

1 b

Flying	NNP	2	compound	
planes	NNS	5	nsubj	
can	MD	5	aux	
be	VB	5	cop	
dangerous	JJ	0		ROOT
.	.	5	punct	

In this sentence the meaning of the sentence is flying planes can be dangerous and when we put that in the english it would make sense but the parser is trying to say that the plane which is flying can be dangerous and that's how it's interpreted by the parser while processing this sentence.

Amid	IN	3	case	
the	DT	3	det	
chaos	NN	5	obl	
I	PRP	5	nsubj	
saw	VBD	0	ROOT	
her	PRP\$	7	nmod:poss	
duck	NN	5	obj	
.	.	5	punct	

In this sentence the meaning of the sentence is amid the chaos I saw her duck and when we put that in the english it would make sense as that while she was having argument someone threw something at her and she dodged it but the parser has associated that duck with saw and that can also mean that duck is a animal and while in she was in the chaos she saw the duck and that's how it might be interpreted by the parser while running this sentence.

The	DT	2	det
burglar	NN	3	nsubj
robbed	VBD	0	ROOT
the	DT	5	det
woman	NN	3	obj
with	IN	8	case
the	DT	8	det
knife	NN	3	obl
.	.	3	punct

In this sentence the meaning of the sentence is the burglar robbed the woman with the knife and when we put that in the english it would make sense as the woman got robbed by the burglar who had knife with him but the parser is unable to know that who has the knife and which person attacked the which person because woman, burglar, knife is associated with the robbed so based on that parser doesn't identify and that's how it's interpreted by the parser while running this sentence.

2

$$\forall x \text{Budget}(x) \Rightarrow \neg \text{IndirectCosts}(x)$$

1. $\forall x \neg \text{AcceptGRFP}(x) \Rightarrow \text{PossibleEligible}(x)$ - This sentence means for everyone who has never accepted GRFP are possible eligible candidate. Original sentence: Have never previously accepted a Graduate Research Fellowship.
2. $\forall x \text{AppliedOnceYear}(x) \Rightarrow \neg \text{ApplicableCandidate}(x)$ - This sentence means for every who applied once a year is not a applicable candidate for GRFP. Original sentence: An eligible applicant may submit only one application per annual competition.

3. $\forall x(\text{UnderGradSenior}(x) \vee \text{BachelorDegreeNeverEnrolled}(x)) \Rightarrow \neg \text{NumberTimesRestrictionBefore}(x)$ - For everyone who is undergrad seniors or the bachelor degree holder who never applied has no restriction on how many times they apply before enrolling to that program. Original sentence: Undergraduate seniors and Bachelor's degree holders who have never enrolled in a graduate degree program have no restrictions on the number of times they can apply before enrolling in a degree-granting graduate program.
4. $\forall x \text{EligibleGRFP}(x) \Rightarrow \neg \text{CurrentNSFEmployee}(x)$ - For every to be eligible for the GRFP program he/she should not be the employee of NSF currently to be eligible for that program. Original sentence: Not be a current NSF employee
5. $\forall x \text{Eligible}(x) \Rightarrow (\text{USCitizen}(x) \vee \text{National}(x) \vee \text{PR}(x))$ - For every eligible person he/she must be US Citizen or national or PR card holder. Original sentence: Be a U.S. citizen, national, or permanent resident

3

NP → ideas (5%) NP → sleep (5%) VP → sleep (5%) N → ideas (30%) N → sleep (20%) V → sleep (30%) Adj → colorless (100%) Adj → green (100%) Adv → furiously (100%)

colorless	green	ideas	sleep	furiously
Adj(1.0)	Adjp(0.5)	NP(0.0045), NP(0.01)	NP(0.0005625), NP(0.00005625), NP(0.00005625), NP(0.0001875), NP(0.000125), S(0.000135), S(0.0003)	NP(0.000016875), NP(0.00016875), NP(0.000375), NP(0.00016875), NP(0.000375), S(0.000405), S(0.0009)

x	Adj(1.0)	NP(.015)	NP(0.0001875, S(0.00045), NP(0.0001875)	S(0.00135), NP(0.0005625, NP(0.0005625)
x	x	N(0.3), NP(0.05)	S(0.0015), NP(0.000625)	S(0.0045), NP()
x	x	x	N(0.2), V(0.3), NP(0.05), VP(0.05)	VP(0.15)
x	x	x	x	Adv(1.0)