CLAIMS

1. A method for wireless communication performed by a user equipment (UE), comprising: receiving, from a network entity, one or more downlink grants scheduling a set of downlink transmissions; receiving, from the network entity, a single uplink grant that schedules uplink resources for a physical uplink shared channel (PUSCH) to be transmitted by the UE to the network entity, the uplink grant comprising a field indicating a number of downlink transmissions for which the UE is to transmit feedback information in the PUSCH receiving, from the network entity, a subsequent downlink grant after receiving the single uplink grant, the subsequent downlink grant scheduling another downlink transmission that is not in the set of downlink transmissions and that has a higher priority than the set of downlink transmissions, the scheduled uplink resources for the PUSCH not including uplink resources for the other downlink transmission; receiving, from the network entity, a plurality of downlink transmissions including one or more of the set of downlink transmissions and including the other downlink transmission; generating the feedback information based on the reception of the plurality of downlink transmissions, the feedback information including: a first indication, for each received downlink transmission of the plurality of downlink transmissions, of whether the downlink transmission was successfully received or unsuccessfully received, and based on the number of downlink transmissions for which the UE is to transmit feedback information in the PUSCH being greater than the number of received downlink transmissions in the plurality of downlink transmissions, a second indication, for each of one or more missed downlink transmissions of the set of downlink transmissions, that the downlink transmission was not received; rate-matching uplink data around the feedback information in the PUSCH based on the indication of the number of downlink transmissions for which the UE is to transmit feedback information; and transmitting the PUSCH to the network entity.

2. The method of claim 1, wherein: the indication of the number of downlink transmissions for which the UE is to transmit feedback information in the PUSCH is indicated in a downlink assignment index (DAI) transmitted in the uplink grant.

3. The method of claim 1, wherein: the uplink grant further comprises a grant of uplink feedback resources for transmission of the feedback information associated with the plurality of downlink transmissions, and wherein the method further comprises; determining whether the uplink feedback resources include resources for feedback for each of the plurality of downlink transmissions; and puncturing a portion of the PUSCH that is outside of the uplink feedback resources with feedback information for at least a first downlink transmission of the plurality of downlink transmissions based at least in part on determining that the uplink feedback resources do not include resources for feedback for the first downlink transmission.

4. A method for wireless communication performed by a base station, comprising: transmitting, to a user equipment (UE), one or more downlink grants scheduling a set of downlink transmissions; transmitting, to the UE, a single uplink grant that schedules uplink resources for a physical uplink shared channel (PUSCH) to be transmitted by the UE to the network entity, the uplink grant comprising a field indicating a number of downlink transmissions for which the UE is to transmit feedback information in the PUSCH; transmitting, to the UE, a subsequent downlink grant after transmitting the single uplink grant, the subsequent downlink grant scheduling another downlink transmission that is not in the set of downlink transmissions and that has a higher priority than the set of downlink

transmissions, the scheduled uplink resources for the PUSCH not including uplink resources for the other downlink transmission; transmitting, to the UE, the set of downlink transmissions and the other downlink transmission; and receiving the PUSCH from the UE, the PUSCH including the feedback information and uplink data rate-matched around the feedback information, the rate-matching being based on indication of the number of downlink transmissions for which the UE is to transmit feedback information; wherein the feedback information includes: a first indication, for each downlink transmission received by the UE, of whether the downlink transmission was successfully received or unsuccessfully received, and based on the number of downlink transmissions for which the UE is to transmit feedback information in the PUSCH being greater than the number of downlink transmissions received by the UE, a second indication, for each of one or more missed downlink transmissions of the set of downlink transmissions, that the downlink transmission was not received.

5. The method of claim 4, wherein: the indication of the number of downlink transmissions for which the UE is to transmit feedback information in the PUSCH is indicated in a downlink assignment index (DAI) transmitted in the uplink grant.

