compensation effect

In a considerable number of cases plots of $T \Delta^{\ddagger} S$ vs. $\Delta^{\ddagger} H$, for a series of reactions, e.g. for a reaction in a range of different solvents, are straight lines of approximately unit slope. Therefore, the terms $\Delta^{\ddagger} H$ and $T \Delta^{\ddagger} S$ in the expression partially compensate, and

$$\Delta^{\ddagger} G = \Delta^{\ddagger} H - T \Delta^{\ddagger} S$$

often is a much simpler function of solvent (or other) variation than $\Delta^{\ddagger} H$ or $T \Delta^{\ddagger} S$ separately.

See also: isokinetic relationship

Source:
PAC, 1994, *66*, 1077 *(Glossary of terms used in physical organic chemistry (IUPAC Recommendations 1994))* on page 1098