Lec7. HW.2.

$$B_\tau(y) = \sum_{y^{(\tau+1)},\dots,y^{(m)}=1}^{C} \exp\left(\sum_{k=\tau+2}^{m} \xi^T\varphi_i^{(k)}(y^{(k)}, y^{(k-1)}) + \xi^T\varphi_i^{(\tau+1)}(y^{(\tau+1)}, y)\right)$$

ここで、$B_{\tau+1}(y^{(\tau+1)})$ は、

$$B_{\tau+1}(y^{(\tau+1)}) = \sum_{y^{(\tau+2)},\dots,y^{(m)}}^{C} \exp\left(\sum_{k=\tau+2}^{m} \xi^T\varphi_i^{(k)}(y^{(k)}, y^{(k-1)})\right) \quad \cdots \text{①}$$

$$B_\tau(y) = \sum_{y^{(\tau+1)}=1}^{C} \underbrace{\sum_{y^{(\tau+2)},\dots,y^{(m)}=1}^{C} \exp\left(\sum_{k=\tau+2}^{m} \xi^T\varphi_i^{(k)}(y^{(k)}, y^{(k-1)})\right)}_{\text{①}} \cdot \exp\left(\xi^T\varphi_i^{(\tau+1)}(y^{(\tau+1)}, y)\right)$$

$$= \sum_{y^{(\tau+1)}=1}^{C} B_{\tau+1}(y^{(\tau+1)}) \cdot \exp\left(\xi^T\varphi_i^{(\tau+1)}(y^{(\tau+1)}, y)\right)$$

より、示された。

48-196606 [illegible]