

hand, sorted each pack into four piles, the cards bearing each name being placed beside a label of that name. Each pack was sorted four times, the order being varied for different subjects to avoid trends due to practice or fatigue. The times for sorting were taken with a stop-watch. The labels were arranged alphabetically from left to right.

The results were scored by taking the mean of the last three sorting times for each pack. The mean time for the mixed pack was compared with the average of the other two; the difference (Table 1) was slight and completely insignificant, $P > 0.5$. Only five of the ten subjects took longer for the mixed pack.

Table 1. MEAN TIME IN SECONDS PER PACK OF 32 CARDS SORTED INTO FOUR CATEGORIES

Type-face group	Lower case	Upper case	Mixed
	48.7	49.3	49.4
Station name group	Harlow, etc.	Bungay, etc.	Mixed
	48.7	50.7	54.8

In the right-hand column, there were two different patterns of card to go in each category. In the other columns, there was only one pattern of card to each category.

As it is difficult to prove a negative result it was decided to confirm that the present situation was sufficiently sensitive to reveal the difference between the 1/1 and 1/2 response/stimuli condition when the two stimuli were most unlikely to have been associated with the same response prior to the experiment. Accordingly, three more packs were prepared; this time all the names were in upper case typescript, one pack having the original four names, a second pack having another group of four six-letter town names: Bungay, Cromer, Potton and Woburn, while the third pack had four cards each of the Harlow, Roydon, Slough, Welwyn group and four cards each of the new set of names. For each of the four points where a pile was to be placed there were two labels, one from the Harlow group and the other from the Bungay set, both being arranged alphabetically from left to right. When sorting the mixed pack the subjects placed Harlow and Bungay cards on the same pile and similarly with the other three pairs. The same procedure was adopted as before. Five subjects were tested, and in each case the mean time for the mixed pack was larger than the average of the other two. This difference was significantly larger ($P = 0.02$) than that found in the previous experiment with upper and lower case lettering.

Thus it seems likely that with extremely high degrees of practice even the difference between one and two stimuli per response becomes reduced effectively to zero.

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MISCELLANEOUS

An Easily Made Solvent Trough for Use in Descending Paper Chromatography

It is usual to make solvent troughs from sealed lengths of glass tubing in which the opening for the papers is cut¹, ground^{2,3}, or pulled out of heat-softened glass⁴. These methods are difficult and

usually involve many fractures. Troughs have also been made from stainless steel^{5,6} and from pressed sheet metal coated with resistant enamel⁷, but these are not easy to make and are relatively costly, especially for workers in areas where financial grants are meagre and materials and apparatus difficult to obtain.

A simple trough, however, is easily made from glass rod and medium- or heavy-gauge polythene sheet. The size can be adjusted to suit the tanks in use.

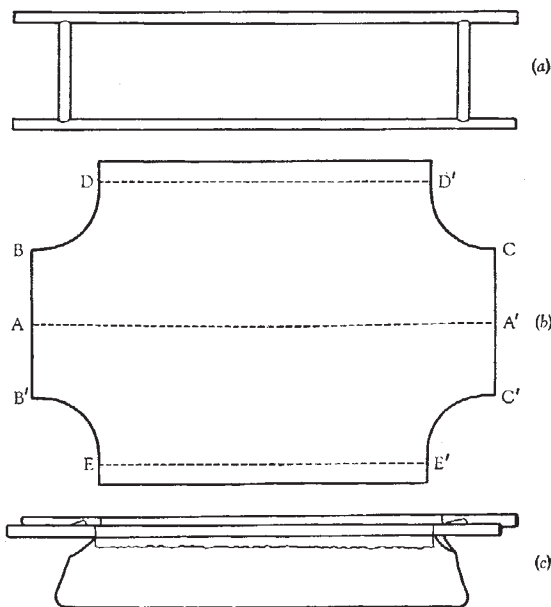


Fig. 1. a, Framework of glass rod; b, pattern for cutting polythene sheet; c, completed trough

The framework (Fig. 1a) is made from pieces of glass rod cut to size and cemented together with 'Araldite' adhesive. The diameter of the rod used will depend on the size of the trough and the amount of solvent it is to hold. The main part of the trough is cut out of polythene sheeting according to the pattern given in Fig. 1b. The sheet is folded along the line AA' and each end is heat sealed by clamping the two sides (for example, AB and AB') between two pieces of wood and playing a flame over the free edges. The sheet is then folded along the lines DD' and EE' . These edges are folded outwards over the glass framework rods, turned under and heat-sealed to the main body of the trough by gently heating with a flame and pressing between two pieces of wood. The resulting trough (Fig. 1c) is light, strong and of a large capacity. It can be used for most descending paper chromatographic work.

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