

Figure 1. Hypothesized changes in affect accompanying positive and negative reframing.


Figure 2. Hypothesized paths leading to Truth

## Table 1. Extent of Agreement between Judges in Categorizing Proverbs as Reframes

| No. of <br> judges <br> agreeing |  |  | Reframes category |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Negative | Positive | Either | Not a <br> reframe <br> s | Unfamiliar <br> proverb | Tie | Total |
| Six | 11 | 4 | 1 | 0 | 0 | 0 | 16 |
| Five | 15 | 12 | 3 | 0 | 0 | 0 | 30 |
| Four | 21 | 22 | 7 | 0 | 3 | 0 | 53 |
| Three | 19 | 17 | 16 | 5 | 1 | 12 | 70 |
| Two | 0 | 1 | 3 | 0 | 2 | 24 | 30 |
| Total | 66 | 56 | 30 | 5 | 6 | 36 | 199 |

Note. Inter-judge reliabilities were calculated by comparing each of the six judges against the other judges in a pair-wise fashion using chi-square analyses. Any proverb that was unfamiliar to either of the two judges being compared, was not included in that analysis. Judges showed high agreement in classifying proverbs as negative, positive, "either" reframes, or not a reframe. Each chi-square was significant, $\mathrm{X}^{2}(9), 165<\underline{\mathrm{N}}<193, \mathrm{p}<.006$, with the median contingency coefficient $=.45)$.

| 33. Better to be safe than sorry. | $\begin{gathered} \square \\ \hline \text { Extr. False } \end{gathered}$ | $\begin{gathered} \square \\ \text { Very False } \end{gathered}$ | Some False | $\begin{gathered} \square \square \\ \text { Neutral } \end{gathered}$ | $\begin{gathered} \square \\ \text { Some True } \end{gathered}$ | $\begin{gathered} \square \\ \text { Very True } \end{gathered}$ | $\begin{gathered} \square \\ \square \\ \text { Extr. True } \end{gathered}$ | $\begin{gathered} \square \\ \text { Uniamiliar } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 108. Love is blind. | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Extr. False | Very False | Some False | Neutral | Some True | Very True | Extr. True | Unfamiliar |
| 179. Two heads are better than one. | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Extr. False | Very False | Some False | Neutral | Some True | Very True | Extr. True | Unfamiliar |


| 46. Clothes make the man. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| 338. Only time will tell. | $\begin{gathered} \square \\ \square \\ \text { Extr. False } \end{gathered}$ | $\begin{gathered} \square \\ \square \text { Very False } \end{gathered}$ | Some False |  |  | Very True | Extr. True | Unfamiliar |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| 110. Make haste slowly. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| 344. What goes around comes around. | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Extr. False | $\square$ | $\square$ |  |  |  |  |  |
| Very False |  |  |  |  |  |  |  | Some False | $\square$ |
| :---: |
| Neutral |

350. Don't leave for tomorrow what you can do today.

| $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Extr. False | $\square$ | $\square$ | $\square$ |  |  |  |
| Very False | Some False | Neutral | Some True | Very True | Ext. True |  |


| 37. Blood is thicker than water. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| 83. Hitch your wagon to a star. | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ext. False | $\square$ | $\square$ |  |  |  |  |  |
| Very False |  |  |  |  |  |  |  | Some False | Neutral |
| :---: |

124. Nothing is certain but death and taxes.

| $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Extr. False | Very False | Some False | Neutral | Some Tue | Very True | Extr. True |


| $\square$ |
| :---: |
| Unfamiliar |

128. One bad apple spoils the barrel.

| $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Extr. False | Very False | Some False | Neutral | Some True | Very True | Extr. True |

335. Almost doesn't count, only in horseshoes.

336. A chain is no stronger than its weakest link.

337. Avoiding someone shows your guilt.

| $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Extr. False | Very False | Some False | Neutral | Some True | Very True | Extr. True |

355. If you never speak up, you'll never be heard.

| $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Extr. False | Very False | Some False | Neutral | Some True | Very True | Extr. True |




Figure 4. Proverbs tend to be Somewhat True

Table 2. Correlations between Proverb Measures

|  | Reframe + , - | Pleasantness | Simplicity | Truth | Familiarity | Imagery | FleschKincaid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reframe + , - | 1 |  |  |  |  |  |  |
| Pleasantness | $0.65 * * *$ | 1 |  |  |  |  |  |
| Simplicity | 0.13 | 0.38*** | 1 |  |  |  |  |
| Truth | 0.11 | 0.42*** | $0.32^{* * *}$ | 1 |  |  |  |
| Familiarity | 0.26** | $0.35 * * *$ | 0.63 *** | 0.20* | 1 |  |  |
| Imagery | -0.09 | -0.06 | $0.37^{* * *}$ | 0.08 | 0.51*** | 1 |  |
| Flesch-Kincaid | 0.14 | 0.15 | -0.03 | 0.03 | 0.02 | -.26** | 1 |
|  | *** $p<.001$ | ** $\mathrm{p}<.01$ | * $\mathrm{p}<.05$ |  |  |  |  |

Note. Because the Reframe variable is dichotomous, correlations involving it are point-biserial.

