The role of attention in learning

Andres Quiñones

March 07, 2023

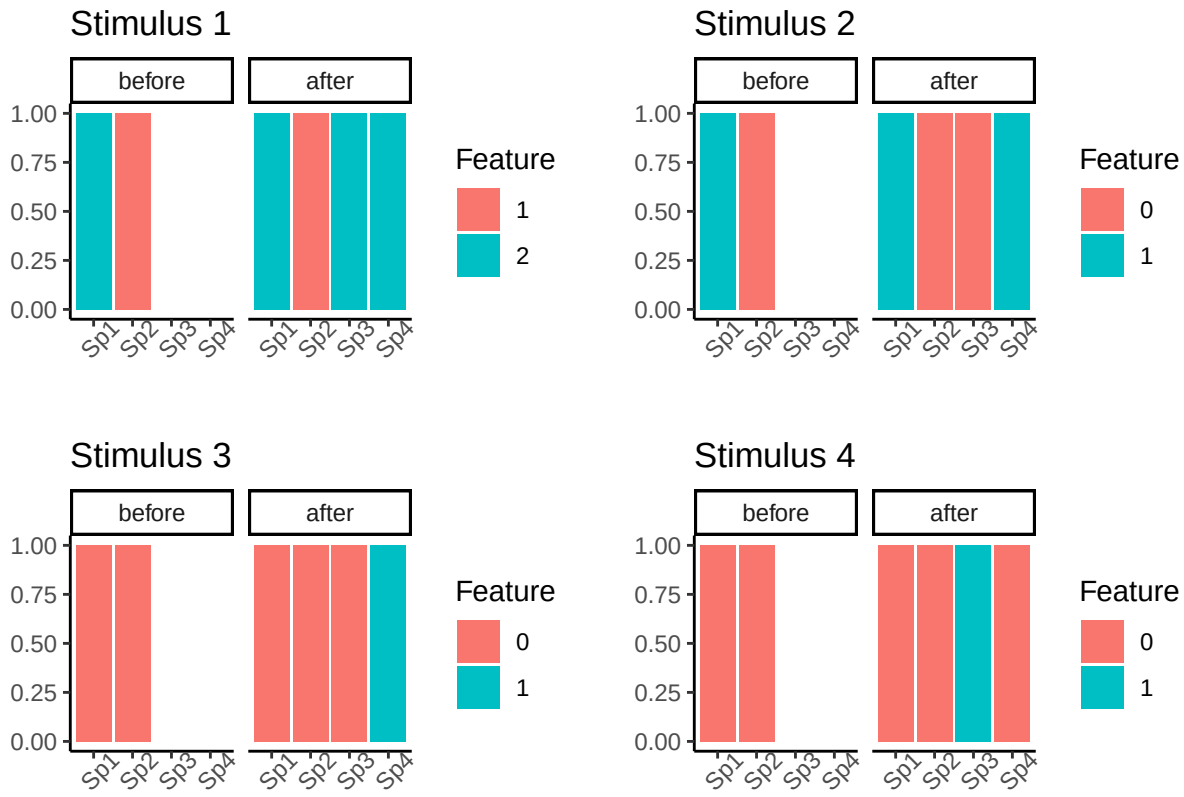


Figure 1: Frequency of features of the two different stimuli in the two different objects for the scenario with partial information for two stimulus.

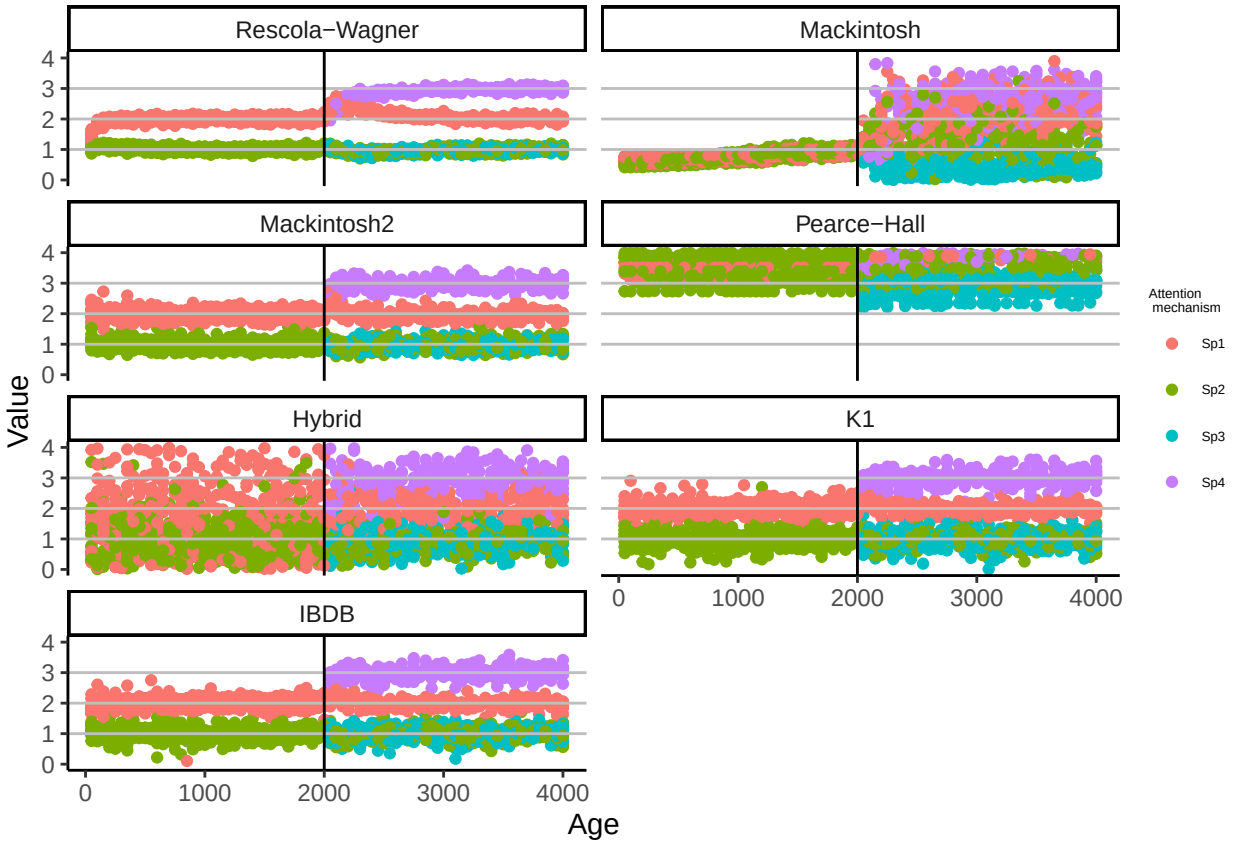
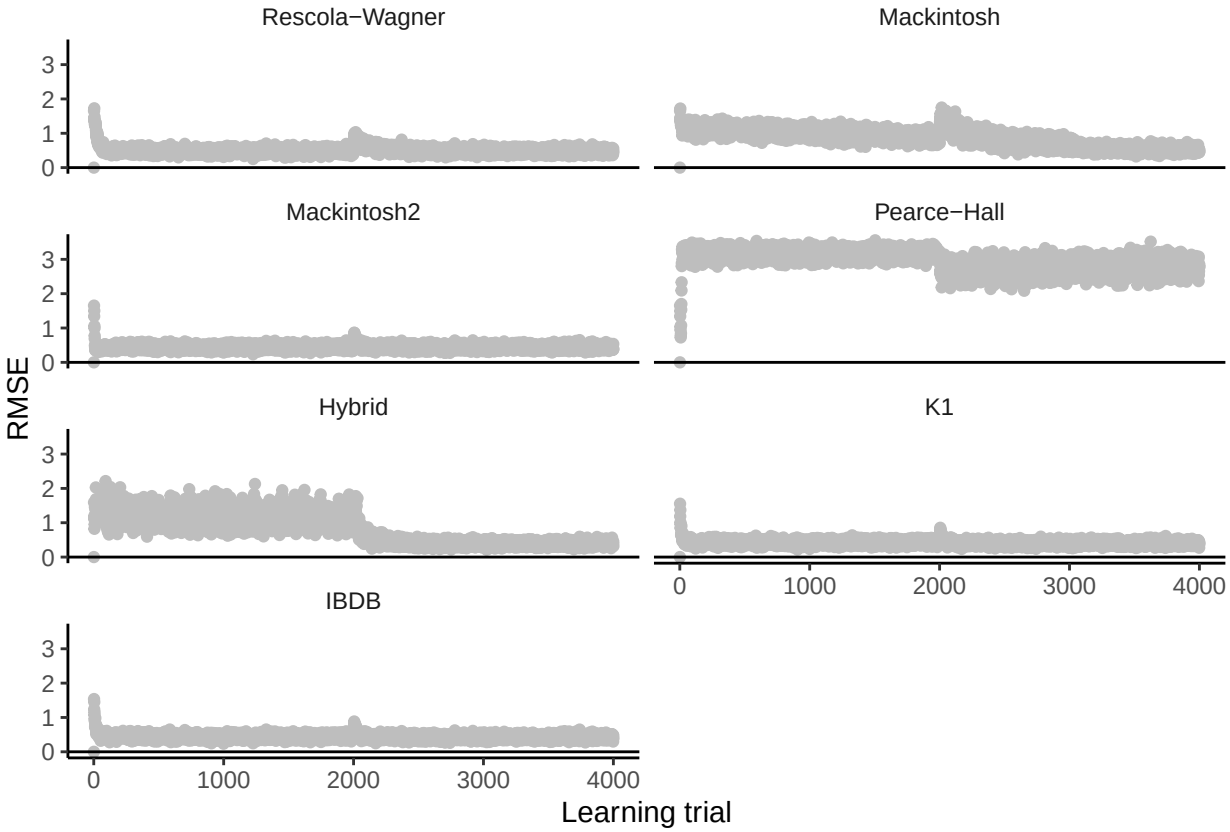


Figure 2: Dynamics of value estimation for the two objects (a) and performance (b) in the scenario with partial information in both stimuli dimensions. Grey