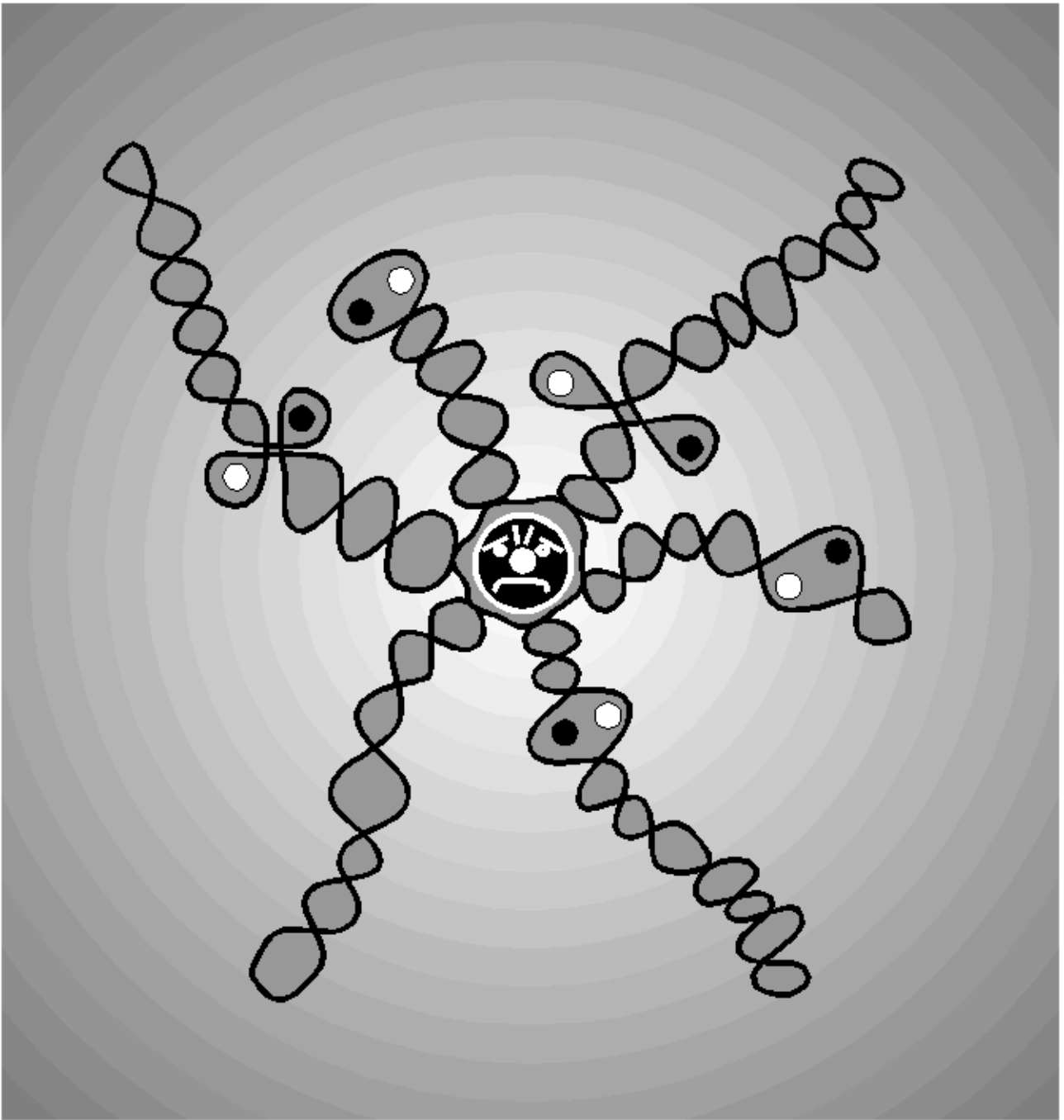
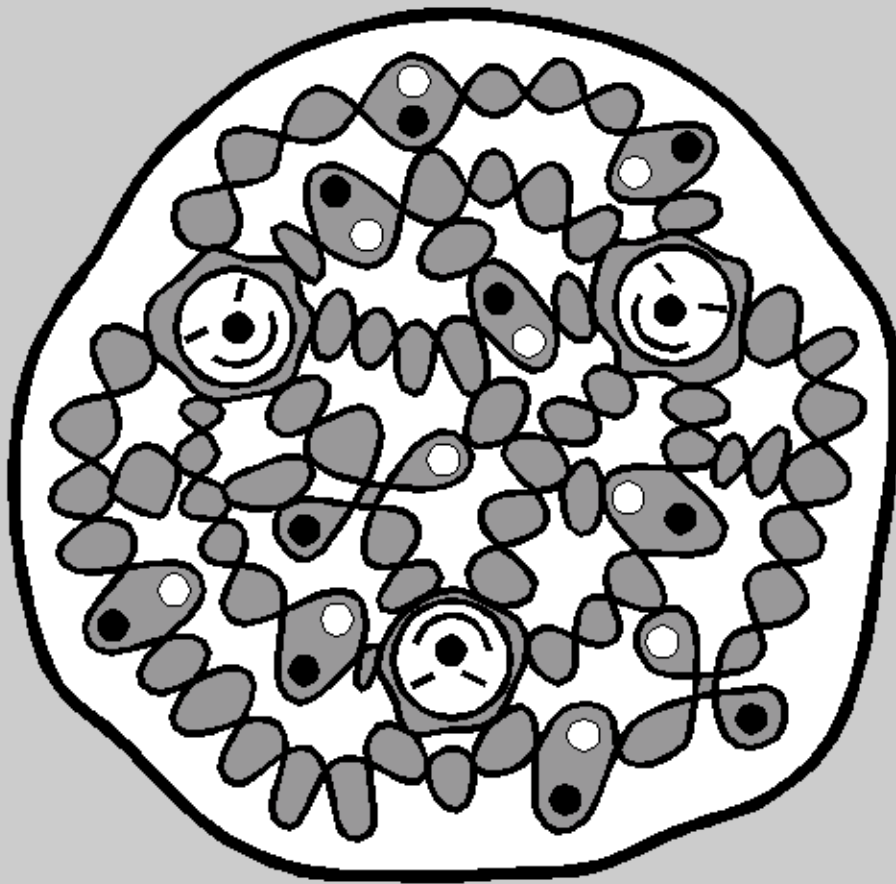