> Table 2 (continued) Regression Equation for Predicting Truth Truth $=2.91+.42$ (Pleasantness) - .24 (Reframe)


Figure 5. Accidental good fit with data.
Chi-square $=1.20, \underline{d f}=2, p=0.55$
RMSEA $=0.00, \mathrm{GFI}=1.00, \mathrm{AGFI}=0.97$, standardized $R M R=0.014$

## Appendix A: Some Proverbs used in this Study

Negative Reframes have been sorted least to most true using Predicted Truth. The same for the Positive Reframes.

| $\begin{gathered} \mathrm{O} \\ \mathrm{r} \\ \mathrm{~d} \\ \mathrm{e} \\ \mathrm{r} \\ \hline \end{gathered}$ | ID | Saying |  | Reframe | Pleasantness |  |  | Truth |  |  | PREDICTED TRUTH |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{aligned} & \mathrm{M} \\ & \mathrm{e} \\ & \mathrm{a} \\ & \mathrm{n} \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{S} \\ & \mathrm{~d} \end{aligned}$ | N | $\begin{aligned} & \mathrm{M} \\ & \mathrm{e} \\ & \mathrm{a} \\ & \mathrm{n} \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{S} \\ & \mathrm{~d} \end{aligned}$ | N |  |
|  |  | The 5 least true negative reframes |  |  |  |  |  |  |  |  |  |
| 53 | 74 | Give a man enough rope and he'll hang himself. | -1 | Negative | 2.62 | 1.17 | 26 | 4.91 | 1.50 | 23 | 3.768 |
| 23 | 128 | One bad apple spoils the barrel. | -1 | Negative | 3.18 | 1.12 | 28 | 4.70 | 1.84 | 27 | 4.005 |
| 41 | 165 | The road to hell is paved with good intentions. | -1 | Negative | 3.21 | 1.84 | 19 | 4.23 | 1.60 | 22 | 4.018 |
| 59 | 127 | Once a thief always a thief. | -1 | Negative | 3.34 | 1.52 | 29 | 3.82 | 1.28 | 28 | 4.075 |
| 58 | 114 | Money is the root of all evil. | -1 | Negative | 3.37 | 1.62 | 27 | 4.48 | 2.15 | 29 | 4.086 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | The 5 most true negative reframes |  |  |  |  |  |  |  |  |  |
| 36 | 107 | Look before you leap. | -1 | Negative | 4.97 | 0.94 | 29 | 5.64 | 0.83 | 28 | 4.756 |
| 65 | 172 | Think before you speak. | -1 | Negative | 4.97 | 1.67 | 30 | 6.24 | 0.74 | 29 | 4.756 |
| 49 | 29 | A word to the wise is sufficient. | -1 | Negative | 5.06 | 1.06 | 16 | 4.72 | 1.07 | 18 | 4.796 |
| 44 | 183 | United we stand, divided we fall. | -1 | Negative | 5.24 | 1.38 | 29 | 5.34 | 1.14 | 29 | 4.871 |
| 29 | 33 | Better to be safe than sorry. | -1 | Negative | 5.31 | 1.04 | 29 | 5.07 | 1.56 | 29 | 4.900 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | The five least true positive reframes |  |  |  |  |  |  |  |  |  |
| 102 | 169 | There's more than one way to skin a cat. | 1 | Positive | 3.58 | 1.63 | 26 | 5.29 | 1.04 | 24 | 3.932 |
| 76 | 123 | No news is good news. | 1 | Positive | 3.90 | 1.74 | 29 | 4.21 | 1.37 | 29 | 4.067 |
| 120 | 158 | The end justifies the means. | 1 | Positive | 4.07 | 1.39 | 28 | 4.50 | 1.50 | 26 | 4.140 |
| 113 | 95 | Keep a stiff upper lip. | 1 | Positive | 4.08 | 0.98 | 26 | 4.64 | 0.95 | 22 | 4.142 |
| 108 | 40 | Bury the hatchet. | 1 | Positive | 4.31 | 1.04 | 29 | 5.00 | 1.17 | 26 | 4.240 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | The 5 most true positive reframes |  |  |  |  |  |  |  |  |  |
| 69 | 193 | Where there's a will, there's a way. | 1 | Positive | 5.73 | 1.05 | 30 | 5.89 | 1.13 | 28 | 4.838 |
| 110 | 70 | Experience is the best teacher. | 1 | Positive | 5.75 | 1.35 | 28 | 6.41 | 0.68 | 29 | 4.845 |
| 111 | 85 | Honesty is the best policy. | 1 | Positive | 5.76 | 1.24 | 29 | 5.59 | 1.45 | 29 | 4.849 |
| 82 | 197 | You are never too old to learn. | 1 | Positive | 5.76 | 1.02 | 29 | 6.17 | 0.87 | 30 | 4.849 |
| 97 | 109 | Love makes the world go round. | 1 | Positive | 6.08 | 0.80 | 26 | 5.00 | 1.55 | 25 | 4.982 |