lines in a correspond to the real value of the two objects.Grey line in b correspond to the expected proportion of wrong choices given the exploration parameter au in the desicion making rule.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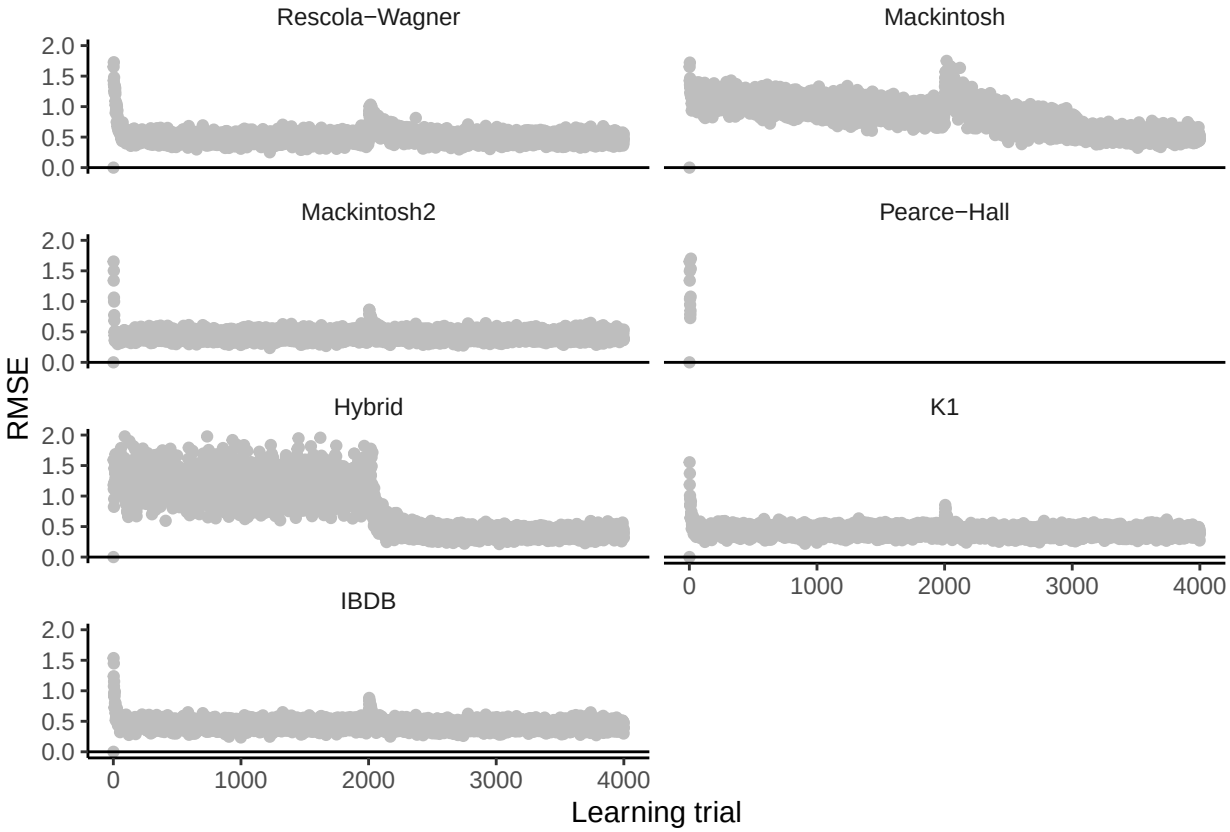
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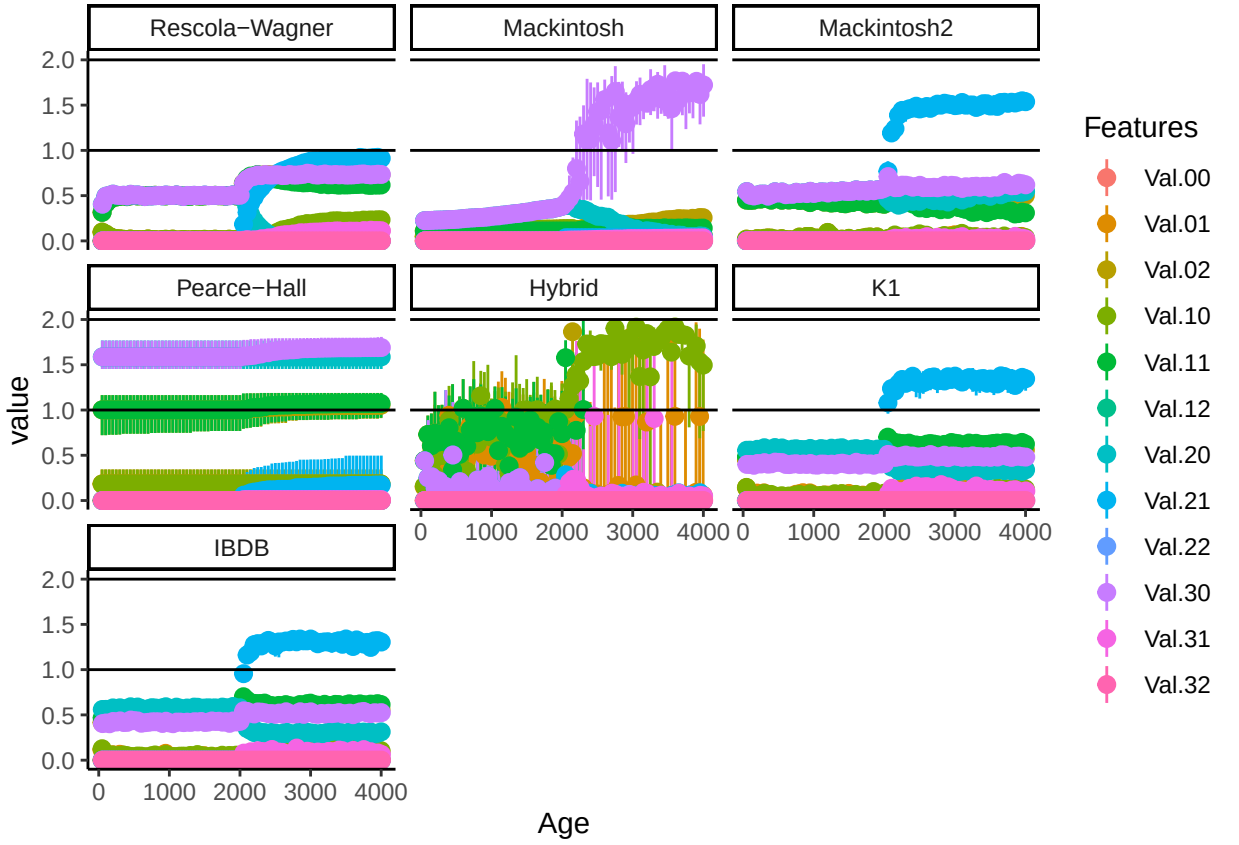
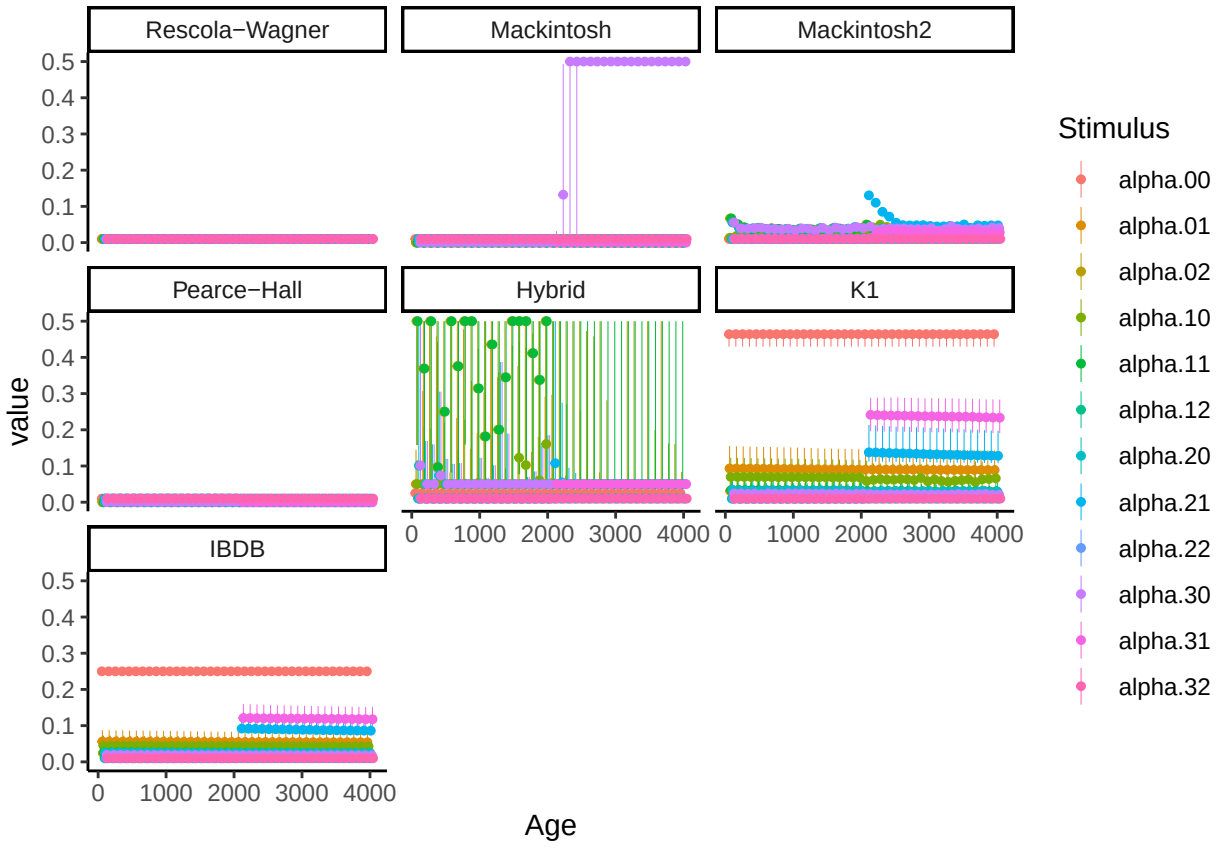


