I get an unused variable warning in Charm++ v6.8.0-beta2 that was not present in v6.7.1. It appears in the generated def.h files for classes in the _call_ArchiveChare_CkMigrateMessage(void *impl_msg, void *impl_obj_void) function. The warning is:

ArchiveChare < System > * impl_obj = static_cast<ArchiveChare < System > *>(impl_obj_void);

and the relevant code in the header file is:

```c
void CkIndex_ArchiveChare<System>::_call_ArchiveChare_CkMigrateMessage(
    void *impl_msg, void *impl_obj_void)
{
    ArchiveChare<System> *impl_obj =
        static_cast<ArchiveChare<System>*>(impl_obj_void);
    call_migration_constructor<ArchiveChare<System>> c = impl_obj_void;
    c((CkMigrateMessage *)impl_msg);
}
```

In charm v6.7.1 the function was:

```c
void CkIndex_ArchiveChare<System>::_call_ArchiveChare_CkMigrateMessage(
    void *impl_msg, void *impl_obj_void)
{
    ArchiveChare<System> *impl_obj =
        static_cast<ArchiveChare<System>*>(impl_obj_void);
    new (impl_obj) ArchiveChare<System>({CkMigrateMessage *})impl_msg);
}
```

if this isn't a bug then it looks like the cast

```c
ArchiveChare<System> *impl_obj =
    static_cast<ArchiveChare<System>*>(impl_obj_void);
```

simply shouldn't be generated anymore.

Phil currently has access to our BitBucket repo and is welcome to test this on the main branch, feature/spectre_2b once I have the other charm++ v6.8.0-beta2 patches in the Support/Charm directory. I am also happy to test patches to see if they fix the issue. We are already ignoring a lot of warnings in Charm++ header files, but this one seems like an easy one to actually fix.
We recently made migration constructors unnecessary for chares that never actually migrate, so I think this is related to those changes. Phil may have more insight into this, so adding him as a watcher.

Okay, that could be related then. Currently we have the migration constructors defined but are empty, e.g.

```cpp
explicit ArchiveChare(CkMigrateMessage* /*msg*/) {}
```

in case that's helpful.

Assignee set to Nitin Bhat

Priority changed from Normal to High

Status changed from New to Implemented

Fix: [https://charm.cs.illinois.edu/gerrit/#/c/2435/](https://charm.cs.illinois.edu/gerrit/#/c/2435/)