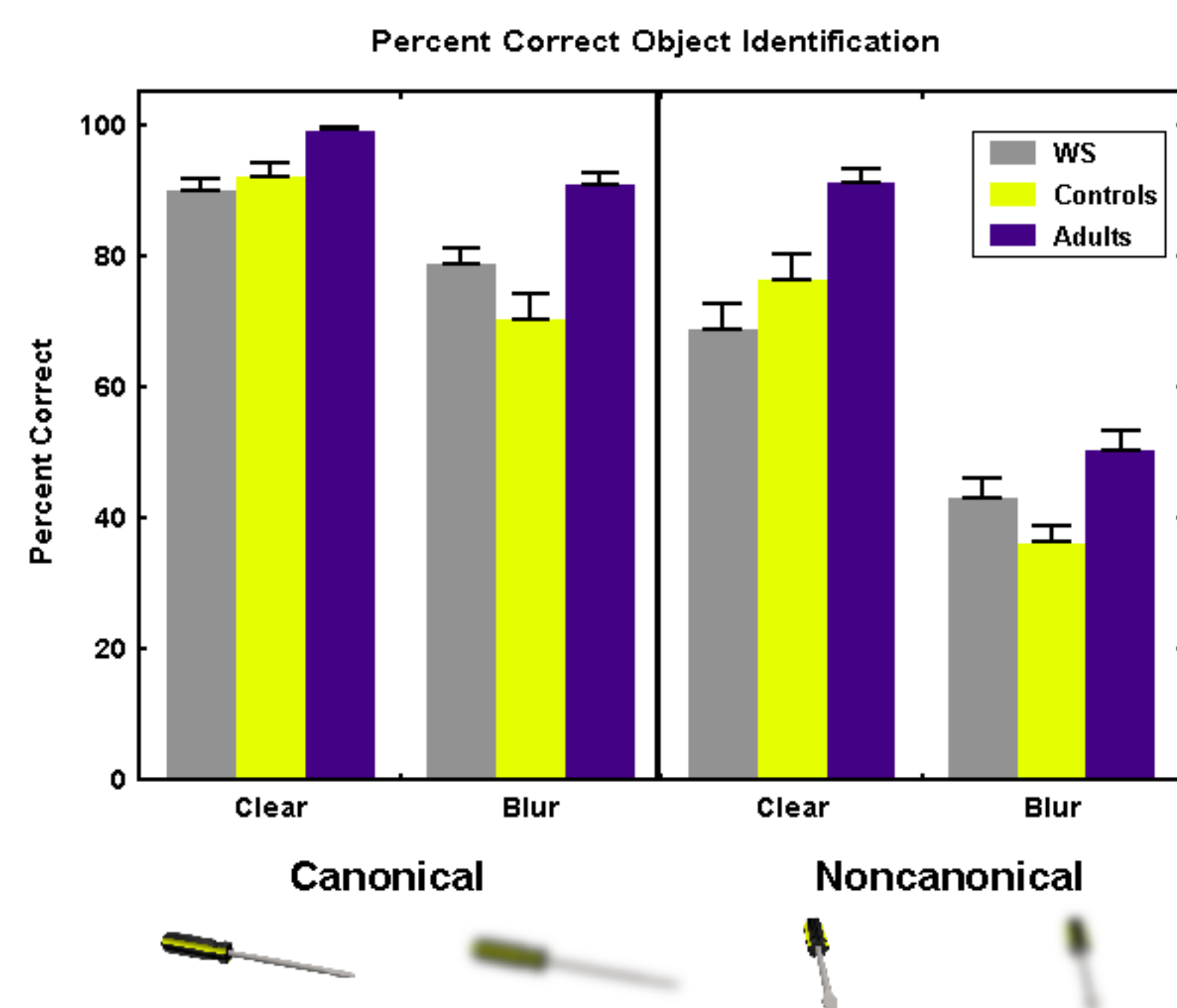


RESULTS

OVERALL PERFORMANCE

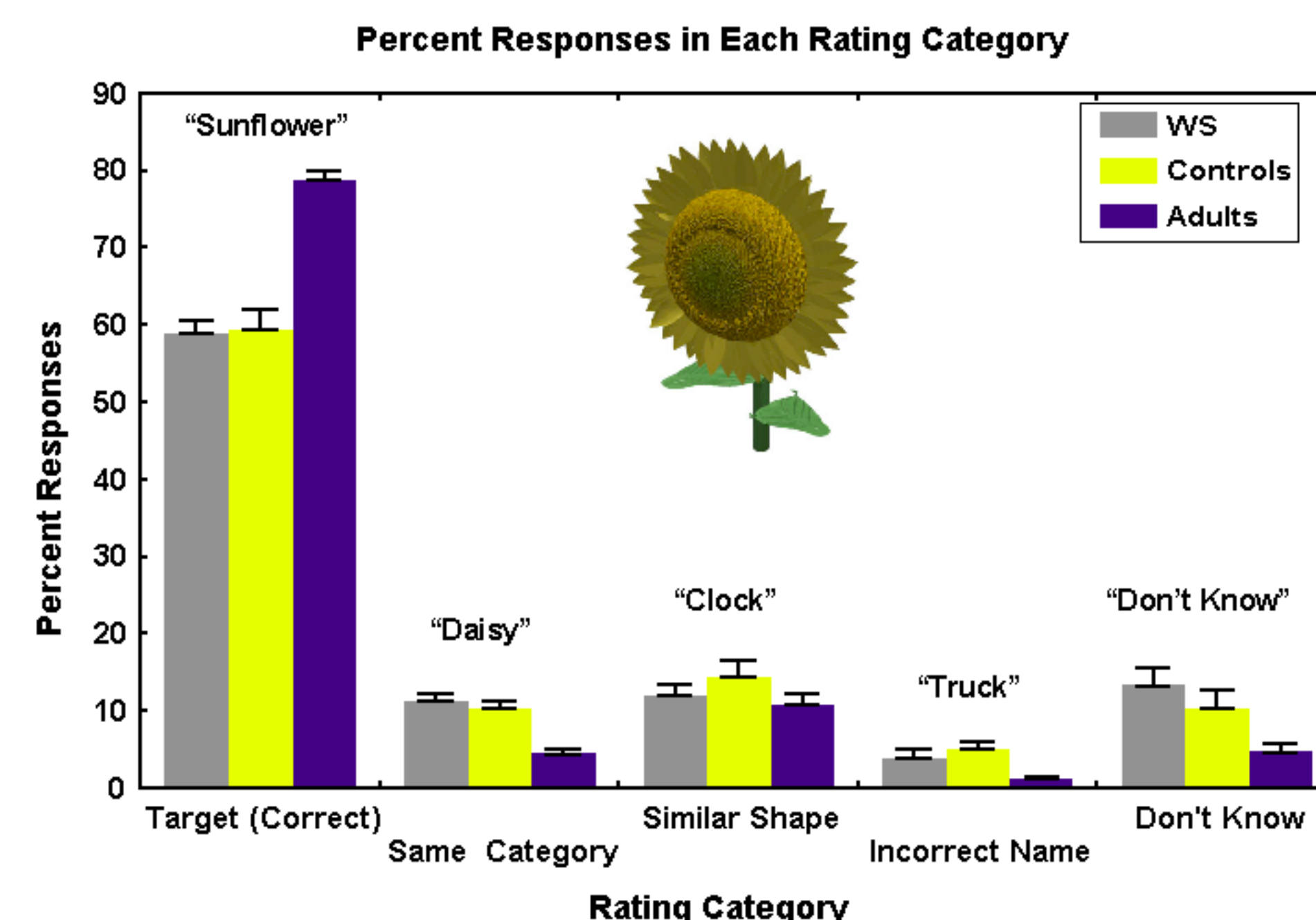
Percents correct (producing the target name) are shown in Figure 1 over Group, View type (Canonical vs. Non-canonical) and Clarity (Clear vs. Blur). All groups showed effects of View type, with Canonical images easier to name than Non-Canonical images, and Clarity, with Clear images easier to name than Blurred images. Adults were better overall at naming than were the children.

A mixed model ANOVA of these data revealed main effects of View type (Canonical vs. Non-canonical), $F(1,33) = 360.7$; Clarity (Clear vs. Blur), $F(1,33) = 327.0$; and Group, $F(2,33) = 16.9$, all $p < .01$. A separate analysis conducted on the two groups of children showed no effect of Group ($F < 1$). Thus, children with Williams Syndrome performed at the same levels across the various image types as their mental age mates.



PERFORMANCE BY DIFFERENT RESPONSE CATEGORIES

In addition to target names, participants' responses in all other coding categories were compiled, and are shown in Figure 2 collapsed over Image type. As can be seen, the responses in different categories were roughly comparable across group, with the majority of responses falling into Related or Superordinate Category, and Similar Shape. The similarity of the distribution of responses over participant group most likely reflects similarity in the organization of the lexicon and retrieval mechanisms underlying object naming.



CONCLUSIONS

