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
5 000	A-SUBMITTED	0	112	15 105	A-SUBMITTED	1	112			
5 000	A-PARTLYSUBMITTED	0	112	14 214	A-PARTLYSUBMITTED	1	112			
5 000	A-PREACCEPTED	0	101	14 716	A-PREACCEPTED	1	112			
5 000	W-Afhandelen leads	0	101	15 373	A-ACCEPTED	1	9	A-SUBMITTED	112	5 000
5 000	A-ACCEPTED	0	111	15 038	O-SELECTED	1	912	A-PARTLYSUBMITTED	112	5 000
5 000	O-SELECTED	0	111	14 962	A-FINALIZED	1	912	A-PREACCEPTED	112	5 000
5 000	A-FINALIZED	0	111	14 887	O-CREATED	1	111	A-ACCEPTED	1	5 000
5 000	O-CREATED	0	111	14 597	O-SENT	1	103	O-SELECTED	1	5 000
5 000	O-SENT	0	111	15 236	W-Completeren aanvraag	1	111	A-FINALIZED	1	5 000
5 000	W-Completeren aanvraag	0	111	15 474	W-Nabellen offertes	1	111	O-CREATED	1	5 000
5 000	W-Nabellen offertes	0	111					O-SENT	1	5 000
5 000	O-CANCELLED	0	111					W-Completeren aanvraag	1	5 000
5 000	A-CANCELLED	0	111					O-SENT-BACK	11259	5 000
5 000	W-Nabellen offertes	0	111	14 474	W-Nabellen offertes	1	111	W-Nabellen offertes	11259	5 000
				14 716	A-REGISTERED	1	111	O-ACCEPTED	9	5 000

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
5 000	A-SUBMITTED	0	112	7 000	A-SUBMITTED	1	112			
5 000	A-PARTLYSUBMITTED	0	112	7 000	A-PARTLYSUBMITTED	1	112			
5 000	A-PREACCEPTED	0	101	7 000	A-PREACCEPTED	1	112			
5 000	W-Afhandelen leads	0	101					A-SUBMITTED	112	5 000
5 000	A-ACCEPTED	0	111					A-PARTLYSUBMITTED	112	5 000
5 000	O-SELECTED	0	111	7 000	A-ACCEPTED	1	111	A-PREACCEPTED	112	5 000
5 000	A-FINALIZED	0	111	7 000	O-SELECTED	1	111	A-ACCEPTED	1	5 000
5 000	O-CREATED	0	111	7 000	A-FINALIZED	1	111	O-SELECTED	1	5 000
5 000	O-SENT	0	111	7 000	O-CREATED	1	111	A-FINALIZED	1	5 000
5 000	W-Completeren aanvraag	0	111	7 000	O-SENT	1	111	O-CREATED	1	5 000
5 000	W-Nabellen offertes	0	111	7 000	W-Completeren aanvraag	1	111	O-SENT	1	5 000
5 000	O-CANCELLED	0	111					W-Completeren aanvraag	1	5 000
5 000	A-CANCELLED	0	111	7 000	W-Nabellen offertes	1	111	O-SENT-BACK	11259	5 000
5 000	W-Nabellen offertes	0	111	7 000	W-Nabellen offertes	1	111	W-Nabellen offertes	11259	5 000
				7 000	O-ACCEPTED	1	629	O-ACCEPTED	9	5 000

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*), 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 appeasrs at least one *W-Completeren aanvraag* and one *W-Nabellen offertes* that eventually leads to an accpetance of the counterfactual. Both generate the latter activity correctly aligned with the factual. For instance, 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.