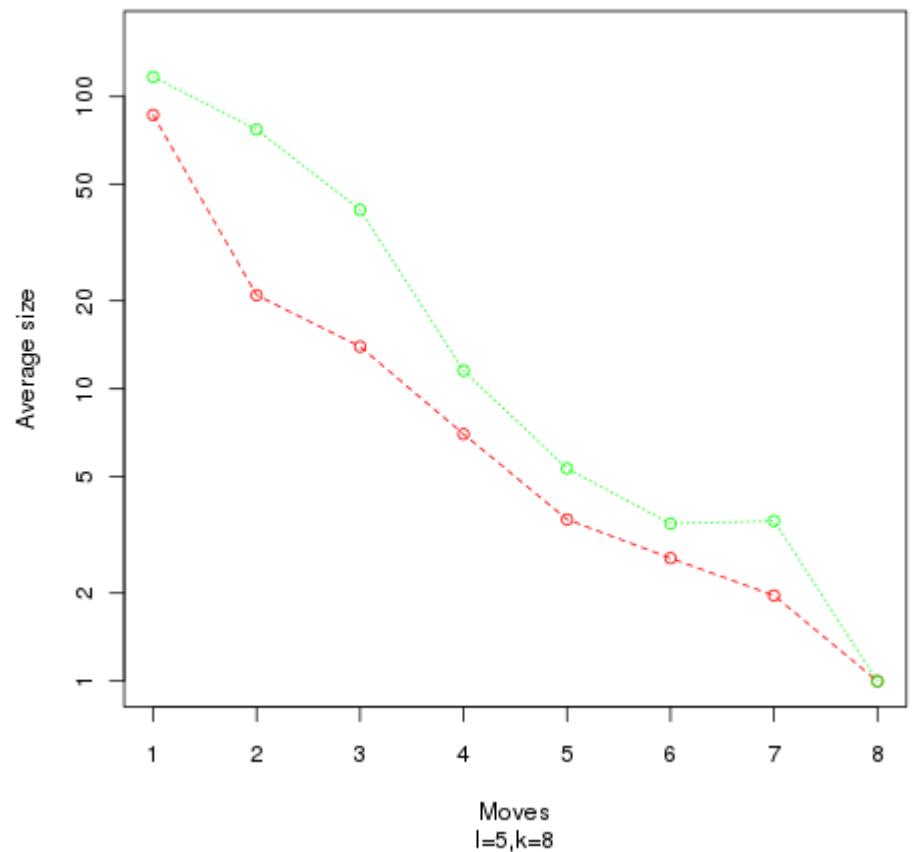
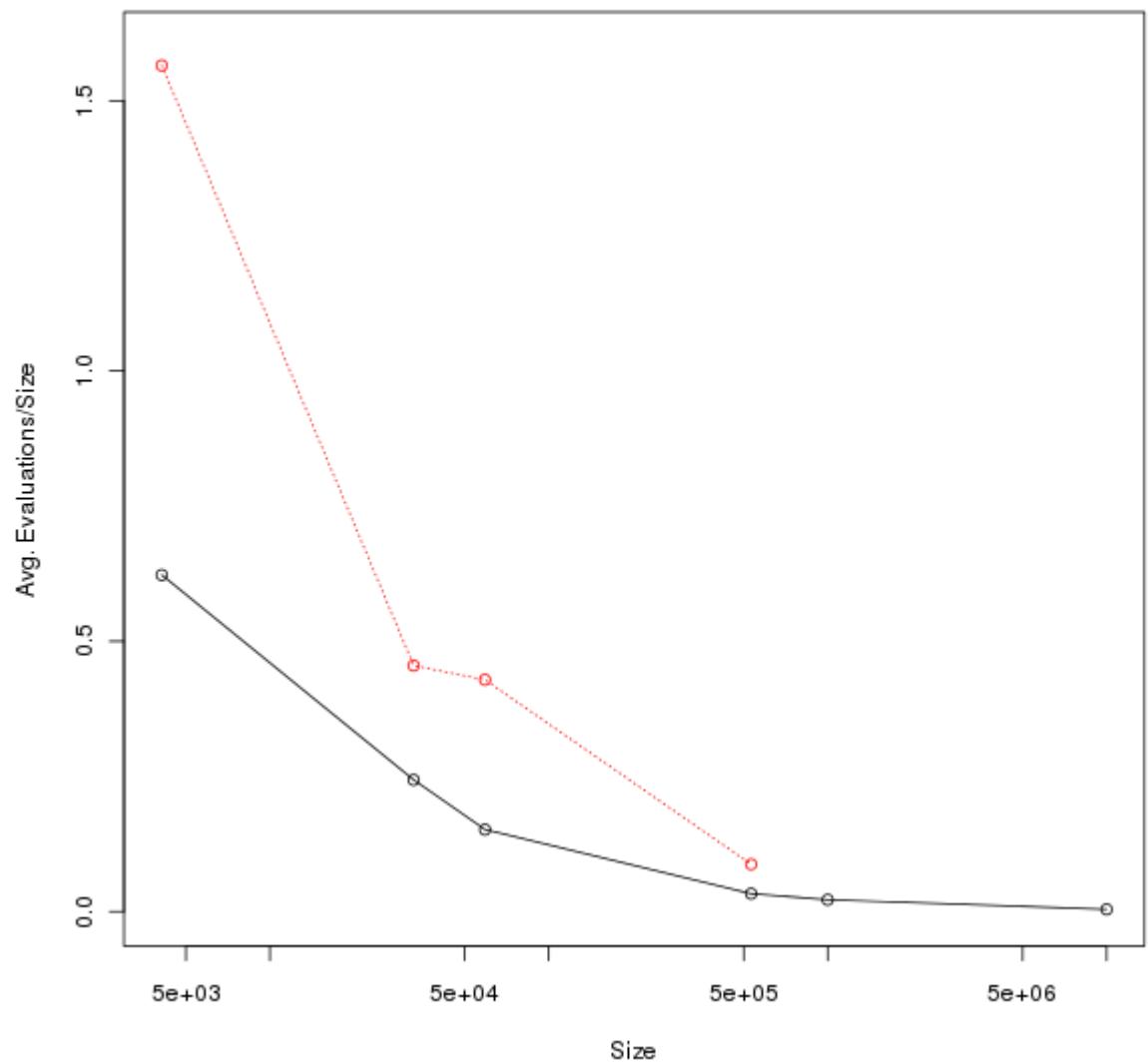