Figure 3: Dynamics of the values associated with the different features of the two stimuli dimensions for the full information scenario. In the legend the first number of the labels corresponds to the stimuli dimension index, and the second to the feature index. The black lines show the real value of the objects.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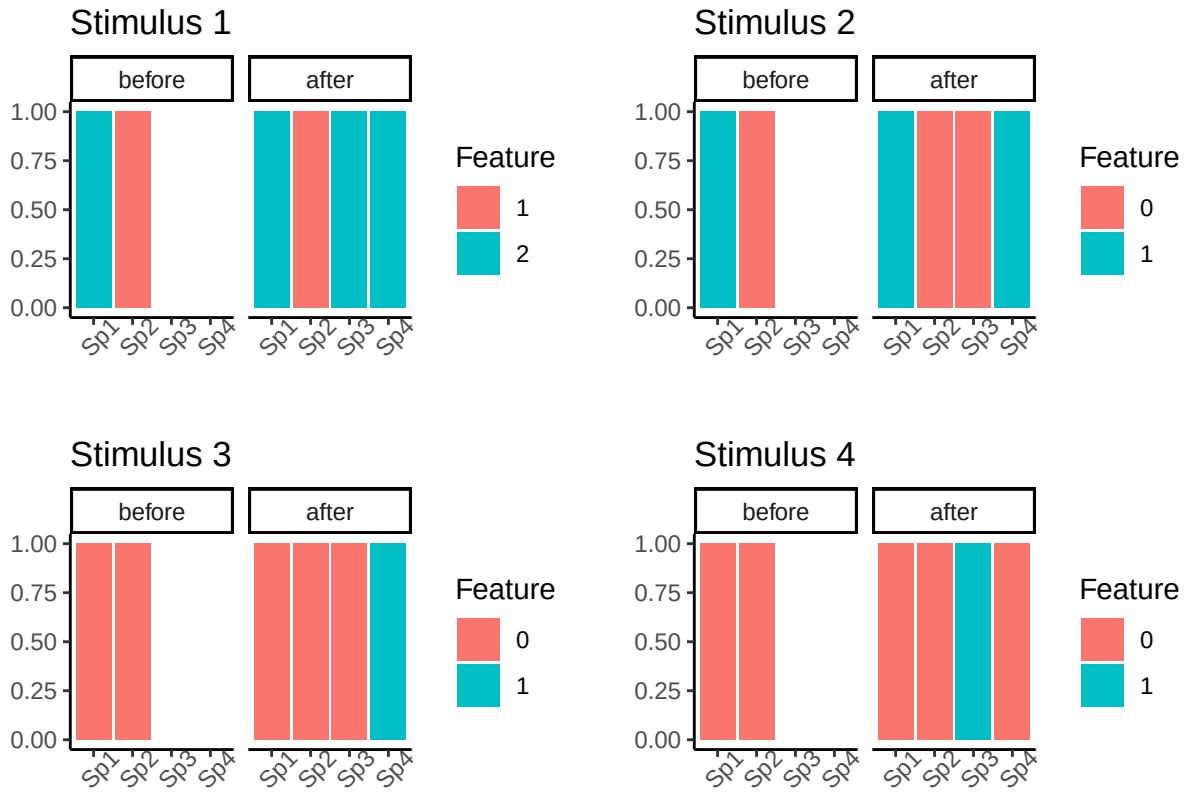

Figure 4: Frequency of features of the two different stimuli in the two different objects for the scenario with partial information for two stimulus.