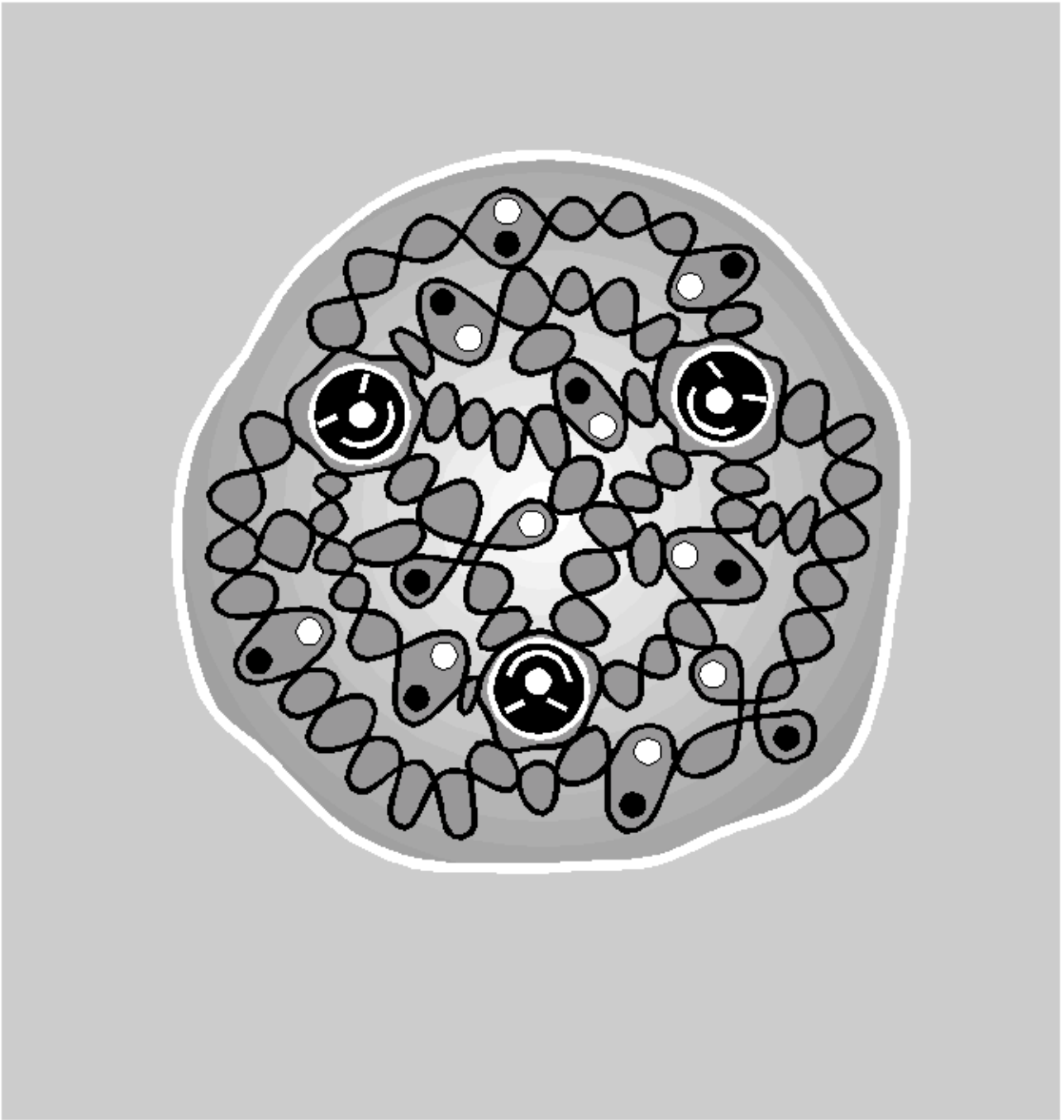
1. Das unglückliche Quark



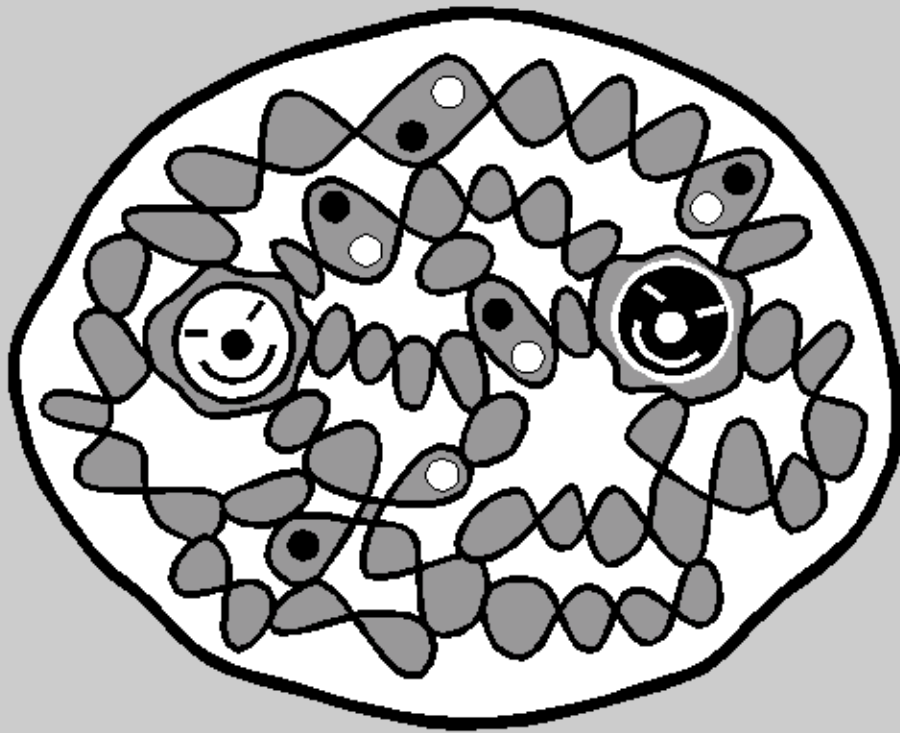