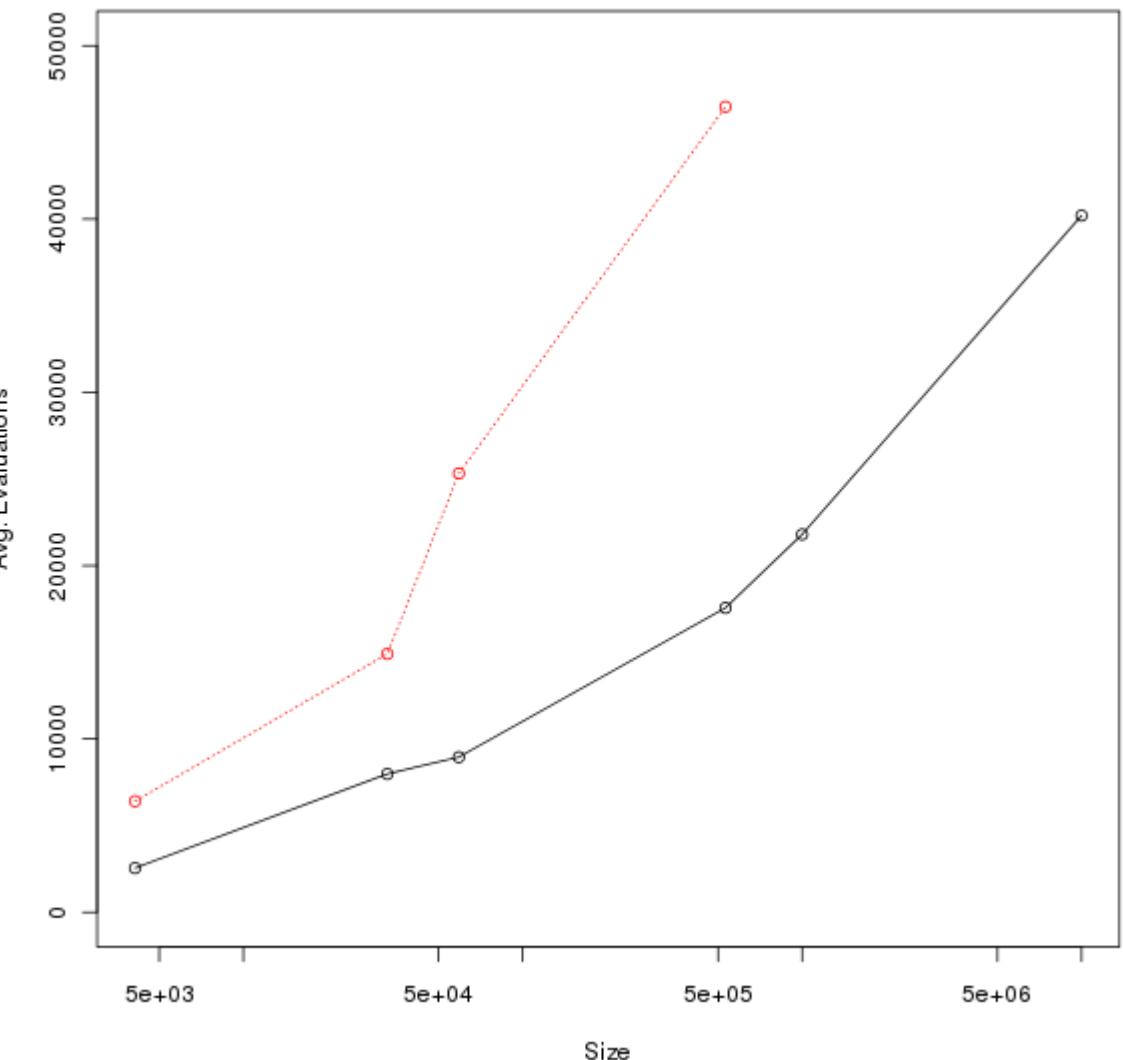
Actual Consistent Set Size



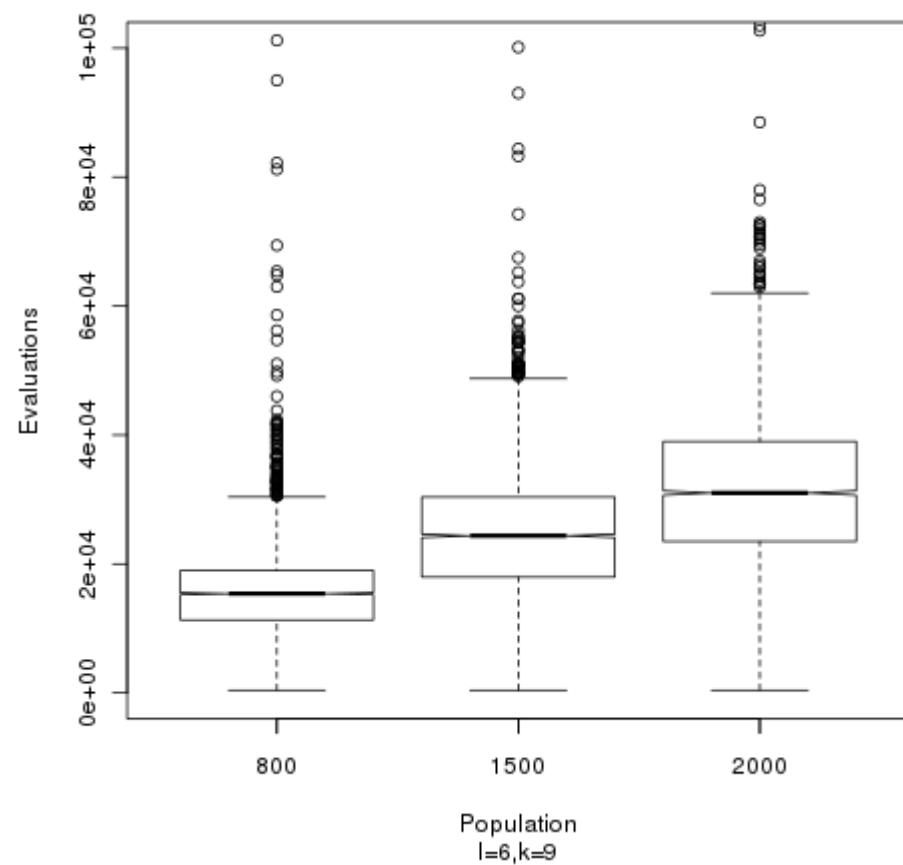
Proportion search space examined

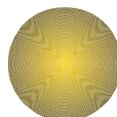
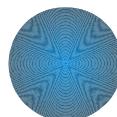
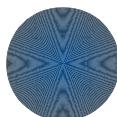
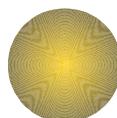
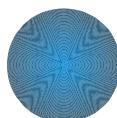
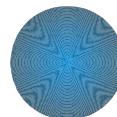
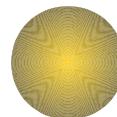