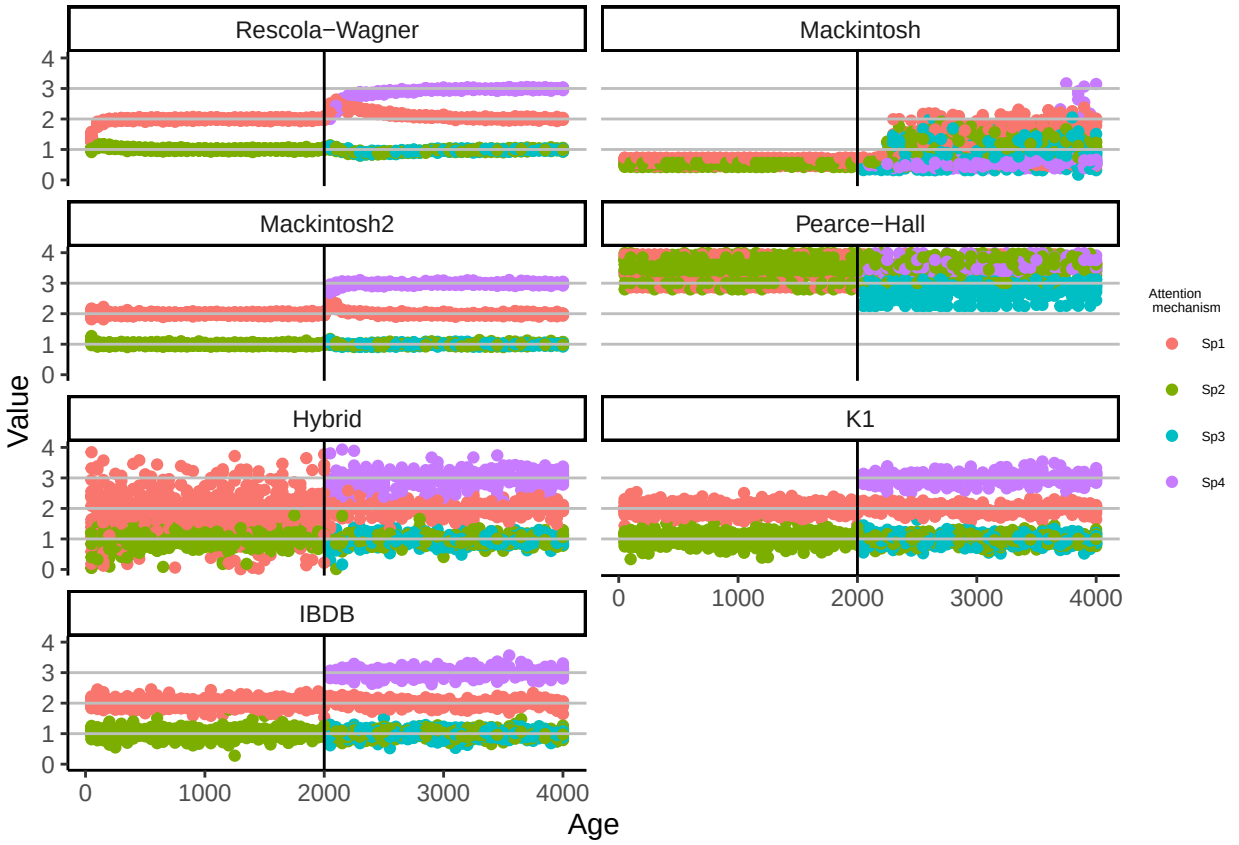

Figure 5: Dynamics of value estimation for the two objects (a) and performance (b) in the scenario with partial information in both stimuli dimensions. Grey lines in a correspond to the real value of the two objects.Grey line in b correspond to the expected proportion of wrong choices given the exploration parameter au in the desicion making rule.

```
{r} #  # expecValSp<-data.table(ObjSp=unique(rawData[,Species1]),
#                          value=c(0,2,1,1,3)) #  # rawData[,`:=`(valSp_1=
#               