2. Das unglückliche Anti-Quark



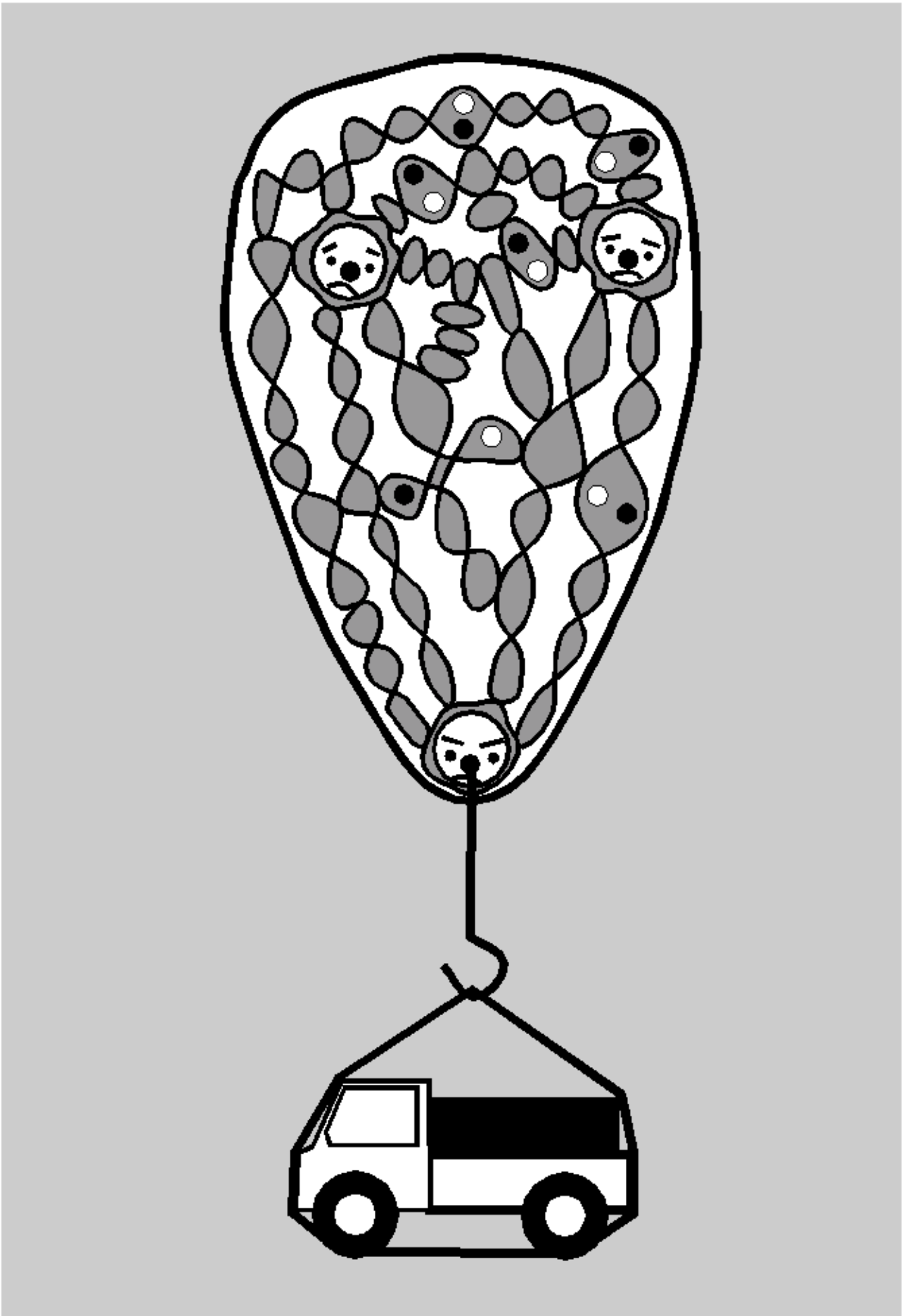
3. Drei glückliche Quarks (Baryon)



