

### S3 Table - 62-item dog-directed PSDQ Principal Component Analysis

Dutch dog owning parents ( $N=518$ ) reported on dog-directed parenting in 62 items adapted from the Parenting Styles and Dimensions Questionnaire (PSDQ). Answers on a five-point Likert scale were analysed by Principal Component Analysis and presented are the loadings  $\geq |0.4|$  and percentages of variation explained by the main components, which represented dimensions of parenting authoritatively and authoritarian.

Item	Variance explained (latent root)		
	13% (8.0) Authoritative	9% (5.3) Authoritarian	7% (4.5) Authoritative - intrinsic value/emotion
I practice certain behaviour with my dog before asking this behaviour in a more difficult situation. <sup>AV</sup>	0.7		
I practice behaviour step by step with my dog, so I am sure he understands what I ask of him. <sup>AV</sup>	0.6		
I think about why my dog does something when it misbehaves. <sup>AV</sup>	0.6		
I channel my dog's misbehaviour into a more acceptable activity. <sup>AV</sup>	0.6		
I think about why rules should be obeyed by my dog. <sup>AV</sup>	0.6		
I give praise when my dog is good. <sup>AV</sup>	0.6		
I use more or higher value reward (food or toy) when I believe my dog should really do something in a situation. <sup>AV</sup>	0.5		
I play and have fun with my dog. <sup>AV</sup>	0.5		
I lure my dog with reward to solicit certain behaviour, even when it is misbehaving at that moment. <sup>PM!</sup>	0.5		
I am responsive to my dog's feelings or needs. <sup>AV</sup>	0.5		
I encourage my dog to 'be dog' even when it results in a dirty or wet dog. <sup>AV</sup>	0.4		
I show respect for my dog's needs by encouraging my dog to 'be dog'. <sup>AV</sup>	0.4		
I set consequences when my dog acts contrary to my wishes. <sup>PM!</sup>	-0.4		
I use a corrective slap when my dog misbehaves. <sup>AN</sup>			0.7
I use physical punishment (for instance a slap or a correction chain) as a way to improve my dog's behaviour. <sup>AN</sup>			0.6
I use short pulls on the leash or pull back when my dog pulls. <sup>AN</sup>			0.6
I grab my dog when he is being disobedient. <sup>AN</sup>			0.6
I raise my voice to make my dog improve. <sup>AN</sup>			0.6

I yell or shout when my dog misbehaves. <sup>AN</sup>	0.6	
When I ask my dog to do something, he should do so, because I said so and I am its boss. <sup>AN</sup>	0.6	
I shove my dog when he is disobedient. <sup>AN</sup>	0.6	
I use threats as punishment without feeling need for justification towards my dog. <sup>AN</sup>	0.6	
I can explode in anger towards my dog when he does something he knows I don't want him to do. <sup>AN</sup>	0.6	
I use a poke of my finger, or short kick to snap my dog out of it when it misbehaves. <sup>AN</sup>	0.6	
I demand that my dog does things. <sup>AN</sup>	0.5	
I guide my dog by punishment more than by tapping into its natural needs. <sup>AN</sup>	0.5	
I scold or criticize when my dog's behaviour doesn't meet my expectations. <sup>AN</sup>	0.5	
I threaten with punishments towards my dog and do not actually do them. <sup>PM!</sup>	0.5	
I let my dog know how I feel about its good and bad behaviour. <sup>AV!</sup>	0.4	
I set consequences when my dog acts contrary to my wishes. <sup>PM!</sup>	-0.4	
I give comfort when my dog is upset. <sup>AV</sup>		0.6
I show sympathy when my dog is hurt or frustrated. <sup>AV</sup>		0.6
I spoil my dog. <sup>PM!</sup>		0.6
I allow my dog to give input on decisions for instance with regard to the route we follow on walks. <sup>AV</sup>		0.6
I give into my dog when he causes a commotion about something or doesn't do something I want it to. <sup>PM!</sup>		0.5
I take my dog's desires into account before asking him to do something. <sup>AV</sup>		0.5
I am responsive to my dog's feelings or needs. <sup>AV</sup>		0.4
I encourage my dog to show how it feels, it is allowed to growl for instance, when uncomfortable. <sup>AV</sup>		0.4
I take into account my dog's preferences in making plans. <sup>AV</sup>		0.4

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<sup>AN</sup> - Authoritarian item in the original PSDQ, <sup>AV</sup> - Authoritative item, <sup>PM</sup> – Permissive item  
\* - Item in 32-PSDQ