valSp_2=expecValSp[match(Species2,expecValSp[,ObjSp]),va
#  # rawData[,correctChoice:=fcase(valSp_1-valSp_2>0 && Choice
==1,1, #                                valSp_1-valSp_2>0 &&
Choice ==2,0, #                                   valSp_1-valSp_2<0
&& Choice ==2,1, #                                   valSp_1-valSp_2>0
&& Choice ==1,0)] #  #  #  #
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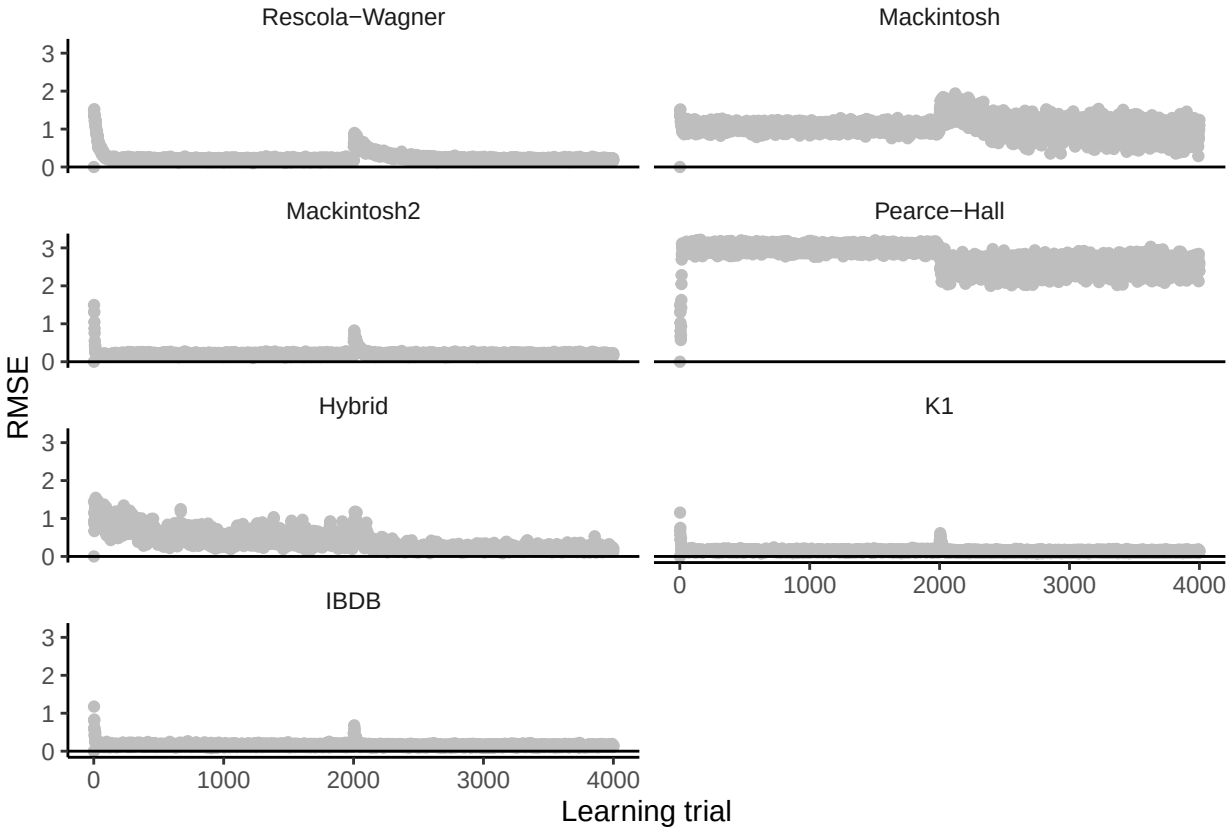

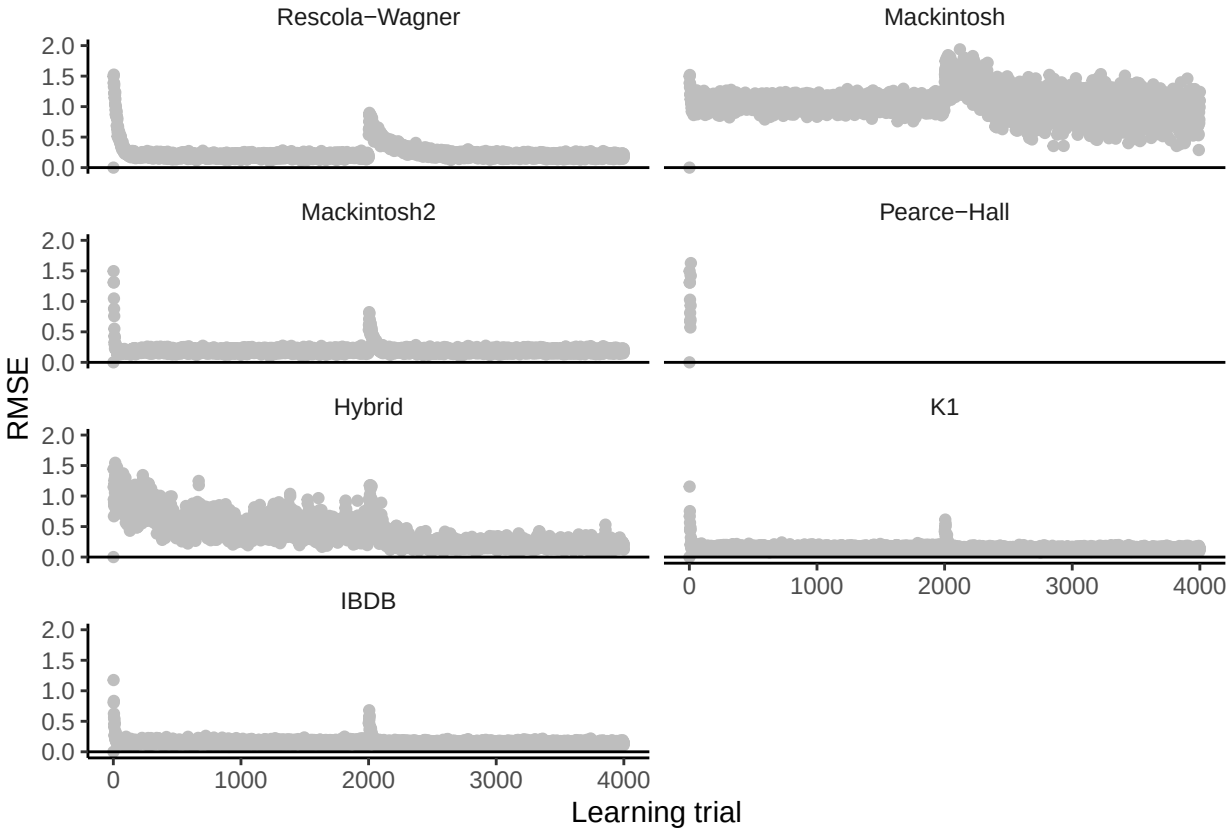
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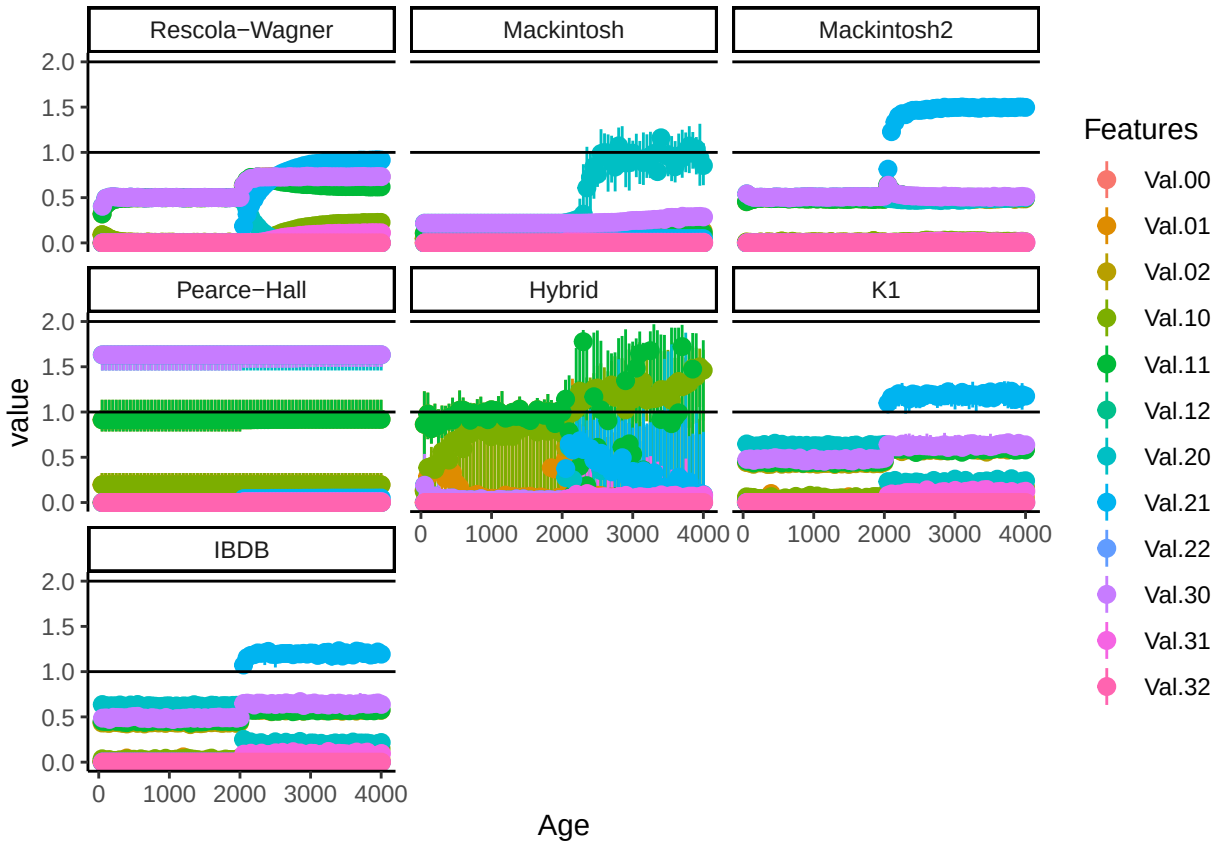
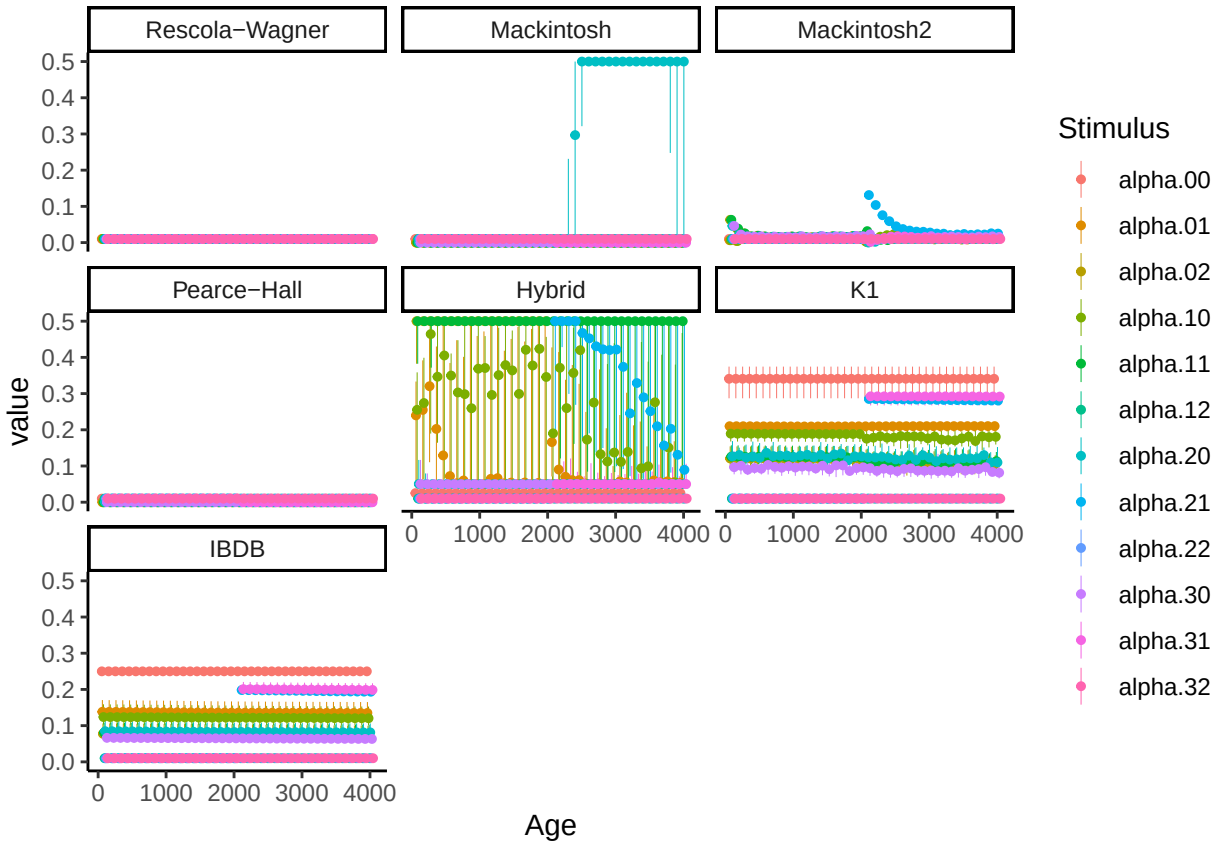


