## Stress, Empathy and White Flags: The functions and mechanisms of post-conflict affiliation in chimpanzees Sonja E. Koski and Elisabeth H.M. Sterck

Chimpanzees use a wide array of behaviours to manage conflicts of interest that emerge in their daily life. The two best known post-conflict behaviours are reconciliation between conflict opponents and affiliation between an opponent and a third party ('consolation'). I will present results stemming from 3 years of observational research on chimpanzees of the Arnhem Zoo, which aimed to determine the functions and mechanisms of these behaviours.

First, I will discuss how the mechanism of reconciliation is intertwined with its function, as proposed in the integrated hypothesis (Aureli 1997). It states that the quality of opponent's relationship determines both the likelihood of reconciliation and the amount of post-conflict anxiety they experience. Anxiety may thus act as a mediator of reconciliation. We tested the integrated hypothesis and found support for it. Our results agreed with the function of reconciliation in relationship repair, and confirmed the interdependence of post-conflict anxiety, relationship quality and reconciliation.

Second, I will discuss third party affiliation. The connection of its functions and mechanisms is less well studied, and has mostly been based on assumptions. Specifically, it is thought to function in alleviating stress of the recipient of affiliation with no particular benefits for the actor (third party), and to stem from empathy by the actor. However, I will argue that third party affiliation may encompass more than 'empathic consolation'. Our results suggest that there may be several functions to it, one of which is for the benefit of the actor. I propose that the once uniform behavioural category of 'consolation' should be scrutinized for the costs and benefits for all interaction partners, and for the possibility of several functionally distinct phenomena. I will also discuss the possible mechanisms beneath third party affiliation, including the possibility of empathy.