

Date

January 9<sup>th</sup>, 2019

## Scale of Conclusions

This nine-level scale is used for evaluative reporting at the Swedish National Forensic Centre (NFC). The likelihood ratio (LR) i.e. how much the results speak for or against the main hypothesis, is assessed. The magnitude of the LR determines the level of conclusion. If either the main or alternative hypothesis can be excluded, the scale is not used and the conclusion will be a statement of fact.

Level	Verbal expression	Explanation	Likelihood ratio (LR)
+4	The results extremely strongly support that.. [main hypothesis]	The results are at least 1 000 000 times more probable if the main hypothesis is true compared to if the alternative hypothesis is true.	$1\ 000\ 000 \leq LR$
+3	The results strongly support that.. [main hypothesis]	The results are at least 6 000 times more probable if the main hypothesis is true compared to if the alternative hypothesis is true.	$6\ 000 \leq LR < 1\ 000\ 000$
+2	The results support that.. [main hypothesis]	The results are at least 100 times more probable if the main hypothesis is true compared to if the alternative hypothesis is true.	$100 \leq LR < 6\ 000$
+1	The results support to some extent that.. [main hypothesis]	The results are at least 6 times more probable if the main hypothesis is true compared to if the alternative hypothesis is true.	$6 \leq LR < 100$
0	The results equally support that [main hypothesis] and that [alt. hypothesis]	The results are equally probable if the main hypothesis is true compared to if the alternative hypothesis is true.	$\frac{1}{6} < LR < 6$
-1	The results support to some extent that.. [alt. hypothesis]	The results are at least 6 times more probable if the <u>alternative hypothesis</u> is true compared to if the main hypothesis is true.	$\frac{1}{100} < LR \leq \frac{1}{6}$
-2	The results support that.. [alt. hypothesis]	The results are at least 100 times more probable if the <u>alternative hypothesis</u> is true compared to if the main hypothesis is true.	$\frac{1}{6\ 000} < LR \leq \frac{1}{100}$
-3	The results strongly support that.. [alt. hypothesis]	The results are at least 6 000 times more probable if the <u>alternative hypothesis</u> is true compared to if the main hypothesis is true.	$\frac{1}{1\ 000\ 000} < LR \leq \frac{1}{6\ 000}$
-4	The results extremely strongly support that.. [alt. hypothesis]	The results are at least 1 000 000 times more probable if the <u>alternative hypothesis</u> is true compared to if the main hypothesis is true.	$LR \leq \frac{1}{1\ 000\ 000}$