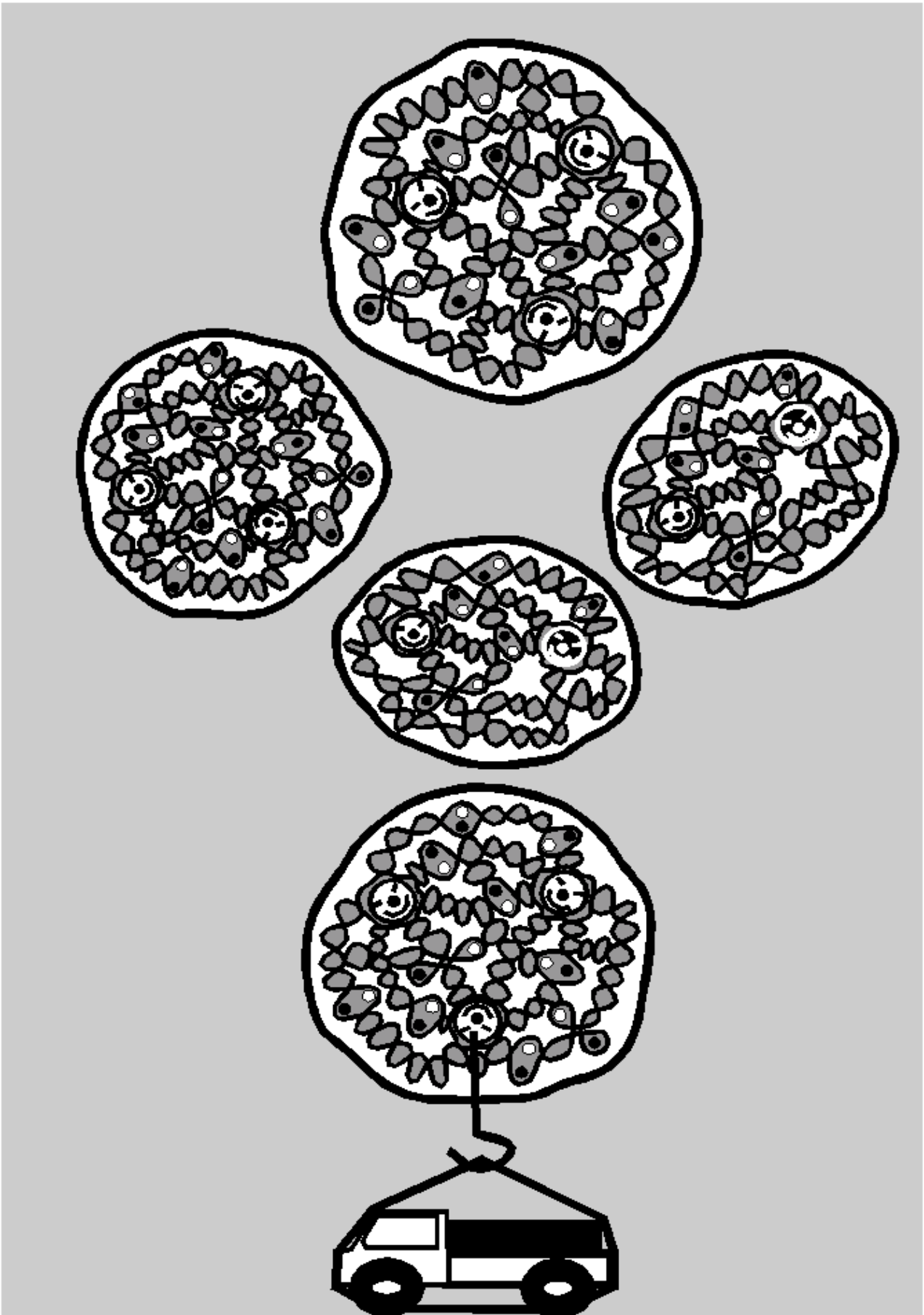
4. Drei glückliche Anti-Quarks (Antibaryon)



5. Glückliches Quark-Antiquark (Meson)



6. Die Stärke der Kräfte zwischen Quarks



7. Das Zerreißen der Kraftbänder

u



$+2/3$

d



$-1/3$

e



-1

ν_e



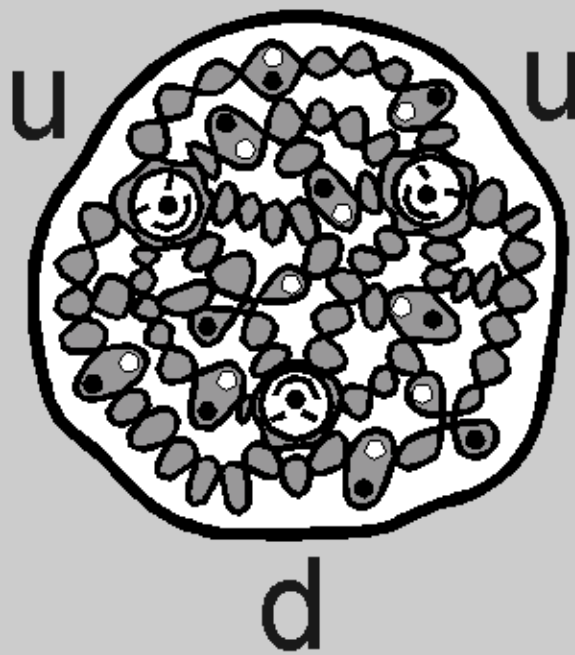
0

8. Die elektrische Ladung der Urteilchen

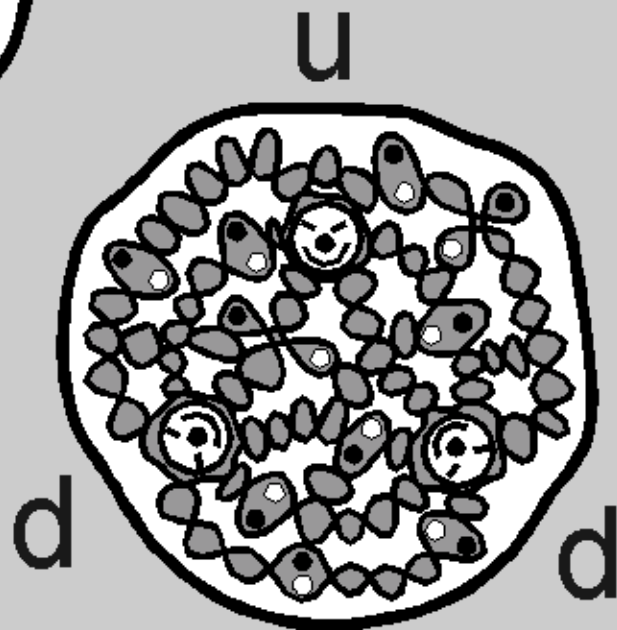
\bar{u}  $-2/3$ \bar{d}  $+1/3$ \bar{e}  $+1$ $\bar{\nu}_e$  0