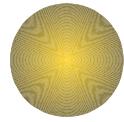
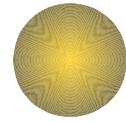
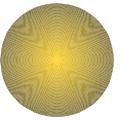
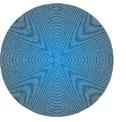
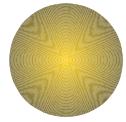
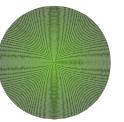
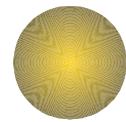
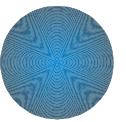
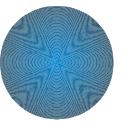
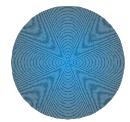
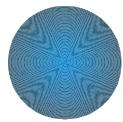
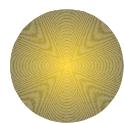
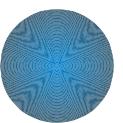
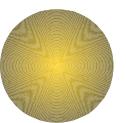
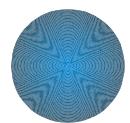
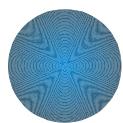
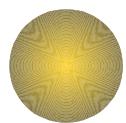
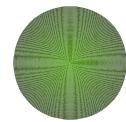
Evaluations needed

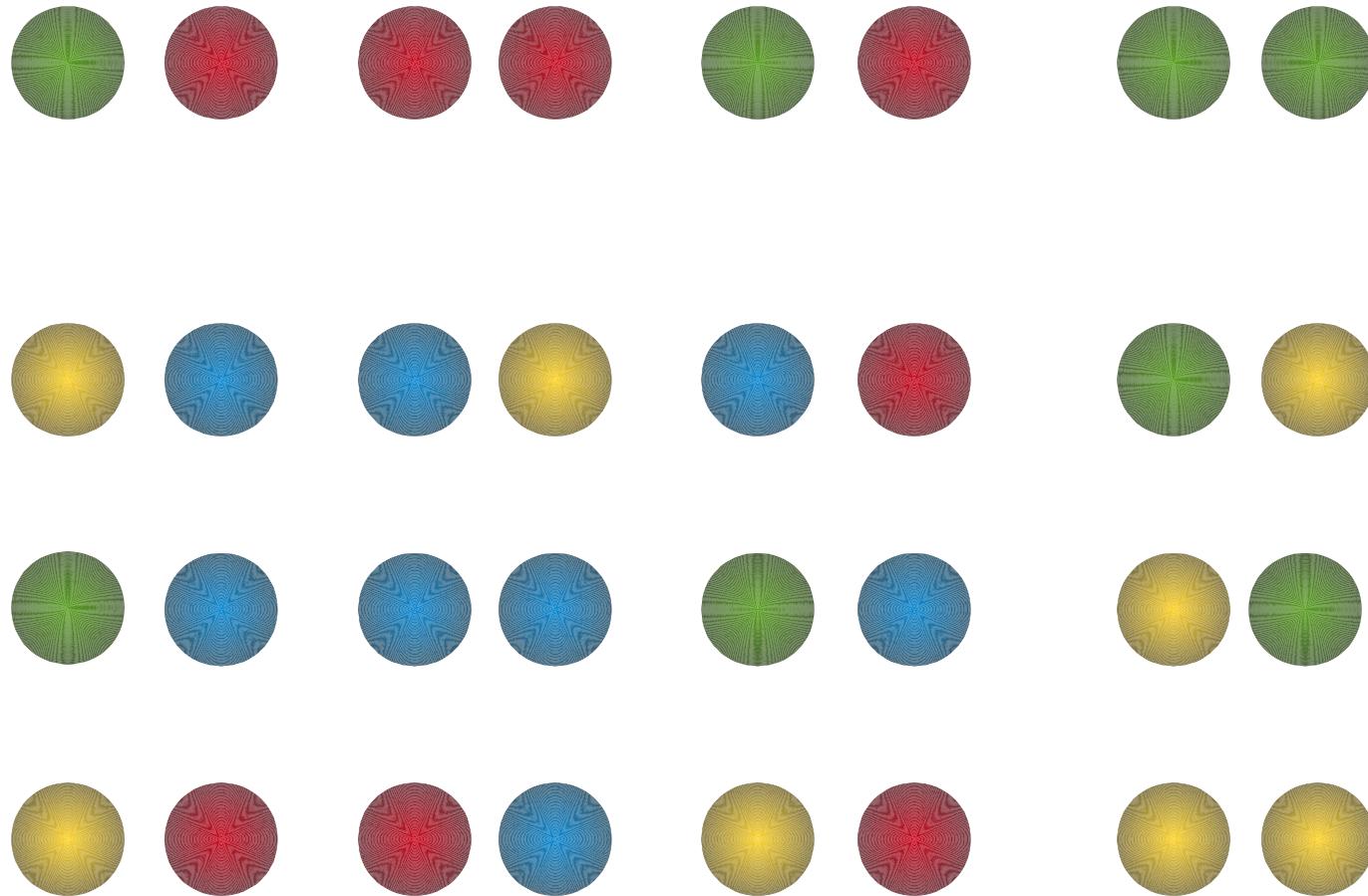


Evaluations vs. Population









(a) Mean number of guesses and the standard error of the mean for $\ell = 4, 5$, the quantities in parentheses indicate population and consistent set size (in the case of the previous results).

