m| So what have I really learned? I ~~need~~ considered $B \to A$ use $M \otimes_A A_B = M_B$ restriction of scalars, ~~this adj~~ left adjoint $N \mapsto N \otimes_B A$ right adjoint $\mathrm{Hom}_B(A, N) \Leftarrow N \otimes_B A$

I need some more examples.

Group algs $\underbrace{\mathbb{C}[H]}_{B} \to \underbrace{\mathbb{C}[G]}_{A}$. Why is

$$A \xrightarrow{\sim} \mathrm{Hom}_B(A, B)$$

Is there an obvious way to see that

$$N \otimes_{\mathbb{C}[H]} \mathbb{C}[G] \simeq \mathrm{Hom}_{\mathbb{C}[H]}(\mathbb{C}[G], N) \quad ?$$

So I need $\rho : A \to B$
$\mathbb{C}[G] \to \mathbb{C}[H]$

bimodule map. I believe it is

$$\rho(g) = \begin{cases} g & \text{if } g \in H \\ 0 & \text{if } g \notin H. \end{cases}$$ ~~up to a s~~

A map

$$N \otimes_{\mathbb{C}[H]} \mathbb{C}[G] \longrightarrow \mathrm{Hom}_{\mathbb{C}[H]}(\mathbb{C}[G], N)$$

same as $N \longrightarrow \mathrm{Hom}_{\mathbb{C}[H]}(\mathbb{C}[G], N)$

So what. I need to review a little.

$M \mapsto M \otimes_A P$ has adjoints $N \mapsto N \otimes_B Q_\ell$
$N \otimes_B Q_r$

$$Q_\ell = \mathrm{Hom}_{A^e}(P, A)$$

$$Q_r = \mathrm{Hom}_B(P, B)$$