Figure 6: Dynamics of the values associated with the different features of the two stimuli dimensions for the full information scenario. In the legend the first number of the labels corresponds to the stimuli dimension index, and the second to the feature index. The black lines show the real value of the objects.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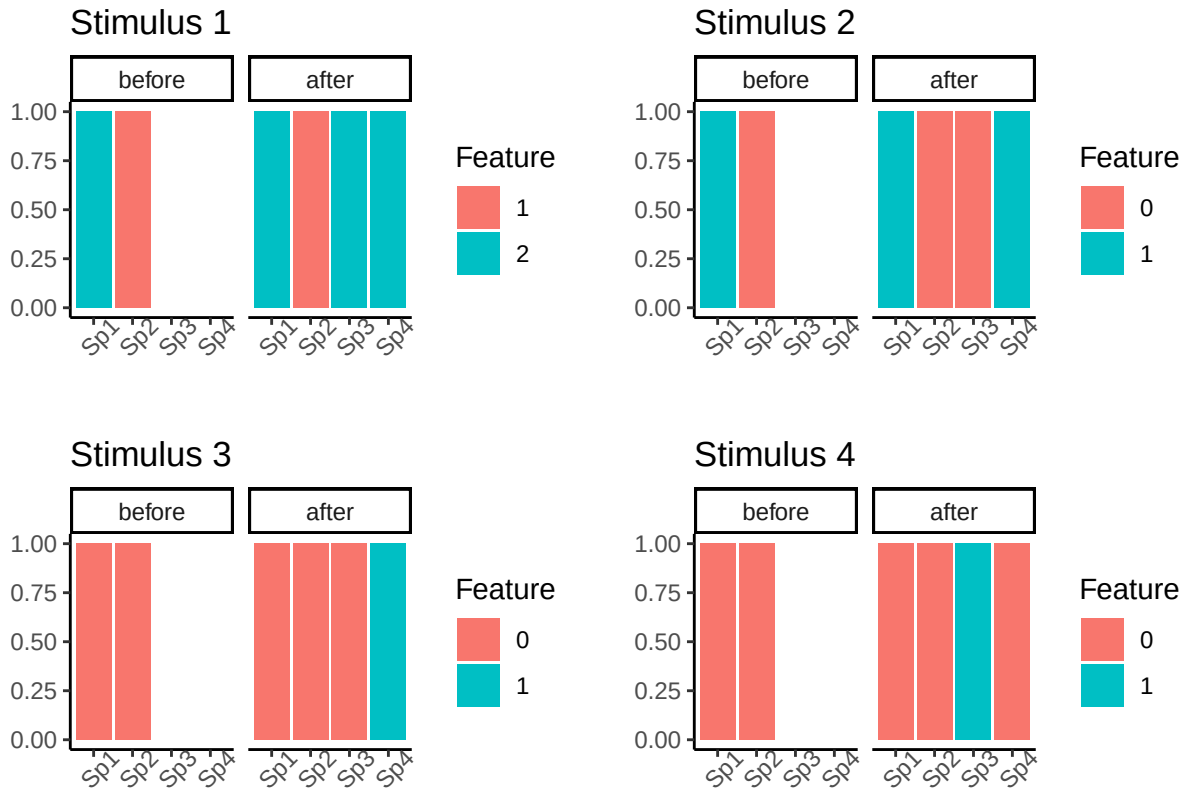


Figure 7: Frequency of features of the two different stimuli in the two different objects for the scenario with partial information for two stimulus.