	$\ell = 4$	$\ell = 5$	
	$\kappa = 8$	$\kappa = 8$	$\kappa = 9$
Berghman et al.		5.618	
Evo++	(400,30) 5.15 ± 0.013	(600,40) 5.62 ± 0.012	(800,80) 5.94 ± 0.012
Evo10	(200) 5.209 ± 0.012	(600) 5.652 ± 0.011	(800) 6.013 ± 0.012
EFE8	(200) 5.247 ± 0.013	(600) 5.689 ± 0.012	(800) 6.005 ± 0.012
EFE16	(200) 5.222 ± 0.013	(600) 5.624 ± 0.012	(800) 5.9832 ± 0.012

(b) Mean number of guesses and the standard error of the mean for $\ell = 6, 7$, the quantities in parentheses indicate population and consistent set size (in the case of the previous results).

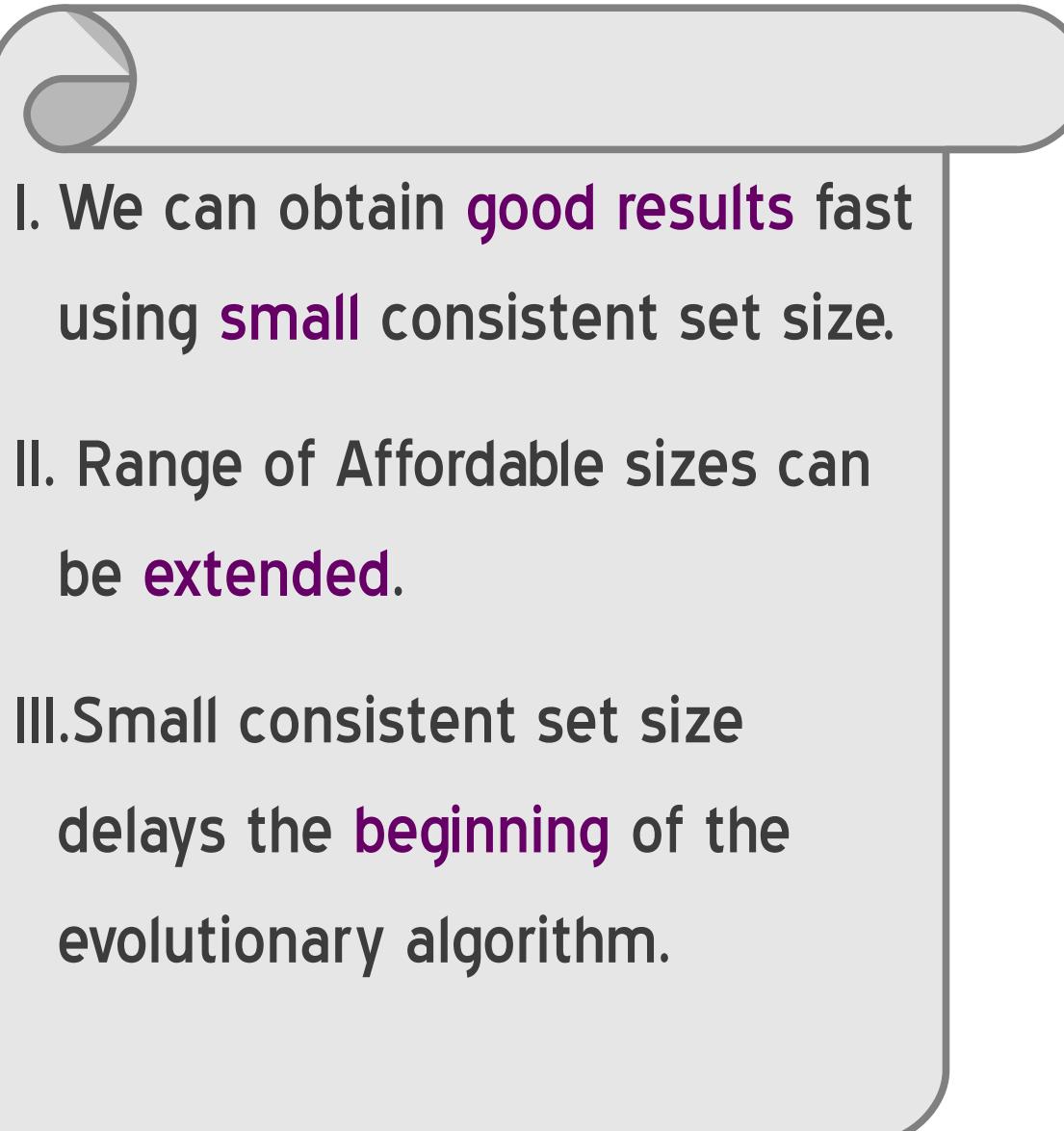
	$\ell = 6$		$\ell = 7$	
	$\kappa = 9$	$\kappa = 10$	$\kappa = 10$	
Berghman et al.	6.475			
Evo++	(1000,100) 6.479 ± 0.012			
Evo10	(800) 6.504 ± 0.012	(1000) 6.877 ± 0.013	(1500) 7.425 ± 0.013	
EFE8	(800) 6.537 ± 0.012	(1000) 6.891 ± 0.013	(1500) 7.422 ± 0.013	
EFE16	(800) 6.488 ± 0.012	(1000) 6.853 ± 0.013	(1500) 7.372 ± 0.013	

