In the result tables you can see some of the factuals that were generated by our model and the model of [1].

Factual Seq.				Our CF Seq.				DiCE4EL CF Seq.		
Amount	Activity	Outcome	Resource	Amount	Activity	Outcome	Resource	Activity	Resource	Amount
	A-SUBMITTED	0	112	155	A-SUBMITTED	1	112			
	A-PARTLYSUBMITTED	0	112	14214	A-PARTLYSUBMITTED	1	112			
	A-PREACCEPTED	0	101	14715	A-PREACCEPTED	1	112			
	W-Afhandelen leads	0	101	15372	A-ACCEPTED	1	9	A-SUBMITTED	112	
	A-ACCEPTED	0	111	138	O-SELECTED	1	912	A-PARTLYSUBMITTED	112	
	O-SELECTED	0	111	14962	A-FINALIZED	1	912	A-PREACCEPTED	112	
	A-FINALIZED	0	111	14887	O-CREATED	1	111	A-ACCEPTED	1	
	O-CREATED	0	111	14597	O-SENT	1	103	O-SELECTED	1	
	O-SENT	0	111	15235	W-Completeren aanvraag	1	111	A-FINALIZED	1	
	W-Completeren aanvraag	0	111	15473	W-Nabellen offertes	1	111	O-CREATED	1	
	W-Nabellen offertes	0	111					O-SENT	1	
	O-CANCELLED	0	111					W-Completeren aanvraag	1	
	A-CANCELLED	0	111					O-SENT-BACK	11259	
	W-Nabellen offertes	0	111	14474	W-Nabellen offertes	1	111	W-Nabellen offertes	11259	
				14715	A-REGISTERED	1	111	O-ACCEPTED	9	

Table 1: A comparison between the CBI-ES-UC3-SBM-RR and D4EL

Factual Seq.				Our CF Seq.				DiCE4EL CF Seq.		
Amount	Activity	Outcome	Resource	Amount	Activity	Outcome	Resource	Activity	Resource	Amount
	A-SUBMITTED	0	112		A-SUBMITTED	1	112			
	A-PARTLYSUBMITTED	0	112		A-PARTLYSUBMITTED	1	112			
	A-PREACCEPTED	0	101		A-PREACCEPTED	1	112			
	W-Afhandelen leads	0	101					A-SUBMITTED	112	
	A-ACCEPTED	0	111					A-PARTLYSUBMITTED	112	
	O-SELECTED	0	111		A-ACCEPTED	1	111	A-PREACCEPTED	112	
	A-FINALIZED	0	111		O-SELECTED	1	111	A-ACCEPTED	1	
	O-CREATED	0	111		A-FINALIZED	1	111	O-SELECTED	1	
	O-SENT	0	111		O-CREATED	1	111	A-FINALIZED	1	
	W-Completeren aanvraag	0	111		O-SENT	1	111	O-CREATED	1	
	W-Nabellen offertes	0	111		W-Completeren aanvraag	1	111	O-SENT	1	
	O-CANCELLED	0	111					W-Completeren aanvraag	1	
	A-CANCELLED	0	111		W-Nabellen offertes	1	111	O-SENT-BACK	11259	
	W-Nabellen offertes	0	111		W-Nabellen offertes	1	111	W-Nabellen offertes	11259	
					O-ACCEPTED	1	629	O-ACCEPTED	9	

Table 2: A comparison between the CBI-RWS-OPC-SBM-FSR and D4EL

In this section we show how both models (*CBI-ES-UC3-SBM-RR* and *CBI-RWS-OPC-SBM-FSR*), that the models are capable of changing the outcome of the factual. Both models also return reasonable counterfactuals. However, *CBI-ES-UC3-SBM-RR* appears to be more consistent with the counterpart of [1]. Especially in terms of the activity sequence. For instance, both, our counterfactual and the D4EL counterfactual recognize that after O-SENT, there has to be an O-SENT-BACK that eventually leads to an accpetance of the counterfactual. Both evolutionary algorithms also manage to start the process with the correct sequence of A-SUBMITTED, A-PARTLYSUBMITTED and A-PREACCEPTED. Furthermore, our model appears to be much closer in terms of sequences than the model by Hsieh, Moreira, and Ouyang. *CBI-RWS-OPC-SBM-FSR* (the model that only chooses the fittest survivors) has gaps. These gaps are an indication that the model also attempts to align towards the correct structure of the factual model. We do not see that in *CBI-ES-UC3-SBM-RR*, as it ranks feasibility above similarity and sparcity. Introducing gaps automatically reduces the feasibility of the model.

We also see, that the value for *Amount* fluctuates for the evolutionary generators. Similar, holds for the resource field. The model tends to focus on event structure first and event attributes second. This might be seen as a limitting factor when it comes to event attributes. However, one could argue

that the most revealing information the counterfactuals provide for sequences are within the sequence structure and less the event attributes.