9. Die elektrische Ladung der Anti-Urteilche

$$\frac{2}{3} + \frac{2}{3} - \frac{1}{3} = 1$$



Proton



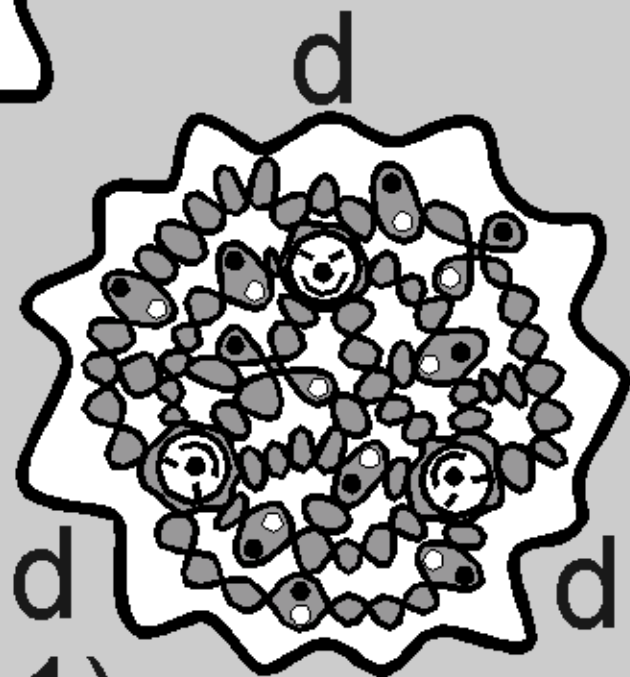
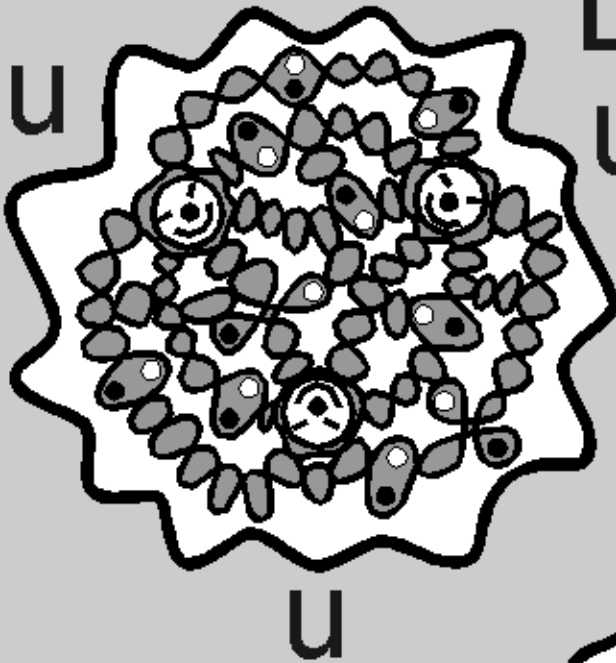
Neutron

$$\frac{2}{3} - \frac{1}{3} - \frac{1}{3} = 0$$

10. Das Proton und das Neutron

$$2/3 + 2/3 + 2/3 = +2$$

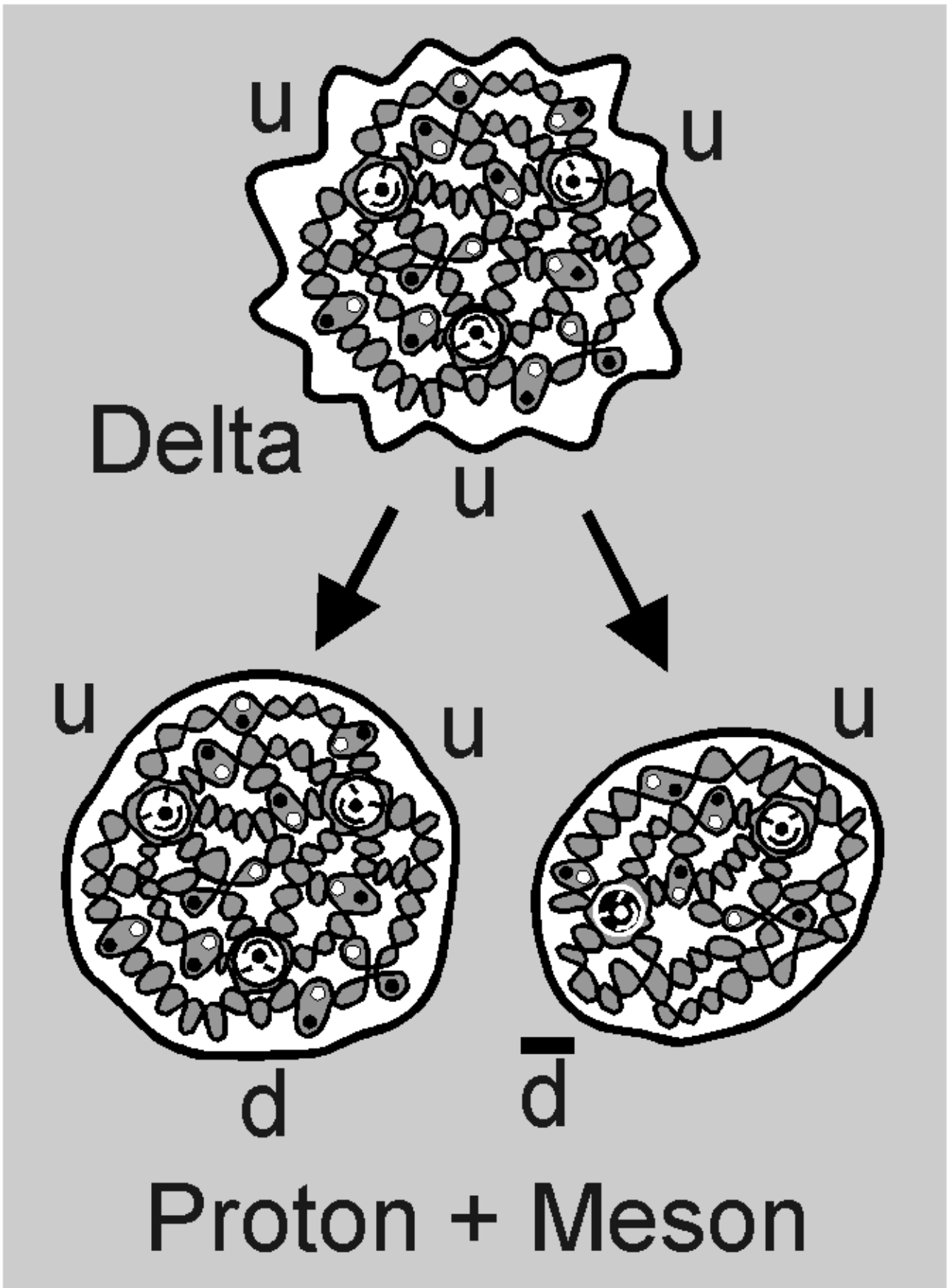
Delta (+2)