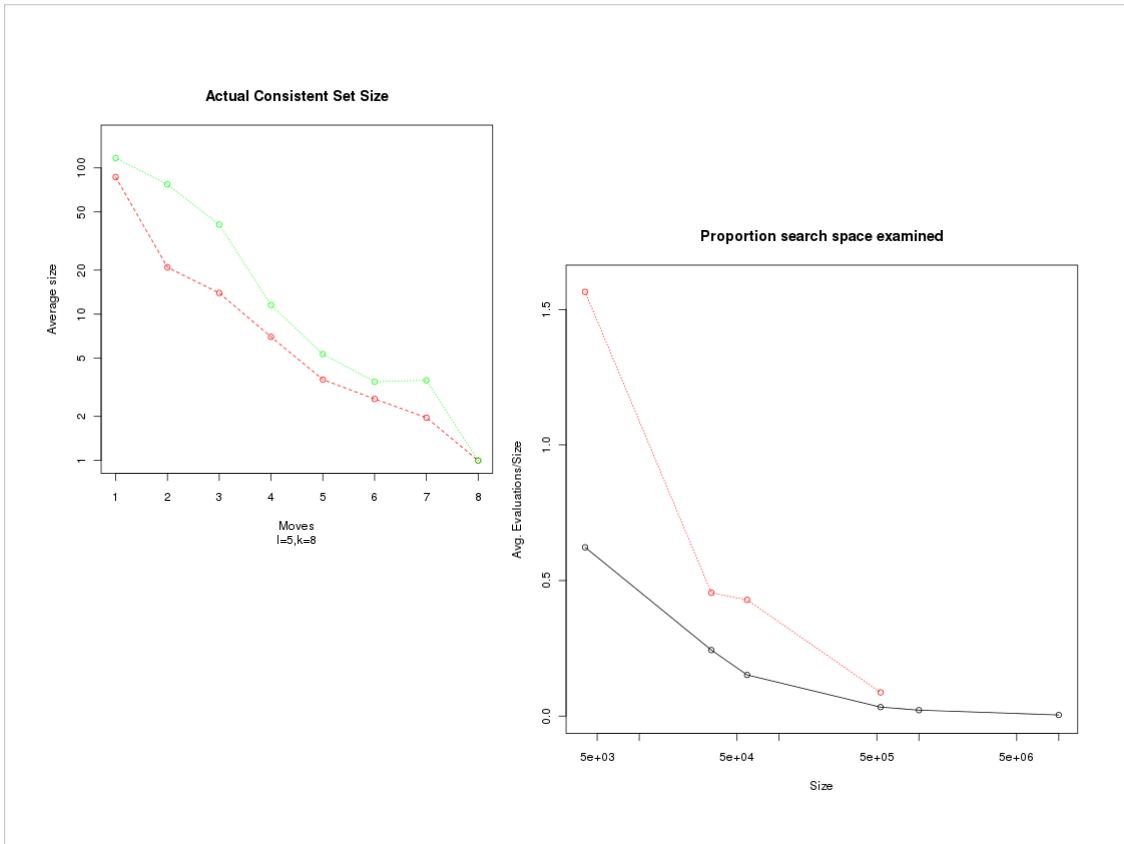
(c) Mean number of evaluations and its standard deviation $\ell = 4, 5$.

