

Audience design for message form: Do speakers choose word orders that help their listeners?

Do speakers produce utterances that accommodate their listeners' communication needs? Audience design (AD) is controversial in theories of language processing, with disagreement over the automaticity of listener-adjustments, and how these adjustments come about (e.g., Clark, 1992; Horton & Gerrig, 2005; Horton & Keysar, 1996). The research focus has been on AD in message content (*what* speakers say; e.g., Isaacs & Clark, 1987); evidence for AD in message form (*how* speakers say something) is limited and mixed. For example, there is controversy over whether speakers systematically avoid ambiguities (Haywood et al., 2005; Kraljic & Brennan, 2005), or syntactically “package” information in a way that would be easy to understand (Brown & Dell, 1987; Lockridge & Brennan, 2002). Our experiments investigated audience design for word order. Researchers have considered this (e.g., Oller & Sales, 1969), but not in contexts where real addressees had genuine communication needs.

Pairs of participants played a communication game in which a Director described coloured, patterned shapes (e.g., *dotted orange star*, *striped purple square*) to a Matcher, whose job was to select corresponding picture cards from a box and place them on a grid. Cards were organised in the Matcher's box using index card dividers. In one box, they were grouped by pattern (all the dotted cards together, all the striped cards together, etc). Behind each patterned divider, smaller dividers grouped the cards by colour (all the dotted orange cards together, then all the dotted purple cards, etc). A “pattern-first” description (*dotted orange star*) will be easy for the Matcher to act upon, because it can be incrementally mapped onto the box structure. A “colour-first” description (*orange dotted star*) would be somewhat harder, because the Matcher has to put the colour information “on hold” while he searches first for the dotted cards, and then the dotted orange cards. We compared descriptions produced before and after Directors had learned about the box structure, by virtue of playing the Matcher's role for themselves.

In Experiment 1, Directors tailored word order to Matchers' needs, producing more pattern-first descriptions for a box organised by pattern, and more colour-first descriptions for a box organised by colour ($p < .01$). Experiment 2 confirmed that this effect reflected audience design, by comparing descriptions produced during different tasks. Directors produced descriptions that could be straightforwardly mapped onto the box in a “selecting task” (described above, where word order had consequences for the Matcher), but not in a “checking task” (where word order had no consequences for comprehension; Directors simply re-described cards so that Matchers could “check they are in the right grid spaces”; $ps < .01$). Experiment 3 extended these findings to syntactic choice, showing that speakers produce dispreferred structures (e.g., *square that's striped and purple*) when this kind of description can be incrementally mapped onto the Matcher's box ($p < .01$).

Taken together, these findings suggest that speakers can and do attend to audience design for at least one aspect of message form, namely word order. Implications for theories of language processing will be discussed.

References

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