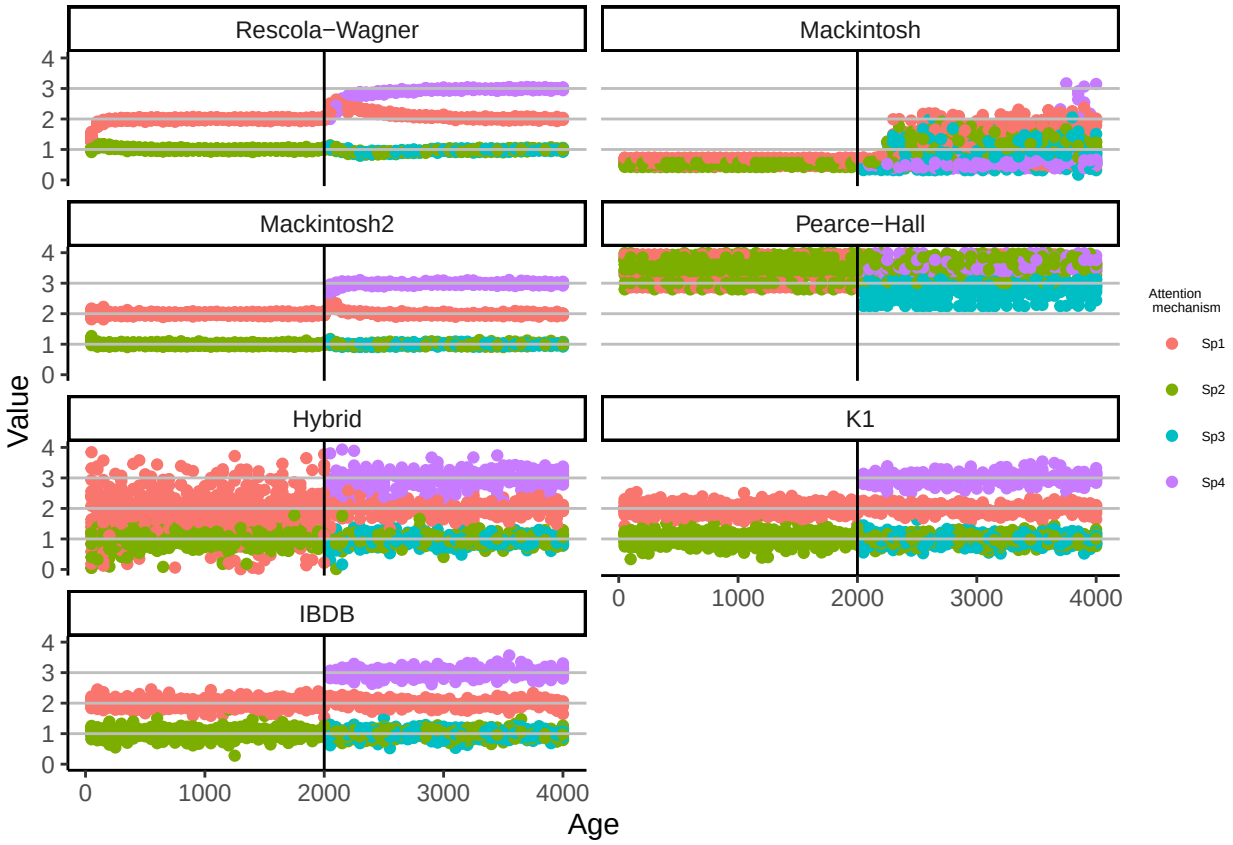
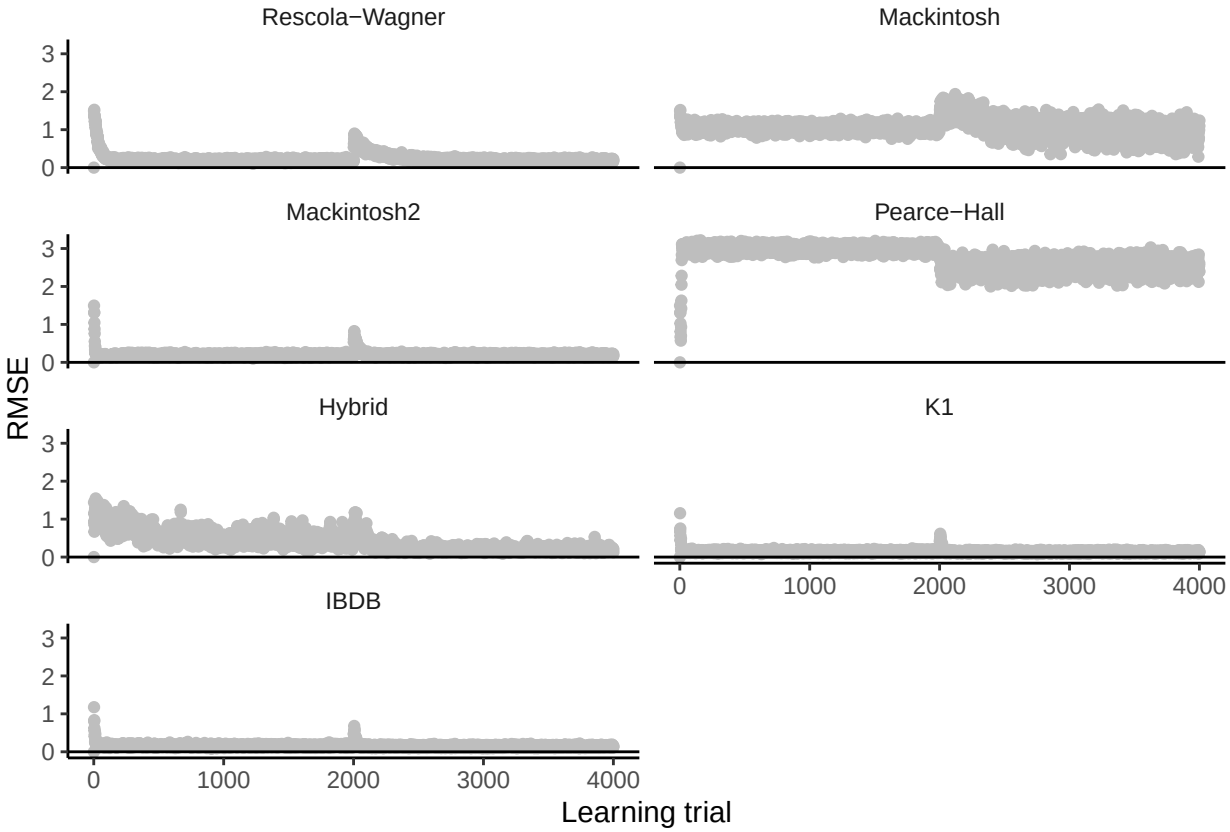


Figure 8: Dynamics of value estimation for the two objects (a) and performance (b) in the scenario with partial information in both stimuli dimensions. Grey lines in a correspond to the real value of the two objects.Grey line in b correspond to the expected proportion of wrong choices given the exploration parameter au in the desicion making rule.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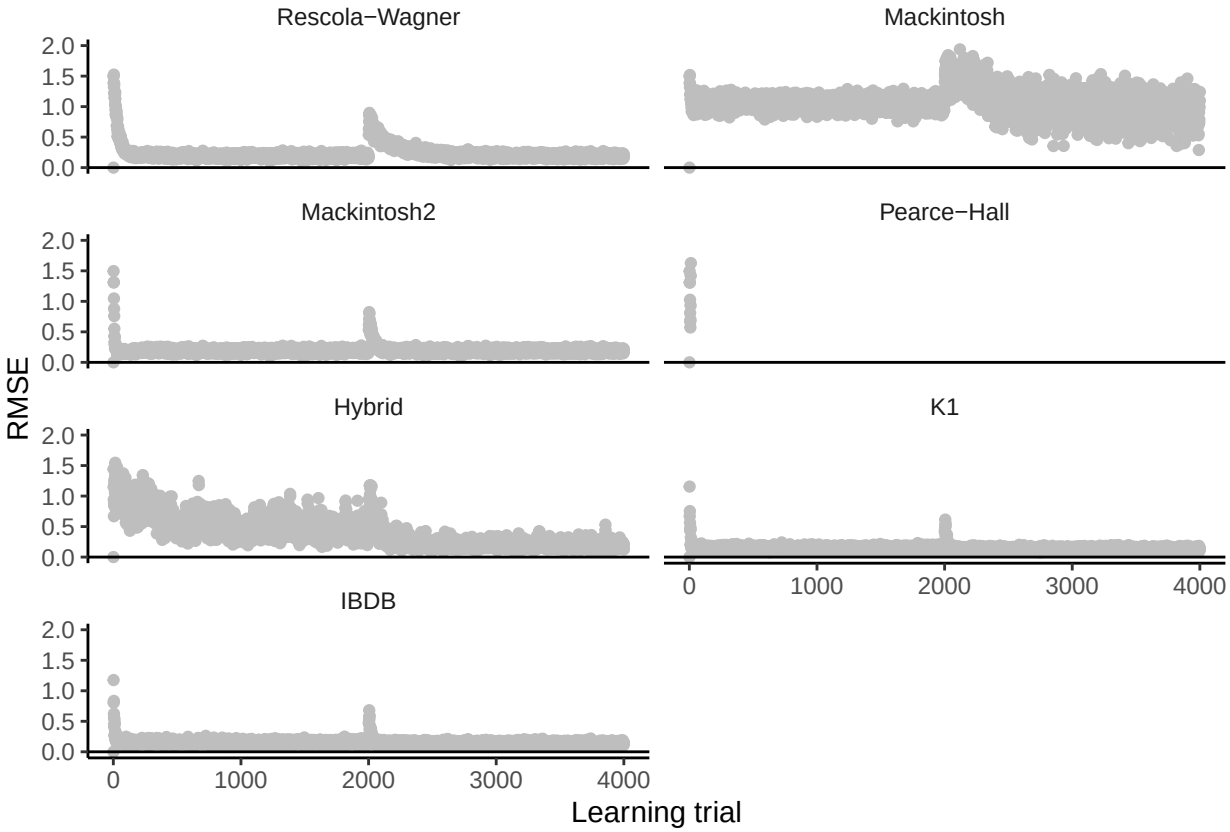