CHILDREN WITH WILLIAMS SYNDROME DID NOT SHOW A DEFICIT IN OBJECT IDENTIFICATION, AS INDEXED BY NAMING, RELATIVE TO CONTROL CHILDREN MATCHED FOR MENTAL AGE

ALL GROUPS OF PARTICIPANTS SHOWED EFFECTS OF IMAGE VIEWPOINT AND CLARITY: CANONICAL VIEWS OF OBJECTS WERE MORE ACCURATELY NAMED THAN NON-CANONICAL, AND CLEAR IMAGES WERE MORE ACCURATELY NAMED THAN BLURRED ONES.

THE NAMES PRODUCED WERE PREDOMINANTLY THE CORRECT TARGET NAMES. THE MAJORITY OF NON-TARGET NAMES WERE THOSE FOR RELATED OR SUPERORDINATE CATEGORIES, OR FOR OBJECTS HAVING A SIMILAR SHAPE TO THE SEEN IMAGE.

WE CONCLUDE THAT THE SPATIAL DEFICIT SHOWN IN WILLIAMS SYNDROME IS NOT GLOBAL. IN PARTICULAR, SPATIAL FUNCTIONS THOUGHT TO BE CARRIED BY THE VENTRAL STREAM -- SUCH AS OBJECT RECOGNITION-- MAY BE SELECTIVELY SPARED.

For further work from our project on Williams Syndrome, see:

Hoffman, Landau, & Pagani (2000) Eye-movements during block construction tasks in Williams Syndrome. Paper presented at the 39th Annual Meeting of the Psychonomics Society, Dallas, TX, November, 1998. Manuscript in preparation.

Landau, B., & Zukowski, A. (2000) Objects, motions, and paths: Spatial language of children with Williams Syndrome. Invited submission for Special Issue, Developmental Neuropsychology.

Jordan, H., Reiss, J., Hoffman, J., & Landau, B. (2000) Preserved perception of biological motion in the face of severely impaired spatial cognition: Evidence from Williams Syndrome. Paper presented at the 7th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.

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