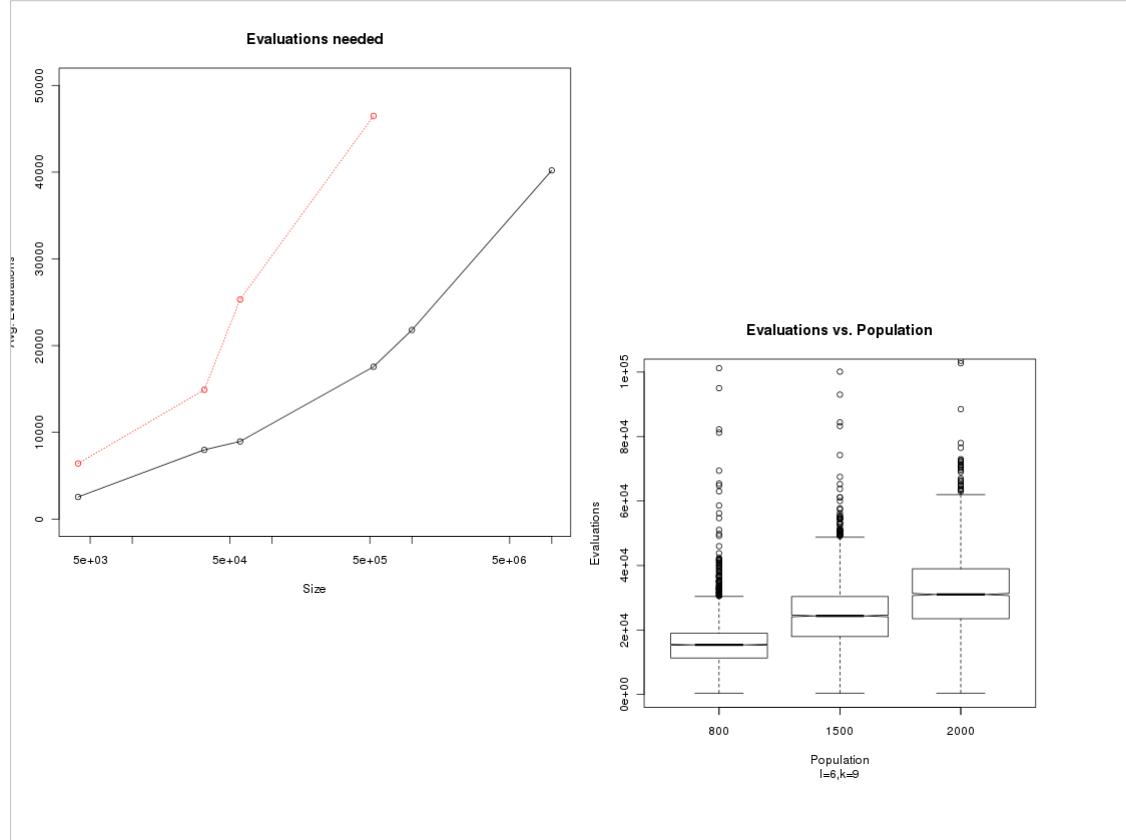
	$\ell = 4$	$\ell = 5$	
	$\kappa = 8$	$\kappa = 8$	$\kappa = 9$
Evo++	6949 ± 48	14911 ± 6120	25323 ± 9972
Evo10	2551 ± 20	7981 ± 50	8953 ± 3982
EFE8	2475 ± 56	7596 ± 49	10412 ± 65
EFE16	2896 ± 21	8947 ± 72	12261 ± 74

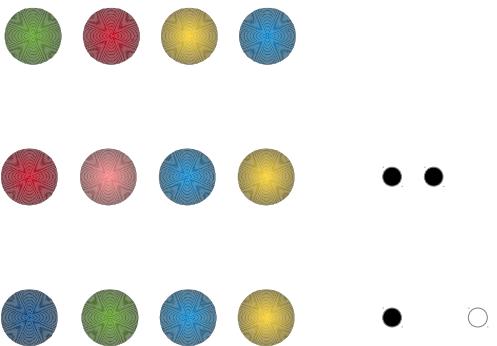
(d) Mean number of evaluations and its standard deviation $\ell = 6, 7$.