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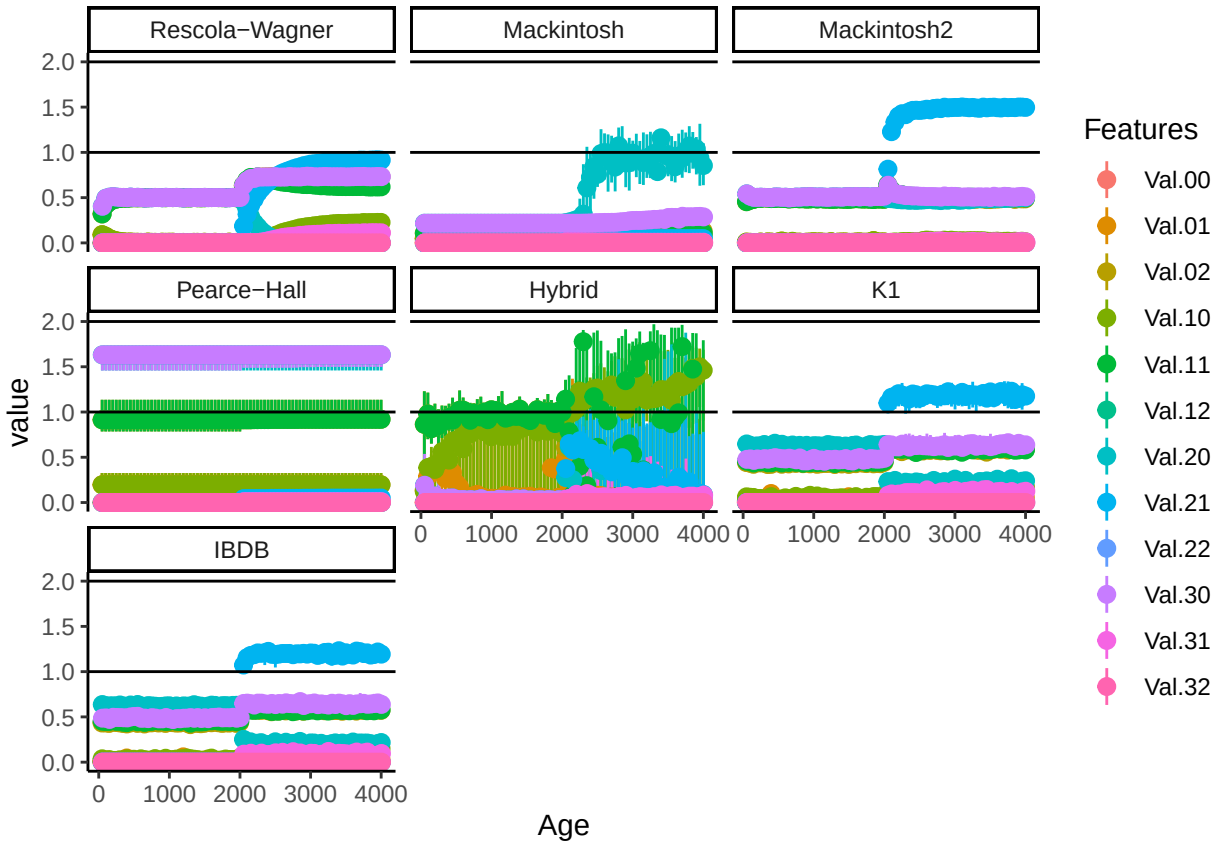
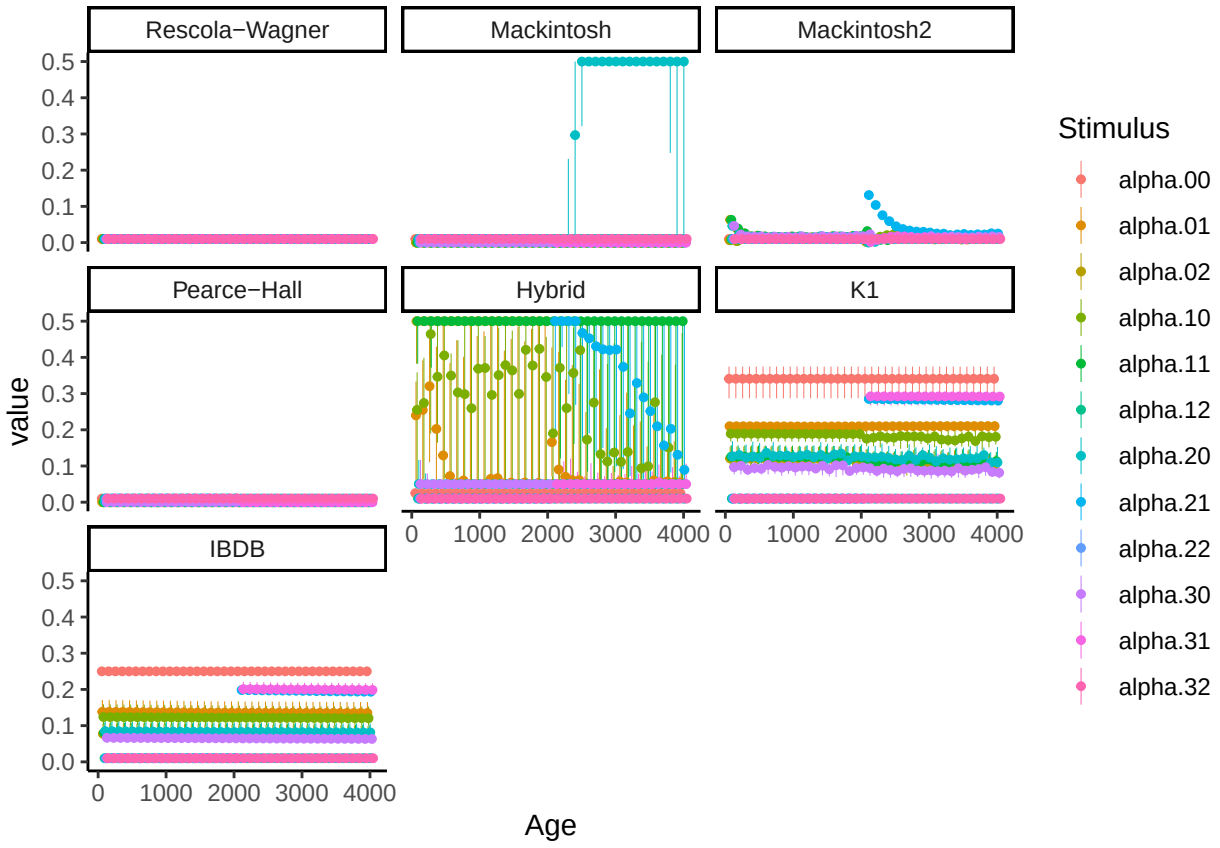


Figure 9: Dynamics of the values associated with the different features of the two stimuli dimensions for the full information scenario. In the legend the first number of the labels corresponds to the stimuli dimension index, and the second to the feature index. The black lines show the real value of the objects.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