6. A user equipment (UE) comprising: a processor; memory in electronic communication with the processor; and instructions stored in the memory and operable, when executed by the processor, to cause the apparatus to: receive, from a network entity, one or more downlink grants scheduling a set of downlink transmissions; receive, from the network entity, a single uplink grant that schedules uplink resources for a physical uplink shared channel (PUSCH) to be transmitted by the UE to the network entity, the uplink grant comprising a field indicating a number of downlink transmissions for which the UE is to transmit feedback information in the PUSCH; receive, from the network entity, a subsequent downlink grant after receiving the single uplink grant, the subsequent downlink grant scheduling another downlink transmission that is not in the set of downlink transmissions and that has a higher priority than the set of downlink transmissions, the scheduled uplink resources for the PUSCH not including uplink resources for the other downlink transmission; receive, from the network entity, a plurality of downlink transmissions including one or more of the set of downlink transmissions and including the other downlink transmission; generate the feedback information based on the reception of the plurality of downlink transmissions, the feedback information including: a first indication, for each received downlink transmission of the plurality of downlink transmissions, of whether the downlink transmission was successfully received or unsuccessfully received, and based on the number of downlink transmissions for which the UE is to transmit feedback information in the PUSCH being greater than the number of received downlink transmissions in the plurality of downlink transmissions, a second indication, for each of one or more missed downlink transmissions of the set of downlink transmissions, that the downlink transmission was not received; rate-match uplink data around the feedback information in the PUSCH based on the indication of the number of downlink transmissions for which the UE is to transmit feedback information; and transmit the PUSCH to the network entity.

7. The UE of claim 6, wherein: the indication of the number of downlink transmissions for which the UE is to transmit feedback information in the PUSCH is indicated in a downlink assignment index (DAI) transmitted in the uplink grant.

8. The UE of claim 6, wherein: the uplink grant further comprises a grant of uplink feedback resources for transmission of the feedback information associated with the plurality of downlink transmissions, and wherein the method further comprises; determining whether the uplink feedback resources include resources for feedback for each of the plurality of

downlink transmissions; and puncturing a portion of the PUSCH that is outside of the uplink feedback resources with feedback information for at least a first downlink transmission of the plurality of downlink transmissions based at least in part on determining that the uplink feedback resources do not include resources for feedback for the first downlink transmission.

9. A base station comprising: a processor; memory in electronic communication with the processor; and instructions stored in the memory and operable, when executed by the processor, to cause the apparatus to: transmit, to a user equipment (UE), one or more downlink grants scheduling a set of downlink transmissions; transmit, to the UE, a single uplink grant that schedules uplink resources for a physical uplink shared channel (PUSCH) to be transmitted by the UE to the network entity, the uplink grant comprising a field indicating a number of downlink transmissions for which the UE is to transmit feedback information in the PUSCH; transmit, to the UE, a subsequent downlink grant after transmitting the single uplink grant, the subsequent downlink grant scheduling another downlink transmission that is not in the set of downlink transmissions and that has a higher priority than the set of downlink transmissions, the scheduled uplink resources for the PUSCH not including uplink resources for the other downlink transmission; transmit, to the UE, the set of downlink transmissions and the other downlink transmission; and receive the PUSCH from the UE, the PUSCH including the feedback information and uplink data rate-matched around the feedback information, the rate-matching being based on indication of the number of downlink transmissions for which the UE is to transmit feedback information; wherein the feedback information includes: a first indication, for each downlink transmission received by the UE, of whether the downlink transmission was successfully received or unsuccessfully received, and based on the number of downlink transmissions for which the UE is to transmit feedback information in the PUSCH being greater than the number of downlink transmissions received by the UE, a second indication, for each of one or more missed downlink transmissions of the set of downlink transmissions, that the downlink transmission was not received.

10. The base station of claim 9, wherein: the indication of the number of downlink transmissions for which the UE is to transmit feedback information in the PUSCH is indicated in a downlink assignment index (DAI) transmitted in the uplink grant.