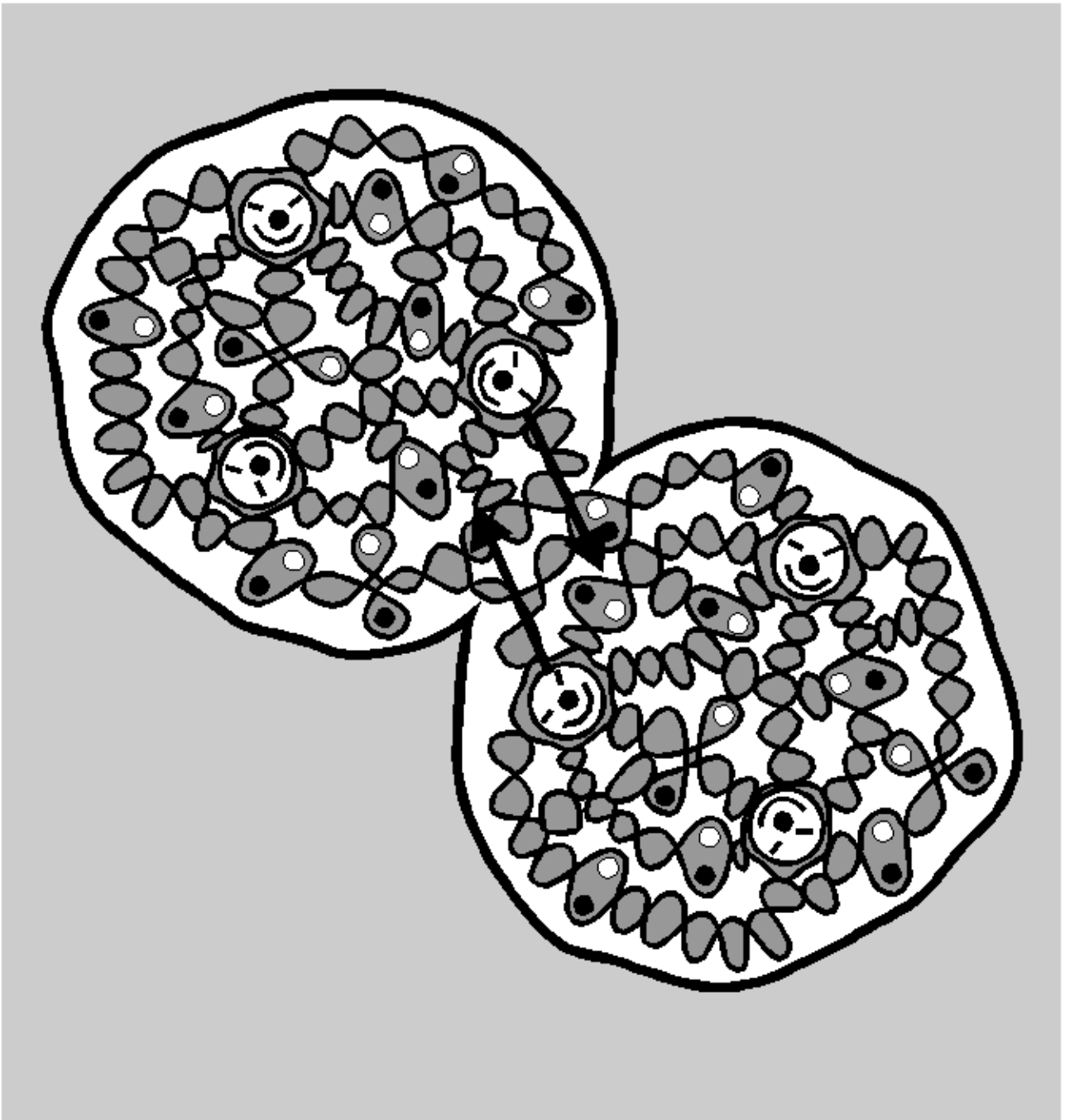
Delta (-1)