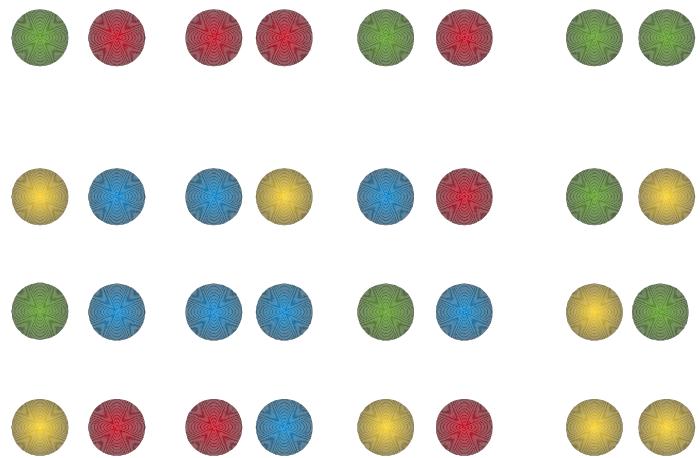
	$\ell = 6$		$\ell = 7$
	$\kappa = 9$	$\kappa = 10$	$\kappa = 10$
Evo++	46483 ± 17031		
Evo10	17562 ± 1914	21804 ± 960	40205 ± 926
EFE8	28875 ± 14155	21256 ± 1873	315437 ± 264054
EFE16	16993 ± 105	22819 ± 206	322319 ± 278938

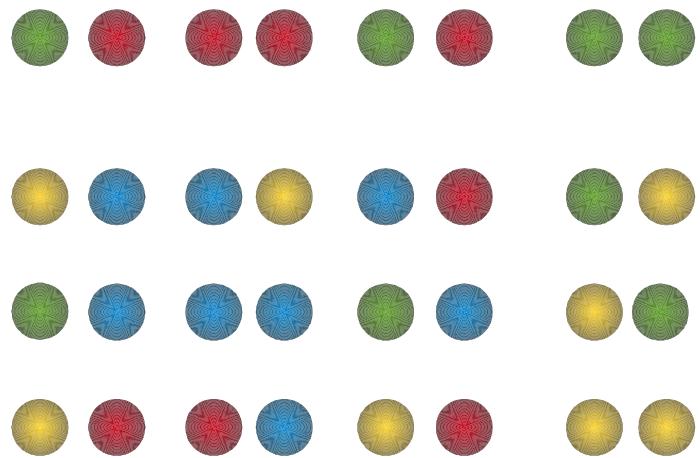
- 
- I. We can obtain **good results** fast using **small** consistent set size.
 - II. Range of Affordable sizes can be **extended**.
 - III. Small consistent set size delays the **beginning** of the evolutionary algorithm.











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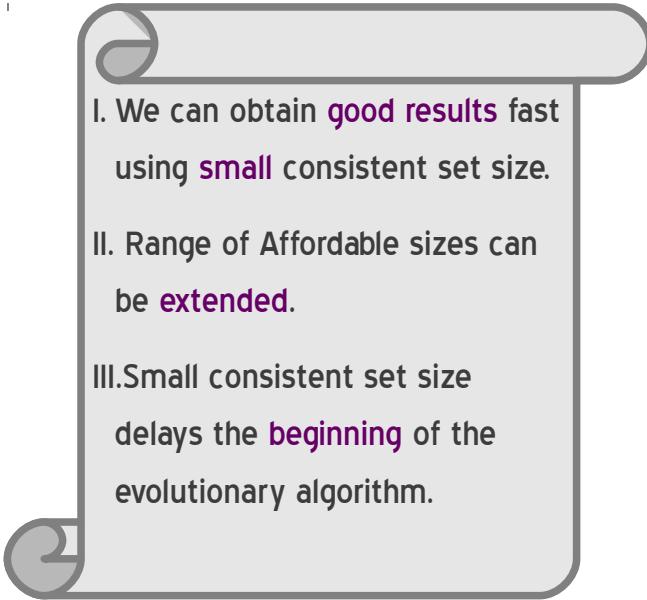
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