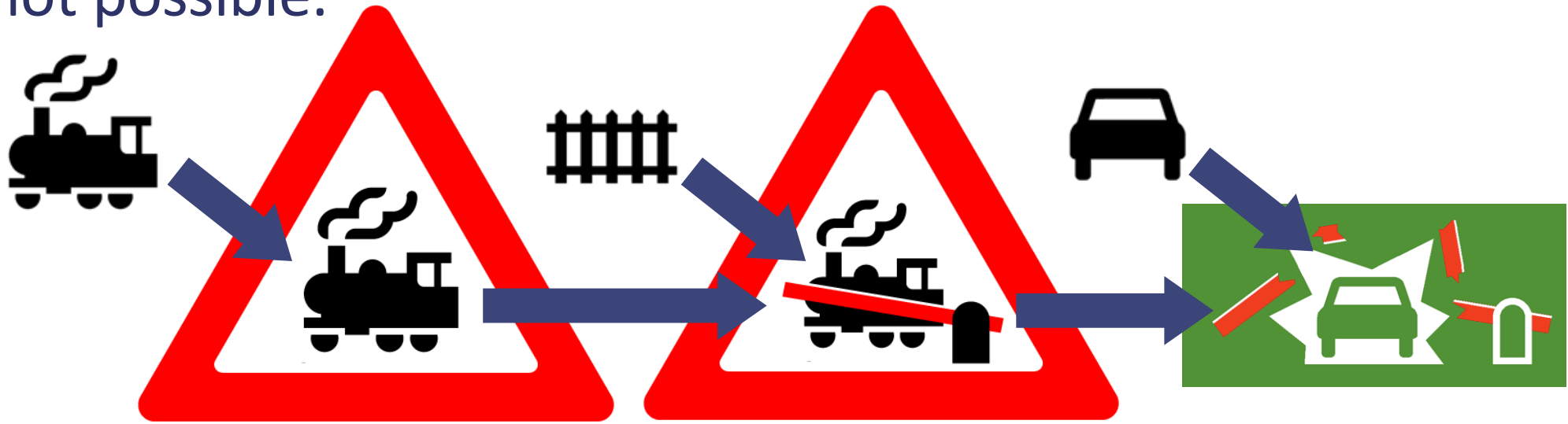
- as components of symbols in these three signs need to correspond, in order to support sign comprehension:



- “Steam train” (in A26a & possibly as envisioned for A25)
- “Gate” (,new model, in A25 and in “Break Gate” sign)
- “Passenger car” (showing the rear), as seen in road signs such as A8, A9, A24, C23 etc.

4 Three signs to be considered

If component “steam train” in A26a is not identically used in A25, A25’s envisioned improvement of comprehensibility is not possible.



If component “new gate” is not used in sign A25 and “Break gate”, the opportunity to support drivers’ comprehension is lost.

5 Testing required

As seen, attempts were made to enhance comprehension of A25 by introducing a “new gate” component, which still would not work without the additional use of “steam train”.

The use of “new gate” facilitated the creation of sign “Break gate”.

Never the less, no new sign bearing new symbol components should substitute an existing sign without mastering proven test methods.



5 Testing required

A proven test method to evaluate the degree of understanding of graphical symbols is ISO 9186 (see presentation "2 Methods for improving road signs / symbols / text (IIIDre)" on http://www.unece.org/trans/roadsafe/eg_road_signs_signals_05.html)

6 MOA Design Method

The symbols / signs shown in this presentation were designed following the criteria of the MOA Design Method, which makes information reliable to be discriminable (“legible”) from greater viewing distances than usual.

<https://stkegger.wordpress.com/moa-method/>

Thank you!

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The MOA Design Method
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