$$-1/3 - 1/3 - 1/3 = -1$$

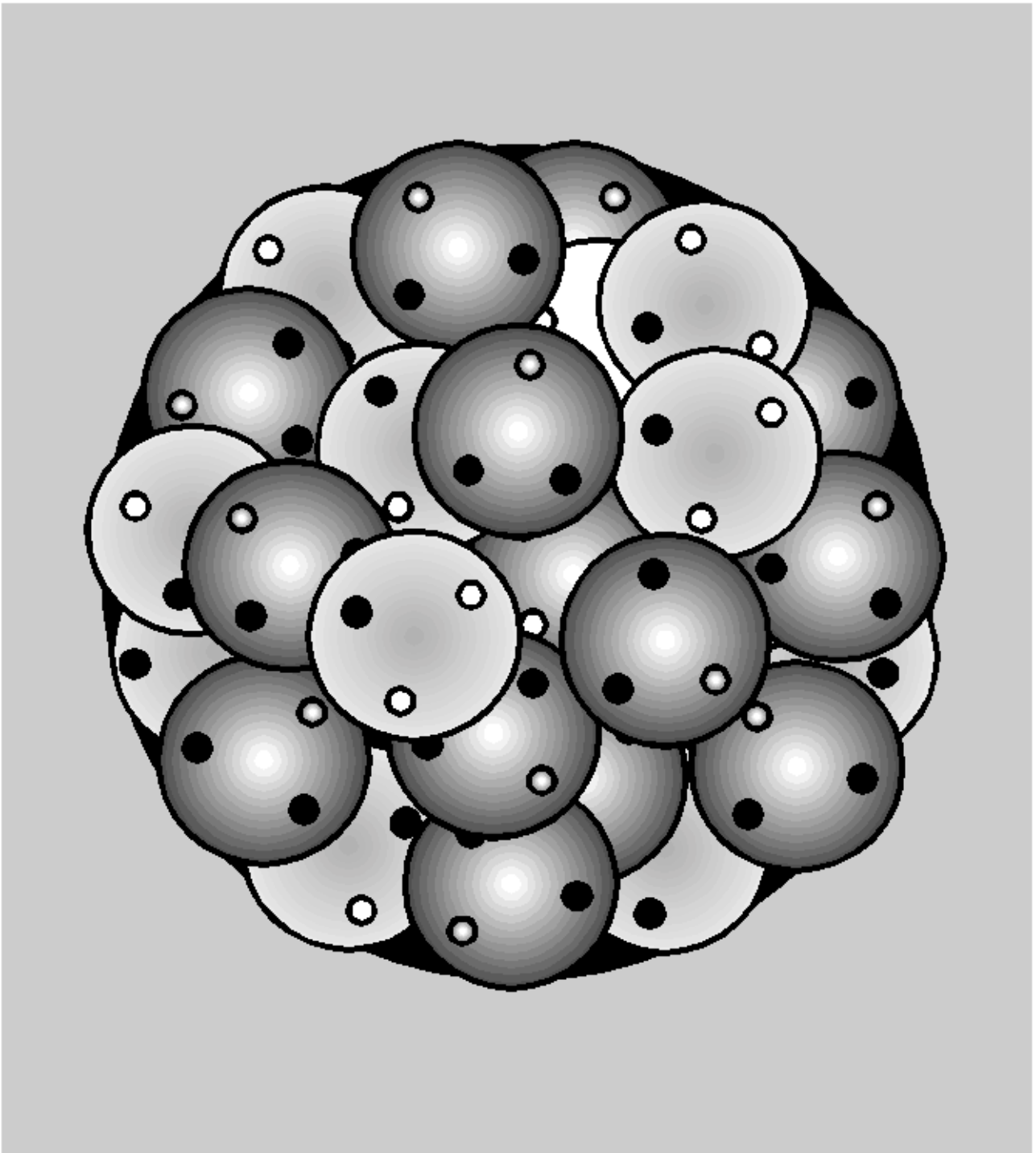
11. Die aufgeregten Delta-Teilche



12. Der Zerfall der Delta-Teilchen

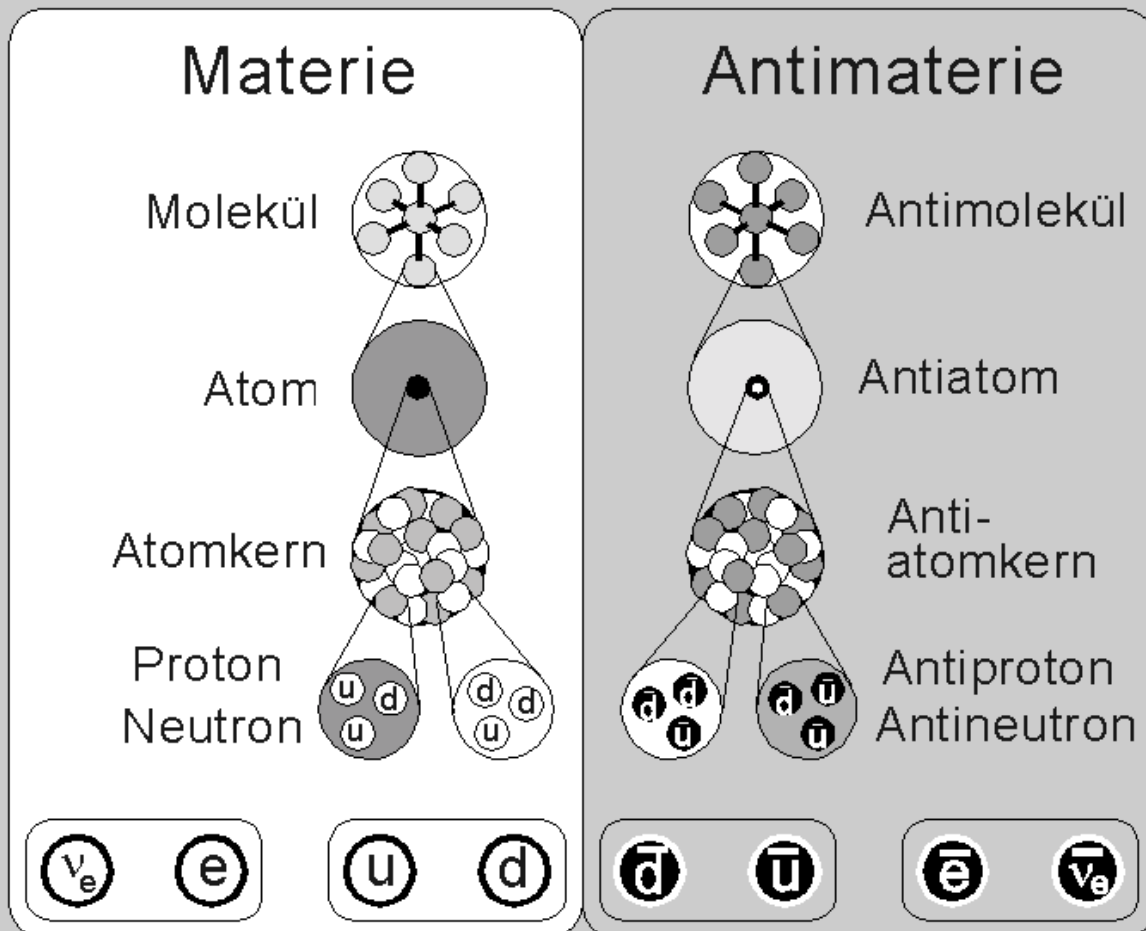


13. Die Darstellung der Kernkräfte



