



## ERRATUM

SANCHEZ, L. & THIEFFRY, D. (2001). A Logical Analysis of the *Drosophila* Gap-gene system. *J. theor. Biol.* **211**(2), 115–141.

In the article shown above, it is regretted that Fig. 4 was published incorrectly. The corrected figure is shown below, with the additions in bold type.

Genetic background (loss-of-function)	«Final state» <i>GHRN</i>				Functional predictions
	A	B	C	D	
wild-type					
<i>bicoid</i>					Loss of <i>giant</i> expression in A Loss of <i>hunchback</i> expression in A, B and C and <b>Krüppel</b> expression in B and C Activation of <i>knirps</i> in A and B
<i>hunchback<sub>mat</sub></i>					Wild type
<i>caudal</i>					Increase of <i>Krüppel</i> expression in C Loss of <i>knirps</i> expression in C Loss of <i>giant</i> expression in D
<i>giant</i>					Activation of <i>knirps</i> in D
<i>Krüppel</i>					Expression of <i>giant</i> in B and C Loss of <i>knirps</i> expression in C
<i>knirps</i>					Increase of <i>Krüppel</i> expression in C
<i>hunchback<sub>mat+zyg</sub></i>					Activation of <i>giant</i> in all regions Loss of <i>Krüppel</i> expression in B and C Loss of <i>knirps</i> expression in C
<i>giant-Krüppel</i>					Activation of <i>knirps</i> in D
<i>Krüppel-knirps</i>					Activation of <i>giant</i> in B and C
<i>giant-knirps</i>					Increase of <i>Krüppel</i> expression in C
4 domains					
A —————> P					

In addition, the following line (in bold type) should have been inserted into the footnote of Table A1:

\* The first column encompasses all possible combinations of the values of the four logical variables associated with the different functional levels of the products of *giant* (*g*), *hunchback* (*h*), *Krüppel* (*r*) and *knirps* (*n*). For example, *ghrn* = 0201 represents a state where the levels of Giant and Krüppel are both below their first functional thresholds, with a middle-high level of Hunchback and a high level of Knirps. The other columns give the values for the functions associated with the expression levels of these four genes (*G*, *H*, *R* and *N*) in terms of logical parameters (*K*'s). These parameters are defined as follows: *K<sub>g</sub>* stands for the basal expression of *giant*, **in the absence of its activators and in the presence of its repressors**; *K<sub>g,b</sub>* accounts for the activating effect of the sole Bicoid on the expression of *giant*; *K<sub>g,br</sub>* qualifies the effect of the combination of the presence of Bicoid (activator) and the absence of Krüppel (repressor) on the expression of *giant*, etc. For the sake of simplicity, "b" is omitted in *K*'s subscripts whenever a Greek letter is already present, as Greek symbols represent combinations of Bicoid and Hunchback products. To account for the different inputs from the maternal morphogens, slightly different sets of parameters are associated with the different regions of the trunk of the embryo (regions A–D corresponding to the most anterior through to the most posterior part of the embryo). Depending on the parameter values selected, this general state table may give rise to a large variety of different dynamics.