Async Function Updates

Updates from Last Time

- Complete spec available: https://github.io/tc39/ecmascript-asyncawait

- Removed await *

- Implemented in Babel & Regenerator, lots of positive feedback.

Design Questions

- Async arrow functions:
  - async (a, b) => await a + await b;
  - (a, b) @=> await a + await b;
- Newing an async function:
  - Error
  - Promise-for-instance
- Errors in Parameter Initializer
  - Align with Generators – error is thrown out of the async function
  - Ideal semantics: error causes returned promise to reject

Design Questions Continued

- Await synchronous things synchronously
  - `await 1` - does it trigger a turn of the event loop as in the desugaring?
  - Allow synchronous await but ensure promise resolution is async?
  - Do neither and allow returning an already-resolved promise?
- Promise Cancellation:
  - Depends on cancellation at the promise level
  - Urge champions to consider ergonomics with async functions
- Await at top-level
  - Can you await at the top level of a module?
  - Handy especially for Node.