14. Der Atomkern

Die stabilen Teilchen

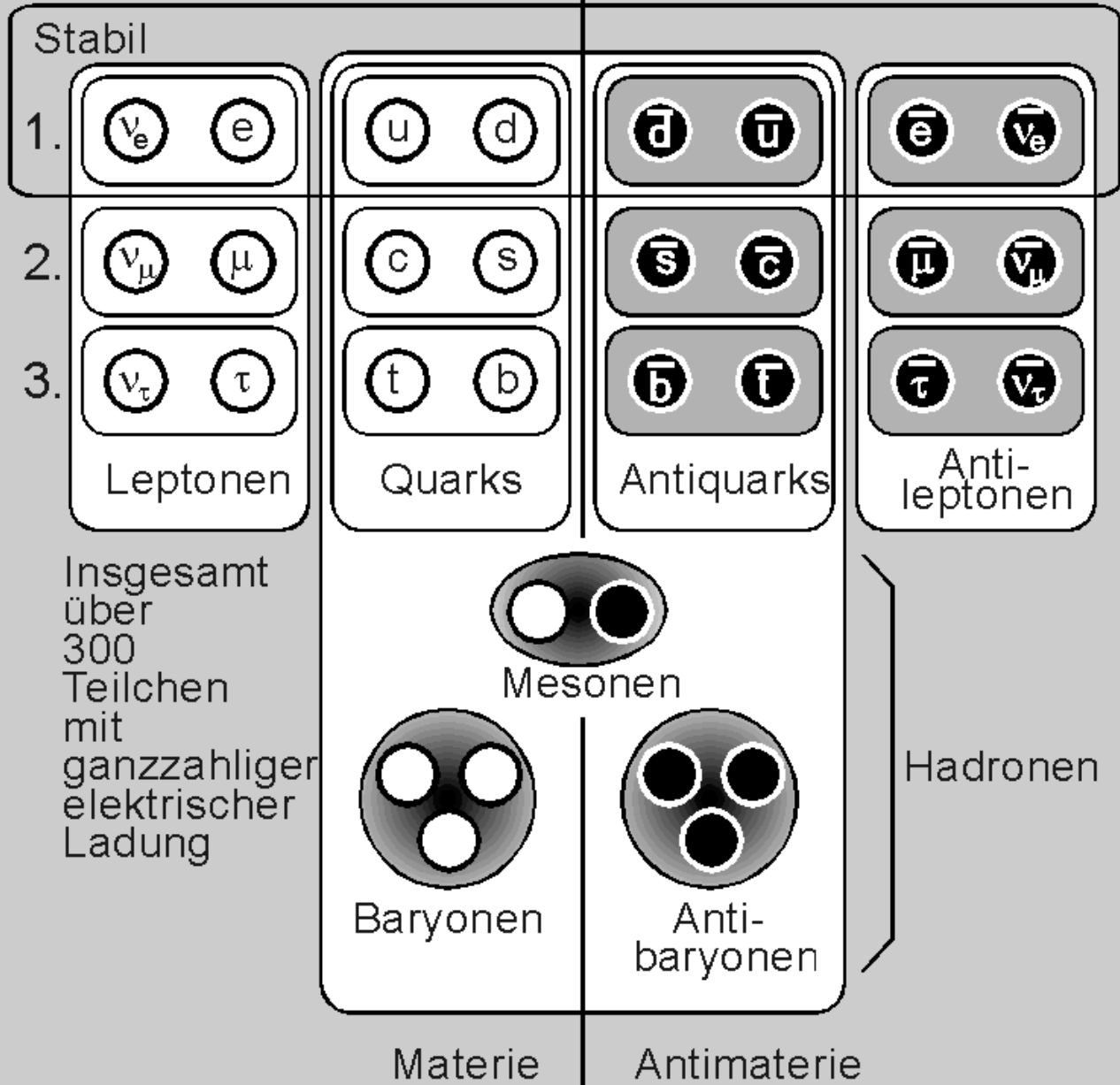


15. Die stabilen Teilchen

Der Teilchenzoo

Elektrische Ladung:

0 -1 +2/3 -1/3 +1/3 -2/3 +1 0



16. Der Teilchenzoo