Electronic Supporting Information (description of animated pictures).

The animated images (*.gif) are to be viewed with programs which support animation. For example they can be directly viewed with commonly used web browsers like Internet Explorer, Netscape and Opera.
Each file has size 270 x 240 pixels, color depth 8 bit.

The scans show changes in the geometry of the system when C_3 or C_2 minimal symmetry is conserved or no symmetry restrictions (C_1) are imposed onto the triphenylamine molecule. The scans C_3, C_2 and C_1 correspond to Figures 3, 4 and 5 of the manuscript, respectively.

Figure S2. "C$_3$ scan" (file "FigS2.gif")

The three central carbon atoms, adjacent to the nitrogen atom, are kept in the plane of the figure. The scan is performed for pitch angles between 10 and 170 degrees and goes back and forward within the potential well (the phenyl rings are never coplanar - because of the high barrier). Note:

$$(90 \text{ degrees}) - (\text{Pitch angle}) = XXX,$$

where XXX - is the value of the "C-C-N-(C_3 axis)" dihedral angle used as ordinate of the plot shown in Figure 3 of the main text.

Figure S3. "**C$_2$ scan**" (files "FigS3A.gif", "FigS3B.gif") and
Figure S4. "**C$_1$ scan**" (files "FigS4A.gif", "FigS4B.gif")

The rotation is continuous (always in one direction, looped).

Two representations for each case are shown:
either one of the phenyl rings (files "FigS3A.gif" and "FigS4A.gif") or the three central carbon atoms adjacent to the nitrogen atom (files "FigS3B.gif" and "FigS4B.gif") are fixed in the plane of the figure.

The central nitrogen atom is marked with blue color.